

REPORT ON THE 2023-2026 STABILITY PROGRAMME UPDATE

REPORT 21/23

May 11th, 2023



Independent Authority
for Fiscal Responsibility



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for Fiscal Responsibility

The mission of the Independent Authority for Fiscal Responsibility, AAI (AIReF) is to ensure strict compliance with the principles of budgetary stability and financial sustainability enshrined in Article 135 of the Spanish Constitution.

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EXECUTIVE SUMMARY

The Independent Authority for Fiscal Responsibility, AAI(AIReF) is commissioned with reporting on the content of the 2023-2026 Stability Programme Update (SPU), in terms of both the macroeconomic forecasts and its fiscal scenario, in compliance with the mandate of Articles 14 and 16 of Organic Law 6/2013 on the establishment of AIReF. Previously, on April 28th, AIReF endorsed the macroeconomic forecasts of the SPU, warning of the existence of downside risks beyond the short term arising from the drastic change in the financing conditions of the economy that has taken place over recent months.

This year's SPU is framed in the context of the transition towards a new fiscal governance framework, which, following the presentation of the EC legislative proposals on April 26th, should be finalised in the coming months with a view to its entry into force in 2024. This new framework is designed to strengthen the medium-term orientation of fiscal policy, placing debt sustainability at the heart of the framework. In addition, differentiated objectives are set for each of the EU Member States to implement in "fiscal-structural plans".

In fact, despite keeping the escape clause activated, the European Commission, in its fiscal policy guidance, recommended that the Stability or Convergence Programmes for the period 2023-2026 should now include medium-term fiscal-structural plans that ensure that (i) debt is maintained on a plausible and continuous downward path or at prudent levels and that (ii) the deficit is reduced below 3% GDP over the period covered by the Stability

Programme and remains below that level at unchanged policies over the medium term¹.

This year's SPU has followed the design of previous years. In this regard, as AIReF has mentioned on several occasions, the SPU does not constitute a genuine medium-term planning instrument, since the commitments or objectives are reviewed from year to year, without there being an analysis of the factors that justify this review. Furthermore, the programmes do not contain details of the fiscal measures beyond those approved in the current year's budgets.

On the one hand, the 2023-2026 SPU meets the commitment to reduce the public deficit below 3% of GDP over the projection horizon, although AIReF estimates a stabilisation of the deficit at around 3% from 2024. In addition, the debt-to-GDP ratio is set to fall over the period, driven mainly by nominal GDP growth in both the SPU and AIReF scenarios.

However, in this new context, the analysis of the sustainability of public finances and the factors underlying it, such as medium-term growth, demographics and other fiscal risks, such as those associated with climate change, etc., takes on even greater importance.

In this regard, AIReF's projections show that debt would start on an upward path from 2030 in the absence of additional measures. AIReF therefore considers that when the new framework enters into force, and if it remains in line with the EC legislative proposals, additional adjustment measures will be necessary to place the debt path on a downward trajectory in the coming years with sufficient plausibility.

2023-2026 Macroeconomic Scenario

AIReF considers that the macroeconomic scenario of the 2023-2026 SPU is feasible and as such endorsed it on April 28th. The Government's scenario forecasts real GDP growth of 2.1% in 2023 and 2.4% in 2024. In 2025 and 2026, real growth turns downwards as there is a convergence towards potential growth, which the Government estimates at 1.6%. Regarding prices, the Government's scenario envisages high growth in the GDP deflator and private consumption in 2023 (of 4% and 3.9%, respectively), which moderate in the following years, converging at rates close to 2% at the end of the projection period. As a result of the above, expected nominal growth remains high over the medium-term horizon, particularly in 2023 and 2024, with rates of 6.1% and 5.9%, respectively, falling to 3.9% and 3.6% in 2025 and 2026.

¹ [Fiscal policy guidance \(europa.eu\)](https://europa.eu).

These forecasts fall throughout the projection period within the central probability range defined around AIReF's own estimates, both at current prices and at constant prices. They are therefore considered feasible and as such are endorsed.

GDP growth in the short term continues to surprise on the upside driven by the easing of bottleneck pressures in global value chains and by the relatively lower intensity of inflationary pressures on energy raw materials and by the fiscal policy measures to counter price hikes and sustain gross disposable income. In the opposite direction, the rapid and sharp rise in official interest rates is already reflected in a tightening of the economy's financing conditions and its effects are expected to begin to unfold more intensely in the second half of 2023 and in 2024. Overall, AIReF projects an increase in real GDP that would remain close to 2% over the whole of 2023 and 2024, somewhat lower than the Government's forecast. In the following years, as the boost provided by the RTRP on the GDP growth rate disappears, growth falls to around 1.7%, broadly in line with the Government's expectations.

AIReF's inflation projections are higher than those of the Government, particularly in 2023. In AIReF's scenario, the acceleration of wage demands projected for 2023 with the aim of partially recovering the purchasing power lost in 2022, contributes to slowing down the fall in inflation in the short term. In contrast, in the medium term, the disappearance of supply tensions and the gradual transfer of financial conditions to demand will allow prices to be contained.

FIGURE 1. GROSS DOMESTIC PRODUCT. VOLUME. (YEAR-ON-YEAR RATE OF CHANGE)

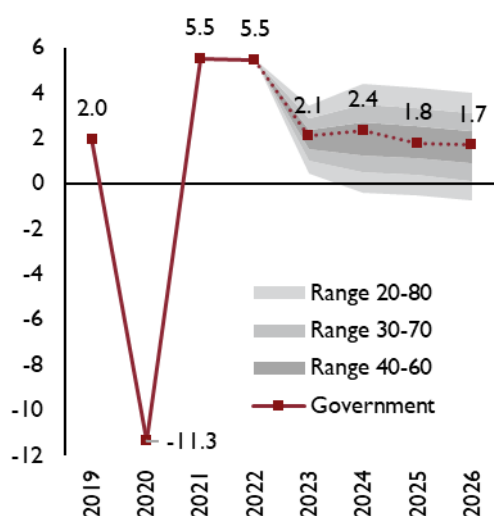
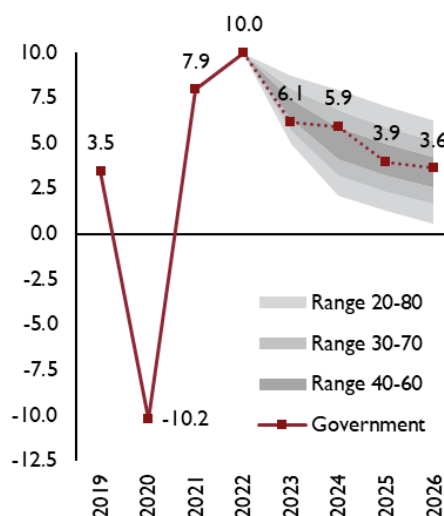


FIGURE 2. NOMINAL GDP (YEAR-ON-YEAR RATE OF CHANGE)

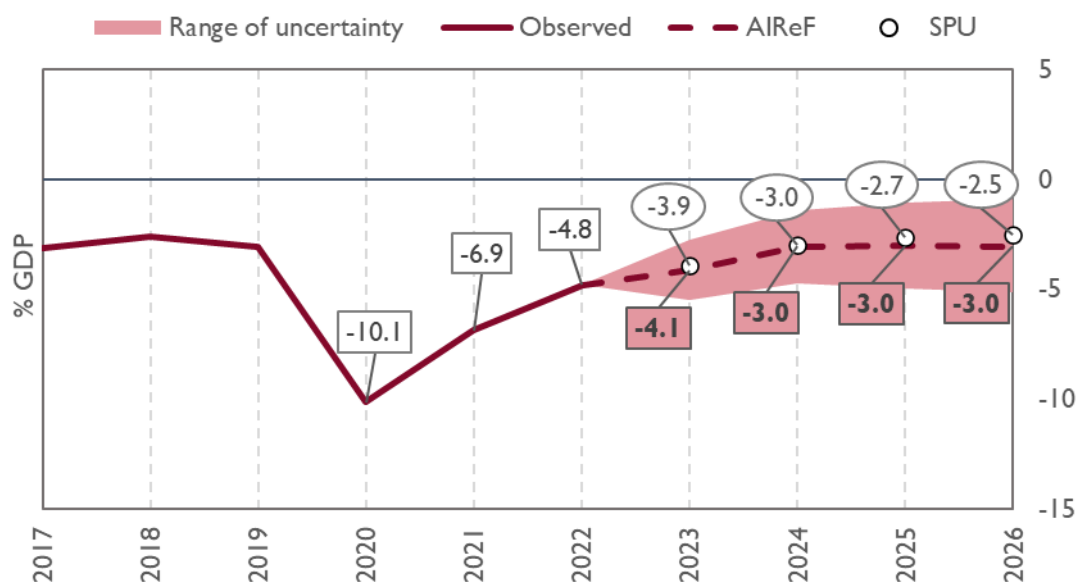


Source: Ministry of Economic Affairs and Digital Transformation and AIReF

2023-2026 fiscal scenario

AIReF estimates that the General Government (GG) deficit will stand at 3% of GDP in 2026, 0.5 points above the SPU forecast. For 2023, the AIReF considers that the deficit will be 0.2 points above the reference rate, while for 2024 both AIReF and the SPU expect a reduction of the deficit of around 1 point of GDP, mainly as a result of the withdrawal of temporary measures. The forecasts diverge once again from 2025 as the SPU includes a gradual reduction in the deficit between 2024 and 2026, while AIReF forecasts that it will stabilise around 3% from 2024.

FIGURE 3. EVOLUTION OF GENERAL GOVERNMENT BALANCE



Source: IGAE, SPU and AIReF

AIReF forecasts that the weight of revenue over GDP, excluding the RTRP, will stand at 43.2% in 2026, 0.6 points below the level of the SPU. These differences can already be seen for the end of 2023 and show an irregular profile for the rest of the period. In AIReF's scenario, the evolution of revenue is heavily conditioned by the timing of the withdrawal of temporary measures to both reduce and raise revenue. Thus, the withdrawal of the revenue-reducing measures and the continuation of the revenue-increasing measures result in an increase in revenue in 2024. This is followed in 2025 by the withdrawal of temporary levies and other revenue-increasing measures. This results in a reduction in revenue, which is offset by the cyclical evolution of revenue. Finally, the evolution in 2026 would be mainly explained by macroeconomic factors.

Differences can also be seen by component. The SPU has a higher level of taxes, 0.9 points of GDP in 2026, and social contributions, 0.1 points of GDP,

while AIReF estimates higher revenue from other revenue, amounting to 0.4 points of GDP. By type of tax, the differences are concentrated in taxes on income, which are 0.7 points higher in the SPU in 2023, widening to 1.3 points in 2026. For the other taxes, AIReF's forecast is 0.3 points higher in 2026 than that of the SPU. These differences would not be explained by differences in the underlying macroeconomic scenario.

The weight of expenditure as a proportion of GDP, excluding the RTRP, falls in AIReF's central scenario to 42.7% in 2026, 0.1 points below the figure included in the SPU. The reduction is concentrated in 2023 and 2024 due to the phasing out of measures to alleviate the increase in energy and food prices. Subsequently, expenditure will grow on average by close to 4% following its baseline evolution. Regarding its composition, AIReF estimates that the components of public consumption will reduce their weight compared with 2022. Furthermore, the withdrawal of the measures will lead to a reduction in the weight of subsidies and other expenditure, while the level of investment will remain unchanged. In contrast, the weight of social transfers in cash and interest expenditure over GDP will rise compared with 2022. Compared with the SPU, AIReF expects lower expenditure on public consumption, social benefits and subsidies and higher capital expenditure.

By sub-sector, the profile of the balance is highly conditioned by the impact of the settlements of the financing system of the territorial administrations and the transfers between sub-sectors. In 2024, the settlement of the financing systems will be high, which drives the improvement in the AR and LG balances, and the worsening of the CG balance, despite the withdrawal of the temporary measures. This settlement will be lower in 2025 with the opposite effect and will tend to normalise in 2026. Consequently, in 2026 the deficit of the CG will be partially offset by the surplus in the ARs and LGs. Although the profile is different, in 2026 the SPU also forecasts a surplus for the territorial administrations and a lower deficit than the one forecast by AIReF for the CG. For their part, the deficit of the Social Security Funds (SSFs), incorporating the new measures, will stabilise at around 0.3% of GDP as from 2024, reaching 0.2% in 2026. The differences with the SPU and the SSFs could be due to different assumptions about transfers from the CG.

TABLE 1. Evolution of the balance by sub-sector

	AIReF				SPU			
	2023	2024	2025	2026	2023	2024	2025	2026
GG	-4.1	-3.0	-3.0	-3.0	-3.9	-3.0	-2.7	-2.5
CG	-3.4	-3.5	-3.2	-3.2	-3.1	-3.0	-2.8	-2.8
SSFs	-0.6	-0.3	-0.3	-0.2	-0.5	-0.2	-0.1	0.0
ARs	-0.3	0.4	0.2	0.2	-0.3	0.0	0.1	0.1
LGs	0.2	0.3	0.2	0.2	0.0	0.2	0.1	0.2

Fiscal policy stance

The fiscal policy stance over the projection horizon is crucially dependent on the RTRP. The increase in expenditure from NGEU funds in 2023 sets the expansionary stance for fiscal policy, which is also driven, albeit to a lesser extent, by the dynamism of nationally financed investment. In contrast, nationally financed primary current expenditure net of revenue measures will grow below the medium-term potential rate – in line with the recommendation to Spain by the Council – partially offset by the expansionary tone of the previous elements.

Challenges foreseen from a perspective of the sustainability of public finances

The reduction of the public deficit together with the upturn in activity and much higher than expected inflation have managed to correct approximately one third of the increase in the debt ratio generated in the first year of the pandemic, placing it on a downward path. Under the macro-fiscal forecasts prepared by AIReF to assess the Stability Programme, the debt-to-GDP ratio is projected to fall by 5.9 points over the next four years to 107.3% in 2026. This reduction will mainly be supported by the growth in nominal GDP, where the deflator will make a very significant contribution. AIReF therefore considers the Government's debt projection included in the SPU for 2026 to be feasible, since, over the period as a whole, both the reduction in the ratio and the composition of the factors that determine its evolution are similar to those estimated by AIReF.

The new monetary cycle together with the high level of existing debt, places the sustainability of public finances at a highly vulnerable starting point. In its long-term baseline scenario, AIReF projects an increasing debt ratio following an initial period of a certain level of stabilisation. The expected increase in expenditure associated with the ageing of the population is one of the main challenges for the sustainability of public finances in the medium and long term. The high initial level of debt added to unbalanced public accounts will

generate an unfavourable trend in the financial burden even in a scenario of contained debt costs.

The creation of a fiscal space that will make it possible to address future shocks, such as those that have occurred in recent years, requires the design of a medium-term plan that will guide public accounts towards a situation of equilibrium. In this regard, the European Commission's guidelines together with its proposal for reform of the fiscal framework represent an opportunity and guidance for the preparation of a fiscal-structural plan.

AIReF's simulations show that the design of a fiscal strategy compatible with the European Commission's guidance would require a more demanding path than that contained in the Stability Programme Update. According to AIReF's calculations, the fiscal path that would comply with the Commission's guidance for the period 2024-2027 would require additional measures of 0.46 points per year. This adjustment (1.84 points accumulated in 4 years) would generate a reduction in the debt ratio of 24 points of GDP in the next 15 years, putting it on a clearly downward path. AIReF's simulations applied to the Government's fiscal scenario suggest that the design of a fiscal strategy compatible with the European Commission's guidance and with the proposed reform of the fiscal framework would also require an adjustment that, in this case, would stand at around 0.3 points per year.

Recommendations

During the period of suspension of fiscal rules, AIReF has been making recommendations to the Government to establish a medium-term fiscal strategy that will act as fiscal guidance and realistically and credibly ensure the financial stability of the General Government.

At this time, the European Commission has already published a comprehensive proposal to reform the framework of European fiscal rules, as well as guidelines on the content of the Stability Programme. In this regard, the SPU does not specify whether, after the end of the projection period, the debt remains on a plausible downward path as specified by the Commission. In addition, although the European fiscal framework that is eventually adopted may deviate from the current Commission proposal, it is already clear that it will not be fully compatible with the national fiscal framework. Therefore, AIReF makes the following recommendations to the Ministry of Finance and Civil Service:

- Start work on the reform of the national fiscal framework with the participation of the different tiers of the GG from a holistic perspective.
- Incorporate in the Resolution of the Council of Ministers setting stability targets an analysis of how the targets meet the requirement that the

debt should remain on a plausibly and continuously downward path and how this may be reached by each tier of government to ensure consistency in the distribution.

In addition, taking into account the relevance of economic growth for the sustainability of public finances, AIReF recommends that the Ministry of Economic Affairs and Digital Transformation design a governance model for evaluating the RTRP over the coming years.

AIReF also recommended, when publishing the endorsement on April 28th, improving the information provided with the request for the endorsement, as well as establishing an agreement or memorandum of understanding to regulate the endorsement procedure.

1 . INTRODUCTION

The law establishes that the Independent Authority for Fiscal Responsibility (AIReF) must prepare a report on the Stability Programme Update (SPU). The SPU represents the Government's main medium-term budget document and includes macroeconomic and fiscal forecasts for a four-year period. AIReF has to report on the macroeconomic forecasts underpinning the 2023-2026 SPU, as well as its budgetary scenario, in accordance with Articles 14 and 16 of Organic Law 6/2013 on the establishment of AIReF. Fiscal rules are suspended in 2023, but are expected to be reactivated from 2024.

On April 28th, AIReF endorsed the macroeconomic framework that underpins the 2023-2026 SPU. The endorsement was made with the information available up to April 28th, 2023. Therefore, it does not incorporate the economic policy measures contained in the SPU document. With this limitation, AIReF considered, on the basis of its own forecasts, that both the real and nominal GDP paths are feasible. As a result, it endorsed the medium-term macroeconomic scenario proposed by the Government.

At that time and with the aim of improving the endorsement process, AIReF repeated two recommendations to the Government. Firstly, it reiterated the need for adequate information on the budgetary and fiscal measures included in the macroeconomic scenario. Improving the supply of information is particularly important in the case of the Recovery, Transformation and Resilience Plan (RTRP), given the key role that it can play as a catalyst for

activity. Secondly, it stressed to the Government the need for the process of endorsing the macroeconomic forecasts to be regulated by an agreement between the parties or a Memorandum of Understanding.

Following submission of the SPU to the Commission on April 28th, 2023, AIReF performs its full macroeconomic and fiscal evaluation in this report. The analysis is divided into seven main sections. Following this introduction, the macroeconomic scenario is evaluated in Section Two. Section Three then analyses the fiscal scenario, with details of the evolution of revenue and expenditure for the General Government sector as a whole and the balance of each of the sub-sectors. This section provides information on the measures taken by the Government. Subsequently, Sections Four and Five analyse the fiscal risks and the orientation of the fiscal framework, respectively, followed by the debt sustainability analysis in Section Six. Finally, in Section Seven, AIReF makes a series of recommendations to the Government resulting from the analysis performed, in addition to those made at the time of the presentation of the endorsement of the macroeconomic outlook.

2. EVALUATION OF THE MACROECONOMIC SCENARIO

AIReF considers that the macroeconomic scenario of the 2023-2026 SPU is feasible and as such endorsed it on April 28th. The Government's scenario forecasts real GDP growth of 2.1% in 2023 and 2.4% in 2024. In 2025 and 2026, real growth turns downwards as there is a convergence towards potential growth, which the Government estimates at 1.6%. Regarding prices, the Government's scenario envisages high growth in the GDP deflator and private consumption in 2023 (of 4% and 3.9%, respectively), which moderate in the following years, converging at rates of close to 2% at the end of the projection period. As a result of the foregoing, expected nominal growth remains high over the medium-term horizon, particularly in 2023 and 2024, with rates of 6.1% and 5.9%, respectively, falling to 3.9% and 3.6% in 2025 and 2026. These forecasts fall throughout the projection period within the central probability range defined around AIReF's own estimates, both at current prices and at constant prices. They are therefore considered feasible and as such are endorsed.

The Spanish economy continues to perform more strongly than expected in the autumn of 2022, although forces of a conflicting nature converge over the projection horizon of the SPU. GDP growth in the short term continues to

surprise on the upside driven by the easing of bottleneck pressures in global value chains and by the relatively lower intensity of inflationary pressures on energy raw materials and by the fiscal policy measures to counter price hikes and sustain gross disposable income. In the opposite direction, the rapid and sharp rise in official interest rates is already reflected in a tightening of the economy's financing conditions and its effects are expected to begin to unfold more intensely in the second half of 2023 and in 2024. 2024 will also see the disappearance of the impact of the measures implemented to address the energy crisis. Tighter financial conditions might moderate the potential boost associated with the Recovery, Transformation and Resilience Plan (RTRP) by dampening its leverage on private investment. Overall, AIReF projects an increase in real GDP that would remain close to 2% in the whole of 2023 and 2024, somewhat lower than the Government's forecast. In the following years, as the boost provided by the RTRP on the GDP growth rate disappears, growth falls to around 1.7%, broadly in line with the Government's expectations.

Despite the moderation in energy prices, inflation is expected to remain high in the short term, subsequently slowing to converge with the ECB's monetary policy benchmark of 2%. The acceleration of wage demands projected for 2023 with the aim of partially recovering the purchasing power lost in 2022, contributes to slowing down the fall in inflation in the short term. In contrast, in the medium term, the disappearance of supply tensions and the gradual transfer of financial conditions to demand will allow prices to be contained. AIReF's inflation projections are higher than those of the Government, particularly in 2023.

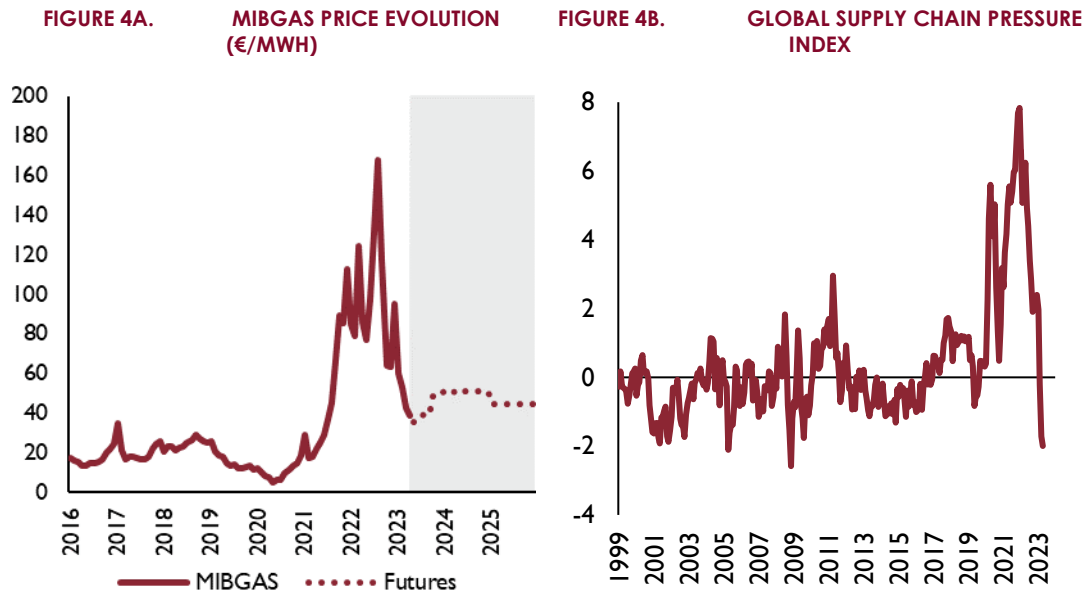
The following sections first present AIReF's macroeconomic scenario in order to subsequently assess the Government's scenario and analyse the main discrepancies. The third section discusses the risks underlying the Government's scenario and AIReF's own scenario. The section includes three boxes on some significant recent developments: the first presents evidence on the tightening of the financing conditions of the economy and how this passes through to economic activity; the second analyses in detail the intensity of the job creation process and its main features; the third focuses on analysing the recent behaviour of the external sector and, in particular, the composition of the dynamism in exports. Finally, in compliance with European recommendations, the analysis on the existence of systematic biases in the Government's forecasts is presented in Annex 1.

2.1. AIReF's macroeconomic scenario

This section describes the main features of the medium-term macroeconomic scenario estimated by AIReF as a basis for assessing the SPU scenario.

The global economy is currently subject to forces of different signs. The moderation of energy prices and the gradual easing of bottlenecks in global production chains², together with the impact of the measures implemented by governments to mitigate the impact of the energy crisis, have made it possible to avoid the most adverse scenarios that were expected a few months ago both in Spain and in other European economies.

FIGURE 4. ENERGY PRICES AND BOTTLENECKS IN GLOBAL VALUE CHAINS



Source: MIBGAS

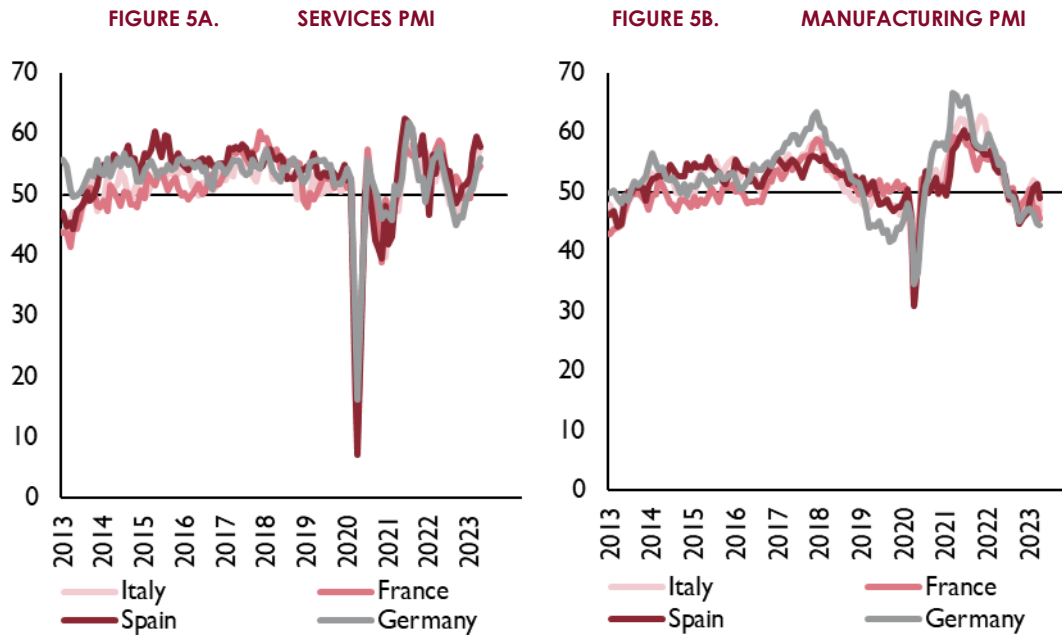
Source: New York Federal Reserve

The ability of European economies to adjust their energy demand and reconfigure their supply sources, together with favourable weather conditions, have enabled a notable fall in energy prices in international markets. This has made it possible to avoid the more destructive scenarios of supply cuts and rationing that were expected in the spring of 2022 and that might have caused a significant contraction in activity in Spain and Europe. However, energy prices remain at levels higher than those observed before the pandemic. This hinders the recovery of industrial activity affected by the increase in energy costs and weak global trade. This is reflected in a growing disparity between services and industry in European economies. Household

² According to information from the European Commission, the percentage of companies in the euro area reporting problems of shortages of raw materials and capital goods fell to 27.8% for the second quarter of 2023, after reaching a peak of 54.1% at the beginning of 2022 (although still exceeding the pre-2019 average of 7%).

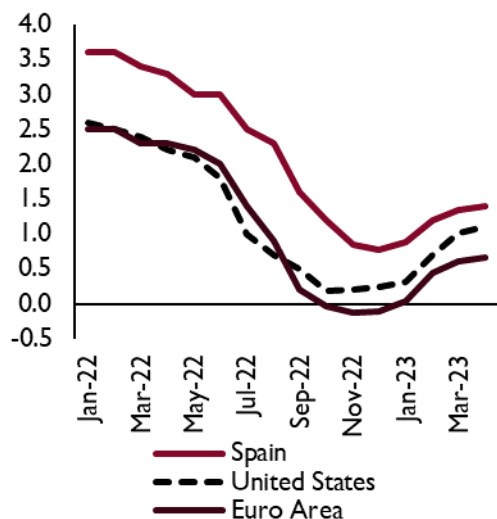
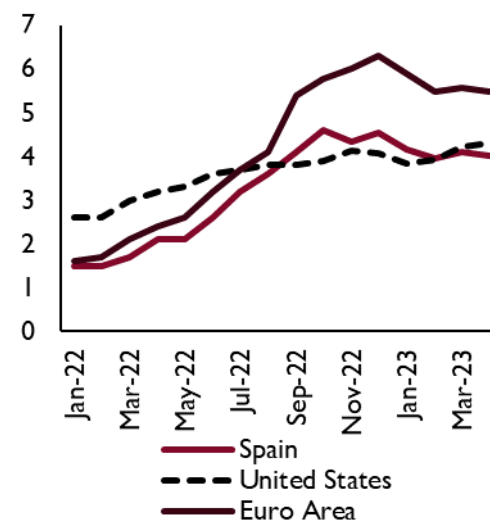
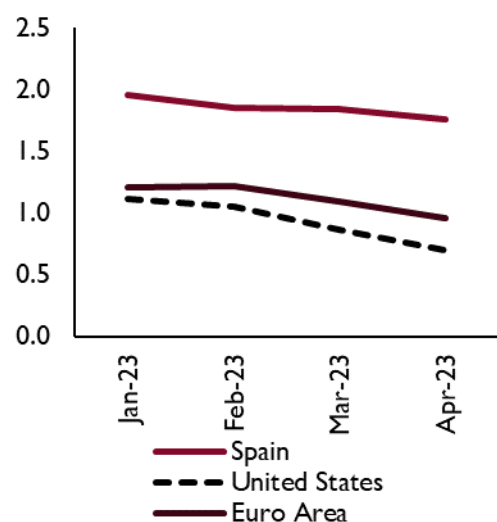
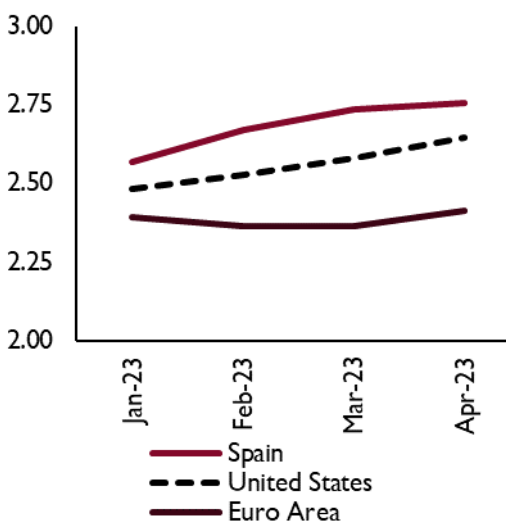
and business confidence levels have recovered from the fourth-quarter 2022 lows, but still remain below those observed prior to the war in Ukraine.

FIGURE 5. PMIS FOR SERVICES AND MANUFACTURING IN VARIOUS EURO AREA COUNTRIES (>50 INDICATES EXPANSION / <50 INDICATES CONTRACTION)



Source: S&P Global

While most private analysts and international institutions have revised their growth forecasts for 2023 upwards in the euro area and other advanced economies, downward revisions predominate in the medium term. The ECB's March 2023 macroeconomic projections for the euro area point to real GDP growth of 1% in 2023 as a whole, an upward revision compared with the 0.5% projected in December 2022. However, the projections for 2024 and 2025 are revised downwards to 1.6% in both years. At a global level, the International Monetary Fund's most recent forecasts point to a more contained slowdown in global economic activity in 2023 - to 2.8% - than projected in autumn 2022, while growth in 2024 is revised downwards to 3%. In this regard, despite the widespread buoyancy in labour markets following the pandemic, the IMF forecasts a greater weakness in global growth in the coming years, in a context of the materialisation of trends towards geopolitical fragmentation, the effects of the ageing population, together with the possible structural effects associated with the pandemic and the energy crisis.

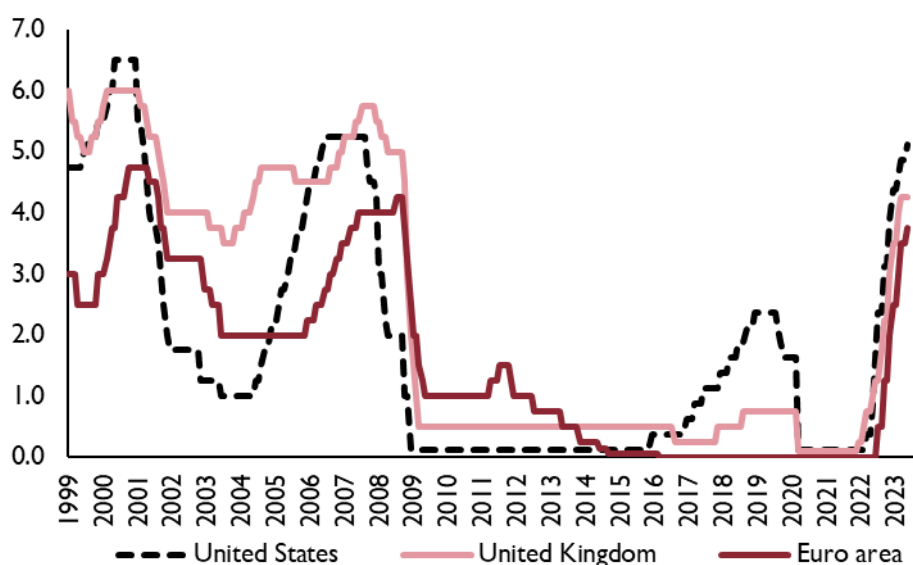
FIGURE 6. REAL GDP AND INFLATION FORECASTS FOR DIFFERENT COUNTRIES (YEAR-ON-YEAR RATE OF CHANGE, %)
FIGURE 6A. REAL GDP GROWTH FORECASTS FOR 2023

FIGURE 6B. INFLATION FORECASTS FOR 2023

FIGURE 6C. REAL GDP GROWTH FORECASTS FOR 2024

FIGURE 6D. INFLATION FORECASTS FOR 2024


Source: Consensus Forecasts

Regarding prices, there are no clear signs of moderation in core inflation, which has led to an intensification of the tightening of global financial conditions. In general, headline inflation has moderated as a result of energy, but core inflation remains elevated. This has led central banks to step up their policies of tightening financing conditions while continuing to shrink their balance sheets. Never before has there been such a rapid, intense and widespread rise in interest rates by the different central banks. Overall, there has been a cumulative rise of almost 400 basis points in global interest rates in under a year after a decade of near zero or even negative yields in some

countries. In the case of the Federal Reserve, the increase since March 2022 is close to 500 basis points, the fastest and most intense tightening cycle since the 1980s. For its part, the ECB has increased its main policy rates by almost 400 basis points since July of that year and in its last meeting announced further increases in the coming months.

FIGURE 7. EVOLUTION OF INTEREST RATES OF VARIOUS CENTRAL BANKS



Source: BIS, Bank of England, ECB (refinancing rate) and US Federal Reserve (average of the federal funds rate range)

The ECB's recent monetary policy decisions accentuate its contractionary stance. In particular, the ECB began the normalisation of its highly accommodative monetary policy in December 2021, when it began to slow the pace of net asset purchases. It subsequently ended purchases under the Pandemic Emergency Purchase Programme (PEPP) and the Asset Purchase Programme (APP) in March and June 2022, respectively. The first interest rate hike took place in July 2022. Since then, the deposit facility rate has moved from negative terrain to currently stand at 3.25% following the Council meeting on May 4th, 2023. In addition, the Governing Council plans to end reinvestments under the APP as of July 2023.

In short, the external context in which 2023-2026 SPU is framed is characterised by moderate global growth, although better than expected in the short term in Europe, and a significant tightening of the financing conditions of the economy. With these conditioning factors, AIR^eF has prepared its own macroeconomic scenario with the aim of assessing the Government's forecasts. This scenario is presented in 0 and the technical assumptions that support it in 0

TABLE 2. AIREF'S 2023-2026 MACROECONOMIC OUTLOOK

Year-on-Year Rates of Change	2022	2023	2024	2025	2026
Private Domestic Final Consumption Expenditure	4.4	1.0	2.6	1.9	1.7
General Government Final Consumption Expenditure	-0.7	1.3	0.6	1.1	1.0
GFCF	4.6	2.1	4.2	2.6	2.1
<i>GFCF Equipment and Cultivated Assets</i>	4.1	1.1	4.6	2.6	2.0
<i>GFCF Construction and Intellectual Property</i>	4.9	2.5	4.0	2.6	2.2
Domestic Demand*	3.1	1.2	2.4	1.9	1.6
Exports of Goods and Services	14.4	6.1	2.0	2.4	2.4
Imports of Goods and Services	7.9	4.4	3.1	2.5	2.5
External Balance*	2.4	0.8	-0.4	0.0	0.0
Gross Domestic Product	5.5	1.9	2.0	1.8	1.6
Nominal Gross Domestic Product	10.0	6.8	5.0	4.1	3.4
Gross Domestic Product Deflator	4.3	4.8	3.0	2.2	1.8
CPI	8.4	4.0	2.8	2.1	1.8
Full-Time Equivalent Employment	3.8	1.4	1.7	1.5	1.1
Unit Labour Cost	0.4	3.9	4.5	2.8	1.8
Productivity per Full-Time Employee	1.6	0.5	0.3	0.3	0.5
Compensation per Employee	2.0	4.4	4.7	3.1	2.2
Unemployment Rate (% of Active Population)	12.9	12.5	11.7	11.2	11.0
Household and NPISH Savings Rate (% Gross Disposable Income)	7.2	7.3	6.8	6.8	6.8

Source: INE and AIReF

TABLE 3. EXOGENOUS ASSUMPTIONS OF AIREF'S 2023-2026 MACROECONOMIC OUTLOOK

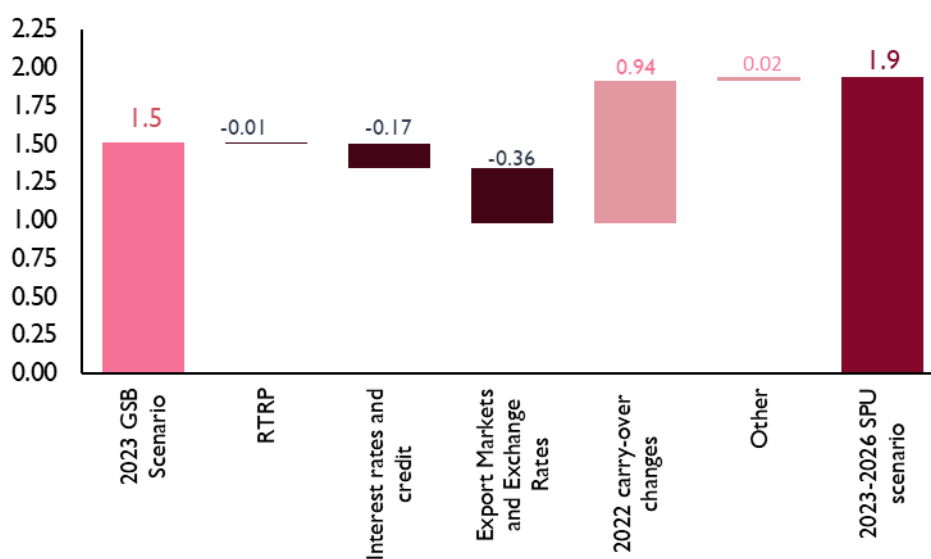
	2022	2023	2024	2025	2026
3-month Euribor (%)	0.3	3.3	3.2	2.8	2.7
Broad NEER	116.8	121.4	121.8	121.8	121.8
Exchange rate €/€	1.1	1.1	1.1	1.1	1.1
Oil (US \$/barrel)	103.7	83.0	77.8	73.5	70.3
TTF gas (€/Mwh)	132.2	50.1	56.5	47.8	36.8
MIBGAS (€/Mwh)	99.0	46.3	52.4	44.6	...
Export merc. (annual %)	7.9	1.9	2.5	3.2	3.1

Source: IMF, Refinitiv and MIBGAS

Growth prospects for 2023 point to a less intense slowdown than expected a few months ago. AIReF revises the expected growth for 2023 upwards to 1.9%, compared with the forecast of 1.5% included in the Report on the General

State Budget³. This revision incorporates the new figures from INE's Quarterly National Accounts (QNA) and the positive surprises from the most recent data (see Figure 8). In particular, the revision of the QNA figures for 2022 has been significant: in quarter-on-quarter terms, after contracting by 0.4% in the first quarter, it grew by 2.5% in the second quarter and by 0.4% in the last two quarters of 2022 - compared with the 0.3%, 1.1%, 0.2% and 0.2% in the QNA flash estimates. Furthermore, 2023 began with quarter-on-quarter growth of 0.5% and the known high frequency data for the second quarter of 2023 point to more buoyant behaviour than expected a few months ago.

FIGURE 8. BREAKDOWN OF THE SOURCES OF REVISION OF THE GDP GROWTH RATE IN TERMS OF VOLUME WITH RESPECT TO THE MACROECONOMIC SCENARIO OF THE 2023 GSB



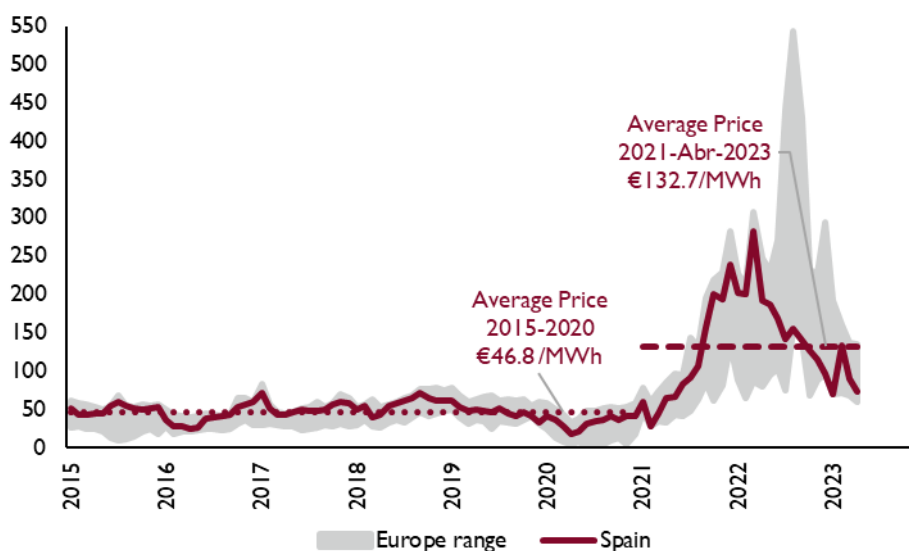
Source: INE and AIReF

The evolution of energy markets together with revisions in QNA data are key to explaining this favourable growth performance in 2022 and its carry-over to the 2023 forecast. Like the other European economies, Spain has been able to reduce its energy consumption and diversify its sources of supply. Furthermore, in the case of Spain, weather conditions have made it possible to reduce energy consumption during the winter and have favoured the production of energy from renewable sources. All this has made it possible for energy costs to fall below those of other European economies. This is despite the fact that the Iberian mechanism has hardly been activated over recent

³ AIReF's most recent real GDP growth forecast of 1.6% was included in the Report on the Initial Budgets at the start of April [AIReF | Report on the Initial Budgets of the GG 2023](#).

months as market prices for gas stand below the thresholds set. In addition, statistical changes in the QNA have contributed to a larger carry-over effect in 2023.

FIGURE 9. WHOLESALE ELECTRICITY PRICE RANGE IN EUROPE (€/MWH)



Source: Ember

Job creation, the dynamism of exports, the rollout of the Recovery, Transformation and Resilience Plan and the fiscal policy measures implemented also contribute to the dynamic activity in the early months of 2023. Other factors that contribute to explaining the strength of economic activity in the short term are the favourable performance of the labour market and exports - which are analysed below - together with the impact of the measures implemented to address the energy crisis and the RTRP.

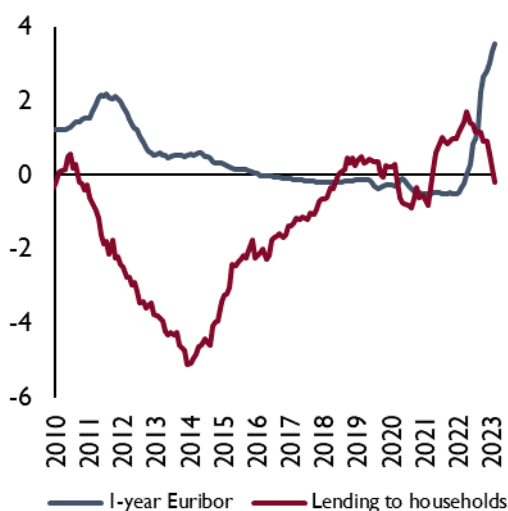
In contrast, the interest-rate hikes are being passed through to the economy's financing conditions faster and more intensely and their reflection on the real economy might be felt most strongly in the second half of 2023 and in 2024. In particular, financing conditions and lending criteria continued to tighten in the first quarter of 2023, for the fourth consecutive quarter. There was also a fall in the demand for financing by companies and, more sharply, by households for consumption and house purchases according to the results of the Bank Lending Survey (BLS). Although it is uncertain how this will be reflected in the real economy⁴, the evidence presented in the report (see **¡Error! No se encuentra el origen de la referencia.**) suggests that the greatest impact, close

⁴ [PRESS CONFERENCE \(europa.eu\)](#)

to 0.6 pp of lower growth in sales by large companies, will be most strongly in felt the second half of 2023 and especially in 2024.

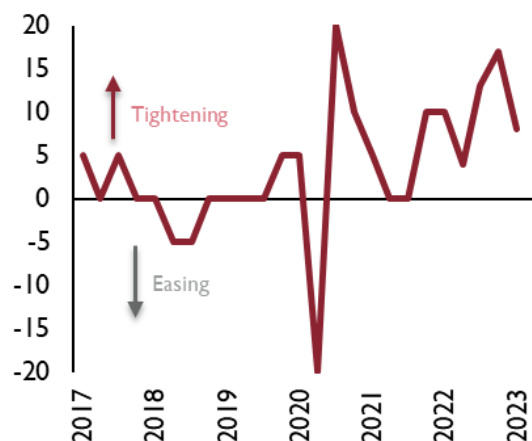
FIGURE 10. EVOLUTION OF FINANCIAL CONDITIONS IN SPAIN

FIGURE 10A. TOTAL LENDING TO HOUSEHOLDS AND EURIBOR (ANNUAL RATE, %)



Source: Bank of Spain

FIGURE 10B. TIGHTENING/EASING OF STANDARDS FOR LENDING TO NFCs IN THE LAST 3 MONTHS



Source: ECB

Note: Lending criteria are published as a diffusion index, i.e. the weighted difference between the proportion of institutions which declare that the lending criteria have been tightened and the proportion of institutions which declare that they have been eased. Positive values indicate tightening of financial conditions.

In this context, AIReF projects growth of 2% for 2024, which would moderate in the following years in line with expectations for other European economies. In the second half of 2023 and 2024, AIReF assumes that the tightening of financial conditions and the rollback of support measures will mitigate the boost to investment associated with the RTRP. Beyond 2024, economic growth will be more moderate - 1.7% on average - although somewhat higher than expected by the ECB for the euro area as a whole and the estimated potential growth, due to the impact of the RTRP.

Domestic demand will be the driver of the economy, with a contribution to growth of 1.7 points in the projection horizon. This contribution would be moderate in the second half of 2023 as the tightening of financial conditions is transmitted to the spending decisions of households and companies and will become stronger over the projection horizon. In contrast, external demand would have a positive contribution to growth in 2023, with exports outpacing imports, which would be constrained by weak domestic demand, and its contribution would be slightly negative in 2024 and practically zero in the rest of the forecast horizon.

The lower contribution of domestic demand in 2023 is partly a result of the evolution of private consumption, which remains weak despite the favourable performance of employment. Weakened confidence, which, despite having improved over recent months, remains at low levels, together with the tightening of financing conditions, contribute to explaining the moderate behaviour of private consumption. In addition, no significant boost from savings can be expected as the savings built up over the pandemic would have run out. On the one hand, the household savings rate fell in 2022 to 7.2% over the year as a whole, only slightly above the rates recorded in the expansion phase prior to the pandemic (6.7% on average in 2014-2019). On the other hand, the ECB's Consumer Expectations Survey (CES) suggests that, at the end of 2022, households that saved during the pandemic did not expect their consumption to be more buoyant in one year's time than those that had not saved⁵. In addition, the value of the accumulated savings in real terms has contracted notably due to the increase in prices and, at the end of 2022, the stock of financial assets in real terms was at levels slightly higher than those observed before the pandemic⁶. In these circumstances, AIReF projects growth in private consumption in line with growth in real disposable income, while the savings rate remains stable at around 7% of disposable income.

⁵ [Impact on recent and expect consumption patterns of the savings accumulated by households during the pandemic. Box 5. Economic Bulletin 4/2022 \(bde.es\)](#)

FIGURE 11. TOTAL FINANCIAL ASSETS AND GROSS DISPOSABLE INCOME DEFLATED BY PRIVATE CONSUMPTION DEFLATOR (BASE 2019=100)

FIGURE 11A. REAL FINANCIAL ASSETS OF HOUSEHOLDS AND NPISH

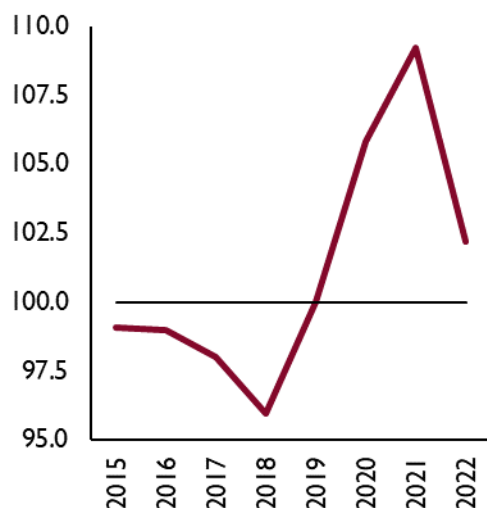
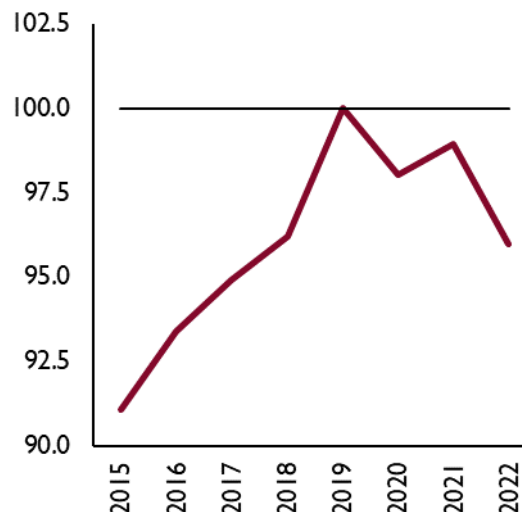
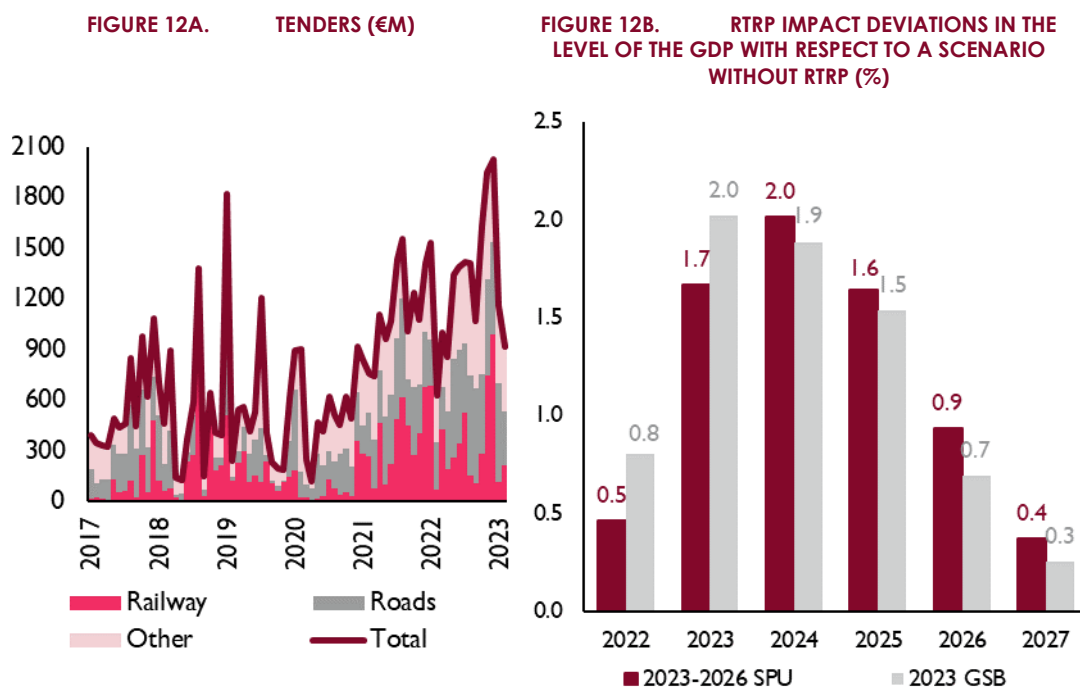


FIGURE 11B. REAL GROSS DISPOSABLE INCOME OF HOUSEHOLDS AND NPISH



Source: Eurostat and INE

Following moderate growth in 2023, stronger growth is projected for investment in 2024, which will tend to fade in the following years. In 2023, the high level of uncertainty and increases in production and financial costs will hamper investment growth. Although the impact of the RTRP on public works is clearly perceptible, the decrease in requests for financing from companies and from households for house purchases points to lower investments in the coming months. With regard to the RTRP, AIReF has revised its estimates of this plan's contribution to growth in 2022 downward to 0.5 pp, due to the estimated new delays in the resources reaching the real economy. However, the multiplier associated with these investments remains high at 0.9. Therefore, the RTRP is a key element sustaining the level of economic activity over the forecast horizon (see figure 12b). Given the importance of this instrument, AIReF considers that there should be more transparency from the General Government on the implementation, monitoring and evaluation of the investments and reforms associated with the RTRP.

FIGURE 12. TENDERS FOR PUBLIC WORKS AND RTRP IMPACT


Source: Ministry of Economic Affairs and Digital Transformation

Source: AIReF

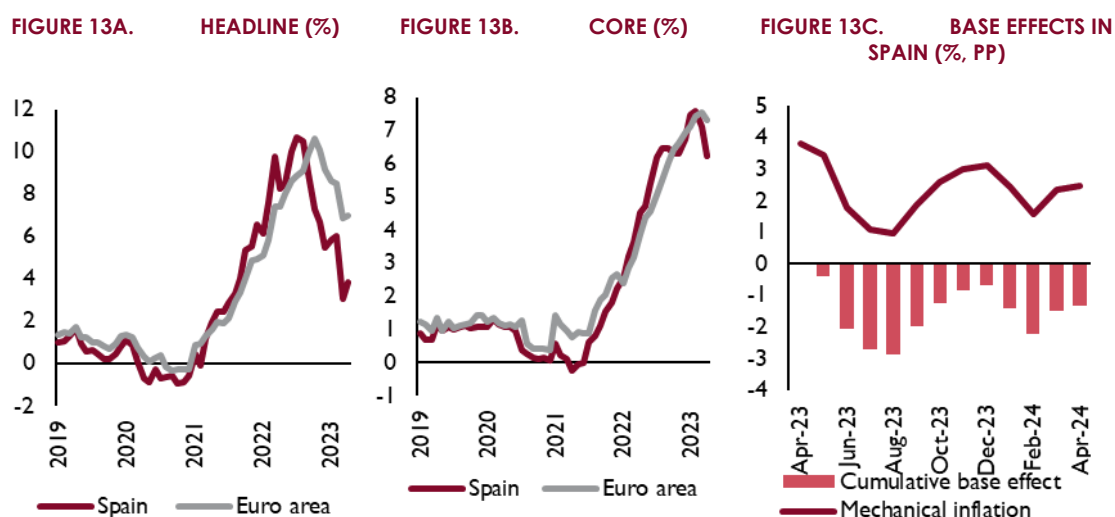
The contribution of external demand remains positive in 2023 and neutral in the following years. The dynamic exports of goods, the gradual normalisation of international tourism and dynamic business services contribute to sustaining the growth in foreign sales in 2023. However, growth subsequently moderates to fall in line with the expansion of export markets. Box 3 presents an analysis of the factors underlying the recent dynamism of foreign sales. The growth in imports slows down in 2023 and they evolve over the projection horizon in line with domestic demand.

Employment maintains more moderate growth rates than in 2022 over the forecast horizon, while the unemployment rate falls to 11%. The performance of employment is favourable in the context of expanding economic activity and falling real wages. In fact, there are no structural changes in the long-term relationship between employment and GDP growth - called Okun's law - both when hours and the number of Social Security contributors are used. Consequently, over the forecast horizon, employment evolves in line with GDP growth and there is a moderate increase in apparent labour productivity. Box 1 provides a detailed analysis of the features of the job creation process seen in recent quarters.

As regards prices, AIReF has revised expected inflation in 2023 upwards and projects a gradual deceleration in the following years. The headline inflation rate has fallen significantly up to April as a result of base effects associated

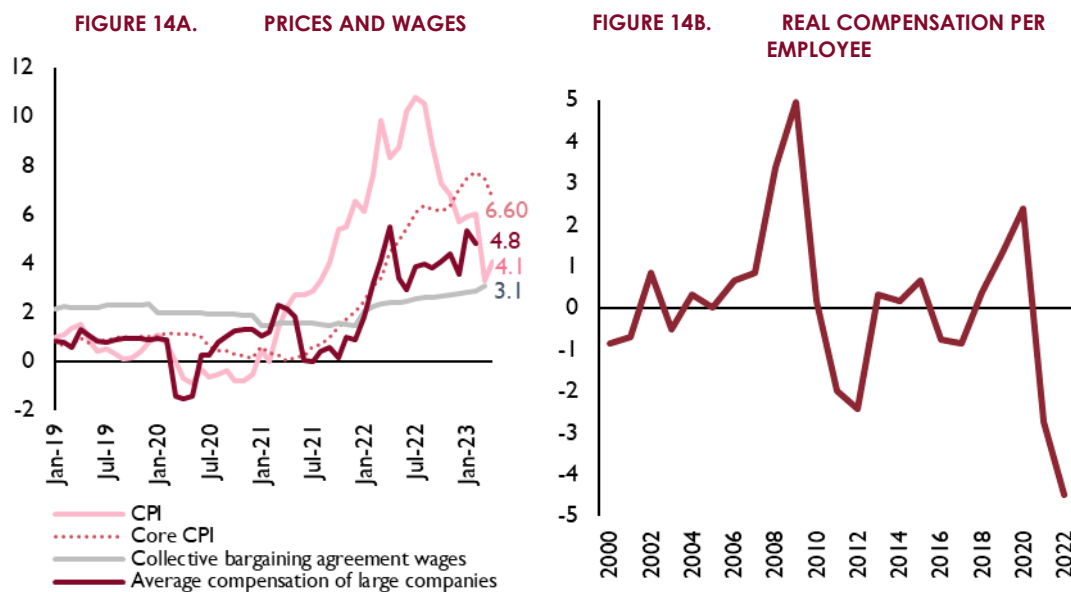
with the comparison with the high price levels of energy products in the early months of 2022 and the moderation of energy prices. However, core inflation remains high, particularly in tourist services and restaurants. Food products also remain under upward pressure, despite the recent moderation of agricultural commodity prices on international markets, due to the effects of the drought. Thus, despite the moderation of the energy component, the CPI is expected to grow by 4% in 2023, approximately half of the figure for 2022 and below what was expected by the ECB for the euro area as a whole (5.3% according to March forecasts). However, core inflation is expected to be significant (5.5%). In 2024, the disappearance of the measures implemented to address the energy crisis would contribute positively to the growth of the CPI, which is projected at 2.8%. In the following years, inflation would moderate to close to 2%, which is the benchmark for the Eurosystem's monetary policy.

FIGURE 13. HARMONISED HEADLINE INFLATION, EXCLUDING ENERGY AND UNPROCESSED FOOD (CORE) AND BASE EFFECTS



Source: INE, Eurostat and AIReF

As for the evolution of wages, the high inflation rates recorded in 2022 did not translate into wage demands. This resulted in the largest contraction in compensation per employee in real terms since national accounting data have been available. The agreed wage increase for all collective bargaining agreements in 2022 was 2.8% (December 2022 data) and that of the agreements signed during the year was only slightly higher, at 3.2%. This resulted in a significant fall in the labour share of income generation and a fall in real wages that eroded households' purchasing power.

FIGURE 14. RECENT EVOLUTION OF PRICES AND WAGES REAL COMPENSATION PER EMPLOYEE (YEAR-ON-YEAR RATE OF CHANGE, %)


Source: INE, Ministry of Economic Affairs and Digital Transformation, AEAT and Haver Analytics

Wages are forecast to accelerate in 2023 to regain some of the purchasing power lost in the previous year, with rates of increase thereafter consistent with inflation and productivity. The evolution of collective bargaining wages in the early months of 2023 points to an acceleration of wage demands. Thus, the total agreed wage growth was 3.14% up to April and 4.71% in newly-signed agreements. However, only 216 agreements were signed between January and April, covering 760,534 workers, which represents slightly over 10% of the workers covered by collective bargaining agreements. It should be noted that the wage increase agreed in the agreements signed in the early months of the year, despite historically representing a small percentage of the total number of workers who will finally be covered by bargaining agreements over the year, has been highly correlated with the agreed wage increase recorded for the year as a whole since 2015 (the earliest available data). In this context, AIReF's forecasts assume that a part of the purchasing power lost in 2022 would be recovered in 2023 and 2024, with an increase in compensation per employee of 4.4% and 4.7%, respectively, which exceeds inflation. In the following years, wage growth remains in line with expected inflation and productivity growth (with increases of 3.3% and 2.2% in 2025 and 2026, respectively). The Agreement for Employment and Collective Bargaining would support this trajectory: this agreement is a recommendation for companies and trade unions to negotiate their agreements. A three-year path for wage increases has been agreed, which is spread into 4% in 2023, and 3% in 2024 and 2025 – with an annual review clause that could result in an additional rise of up to 1% if inflation is higher. Labour shortages in some sectors also help to explain the stronger wage dynamics in 2023 and 2024.

FIGURE 15. AGREED WAGE INCREASES AND COVERAGE OF AGREEMENTS SIGNED IN THE EARLY MONTHS OF THE YEAR

FIGURE 15A. RELATIONSHIP BETWEEN THE WAGE INCREASE AGREED IN AGREEMENTS UNTIL APRIL AND THAT OF THE YEAR AS A WHOLE

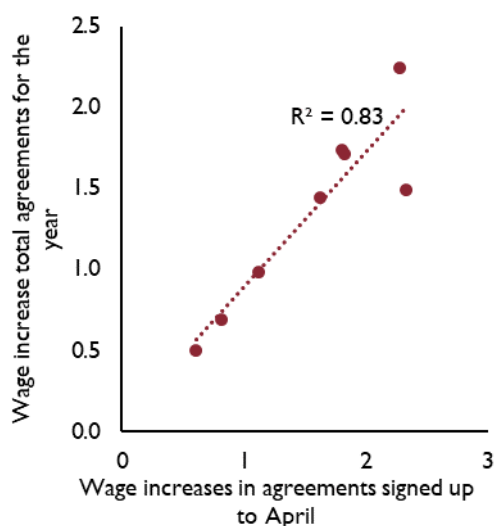
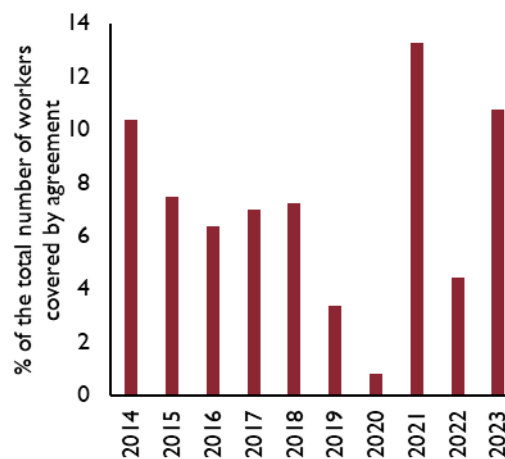


FIGURE 15B. WORKERS COVERED IN APRIL BY AGREEMENTS SIGNED IN THE YEAR (%)



Source: Ministry of Labour and Social Economy

2.2. The macroeconomic scenario of the 2023-2026 Stability Programme

2.2.1. Assessment of the technical assumptions

The technical assumptions underpinning the medium-term scenario include the most recent forecasts on global growth and trade made by the European Commission and the European Central Bank and expectations about financing conditions and commodity prices in international markets. The assumptions underlying the Government's scenario hardly differ from those used by AIReF in its own projections. These external assumptions are marked by the fall in the prices of energy and, in particular, gas (which would drop from the 100 euros/MWh observed in 2022 to 59 euros/MWh in 2023, in the Government scenario, stabilising at 50 euros/MWh in the rest of the projection horizon) and the tightening of financial conditions, with an increase in both short-term and long-term interest rates. Assumptions of GDP growth in the euro area translate into a marked slowdown in Spain's export markets in 2023. Overall, AIReF considers that these assumptions reflect the most recent projections and the latest developments in the financial, foreign exchange and commodities markets.

2.2.2. Comparison of the Government's macroeconomic scenario with AIReF's scenario

The Government's macroeconomic scenario and AIReF's scenario have similarities, especially in real terms. The Government presents a scenario in which the Spanish economy maintains relatively robust growth between 2023 and 2024, which moderates slightly in the final two years of the forecast horizon. In 2023, growth would mainly be supported by private consumption, underpinned by the strong performance of employment. This year would also see a positive contribution from the external sector and public consumption, while investment would record very moderate growth. In contrast, the expected strong contribution of domestic demand in 2024 would more than offset the negative contribution of the external sector. Overall, this growth is in line with the most recent estimates of AIReF, although it would be in the optimistic area of the most recent forecasts made by other public and private institutions for 2023.

In the last two years of the forecast horizon (2025-2026), the Government forecasts a slight slowdown in GDP growth. For the last two years of the forecast, the Government expects growth to still be slightly higher than potential growth, underpinned by domestic demand, with very moderate contributions from the external sector. This scenario of convergence at real growth rates close to the potential growth of the economy is also considered feasible, as it is in the central range of AIReF's probability bands (see figure 16).

FIGURE 16. GROSS DOMESTIC PRODUCT. VOLUME (ANNUAL RATE OF CHANGE)

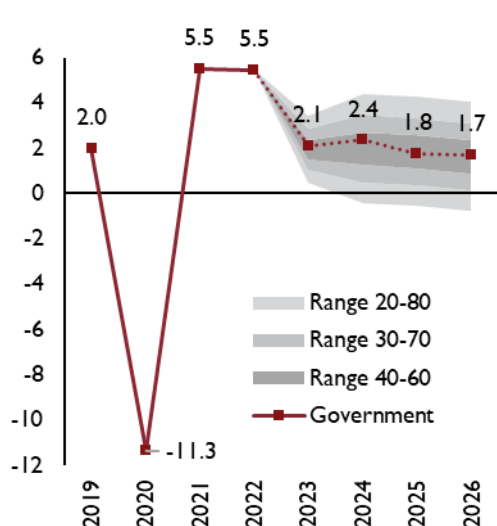
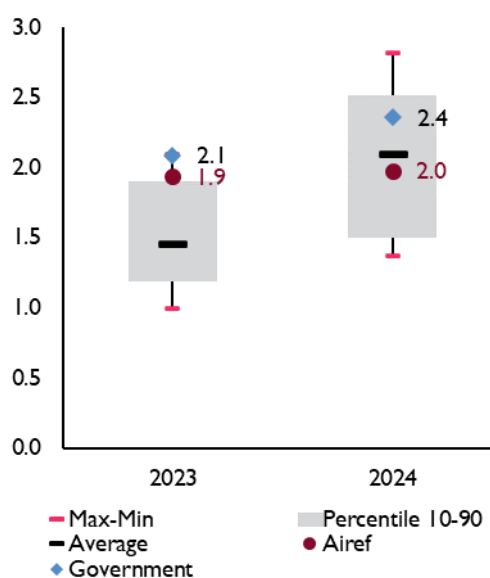


FIGURE 17. COMPARISON OF GDP FORECASTS IN 2023. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF, FUNCAS, Consensus Forecasts, Ministry of Economic Affairs and Digital Transformation

The biggest discrepancies between the Government's and AIReF's forecasts are to be found in short-term price trends. The Government's forecasts suggest a slowdown in the growth of the GDP deflator in 2023, to 4%, below the central confidence interval of AIReF's scenario. In contrast, the forecast for 2024, at 3.5%, would be slightly above AIReF's central probability range. In the last years covered in the report, the Government's GDP deflator growth forecasts moderate and fall within the central probability range estimated by AIReF on the basis of its own scenario.

The Government's forecasts of nominal GDP growth for 2023 are below those expected by AIReF as a result of lower expected GDP deflator growth, while those for 2024 would remain at the upper limit of the central range. The Government's scenario presents nominal GDP growth in 2023 that would be slightly below the lower limit of the central probability range due to the Government's lower forecast for deflator growth. In 2024, the nominal growth forecast by the Government would be at the optimistic limit of AIReF's central range while the forecasts for 2025 and 2026 would be completely centred on the probability bands estimated by AIReF.

FIGURE 18. IMPLICIT GDP DEFLATOR (ANNUAL RATE OF CHANGE)

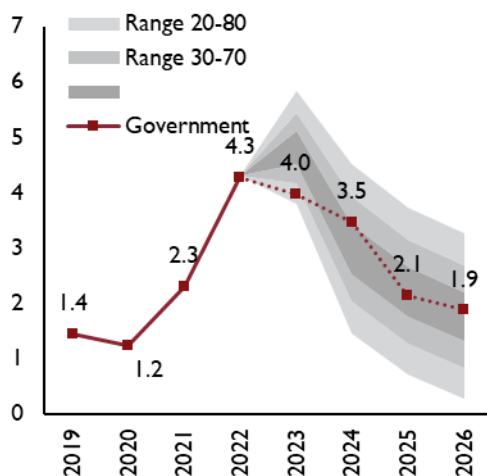
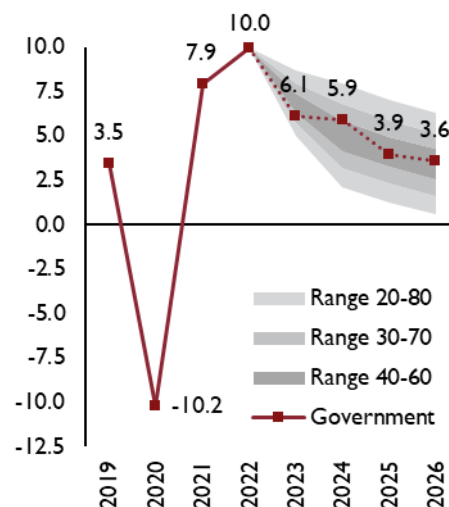


FIGURE 19. NOMINAL GDP (ANNUAL RATE OF CHANGE)



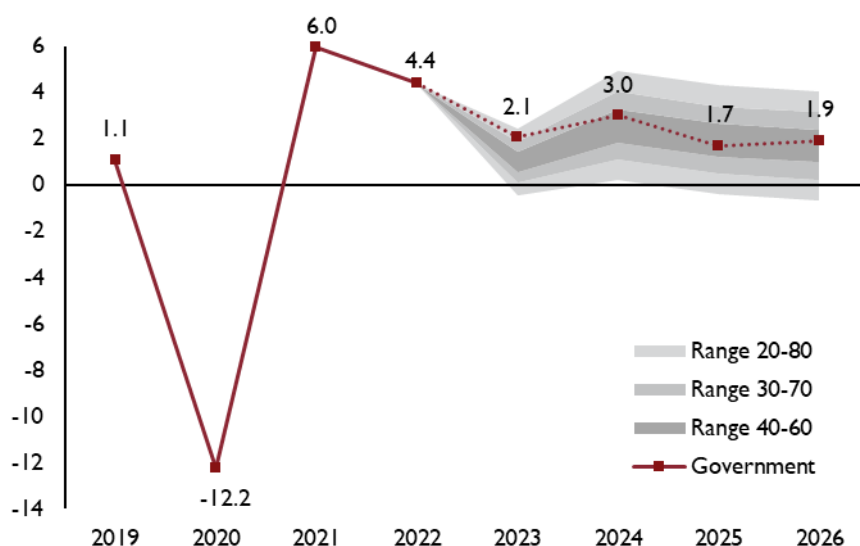
Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

With regard to the composition of growth, the macroeconomic scenario of the SPU presents certain discrepancies with AIReF's scenario. The discrepancies in the composition of the growth estimated by the Government and AIReF are particularly significant in 2023 and 2024. Specifically, in 2023, AIReF's scenario incorporates higher growth in gross fixed capital formation and exports, while the growth expected by the Government is supported to a much greater extent by private consumption in both years. These discrepancies are mitigated at the end of the forecast horizon, although in the final years the

Government expects lower investment growth to be offset by lower expected growth in imports.

Private consumption in the SPU macroeconomic scenario shows a robust growth pattern, considerably higher than that expected by AIReF, especially in the short term, but with more similar rates in 2025 and 2026. In the SPU report, the Government argues that the excess savings accumulated during the years of the pandemic, together with the expected performance of employment, will allow strong growth in private consumption in 2023 despite worsening credit conditions and the loss of purchasing power suffered by households over recent years. In 2024, the forecast growth rates for private consumption would be closer. However, those of the Government would remain in the optimistic part of AIReF's probability bands, while the rates of change forecast by the Government for private consumption in 2025 and 2026 would be in the central range.

FIGURE 20. PRIVATE CONSUMPTION. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

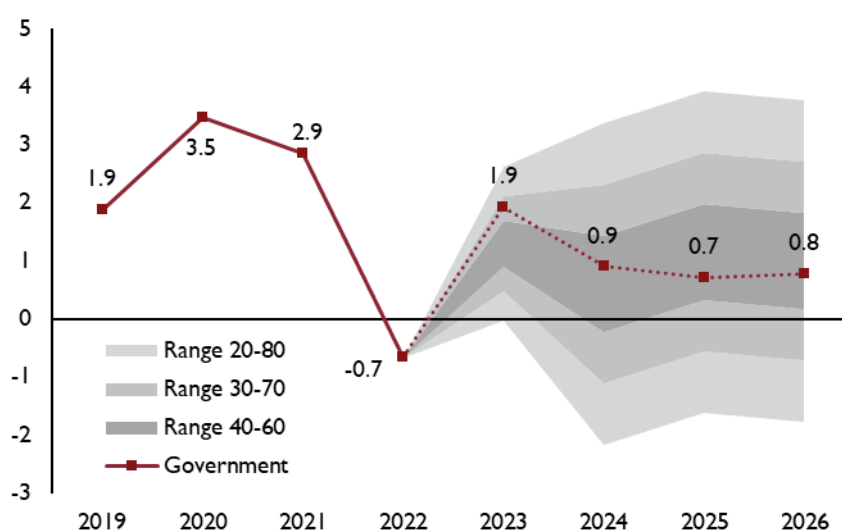
AIReF forecasts that private consumption will grow at a slower pace, weighed down by the rise in interest rates, the deterioration of households' disposable income in real terms and the depletion of excess savings. As discussed in the previous section and in BOX 2, the macroeconomic effects of the simultaneous interest rate hikes by the various central banks and the end of the unconventional monetary policy programmes from mid-2022 could be felt most strongly as from the second quarter of the year and in 2024. In addition, although in 2022 the financial assets accumulated during the pandemic made it possible to cushion the shock of price rises on real gross disposable income, AIReF does not expect this effect to occur again in 2023, since

households' real financial assets at the end of 2022 were already at the levels of the end of 2019.

Real public consumption in the Government's scenario shows higher growth than in AIReF's forecasts in 2023 and similar growth in the other years.

In particular, in 2023, the growth forecast of this aggregate stands in the 30-70 confidence interval. In the other years, the growth in private consumption expected by AIReF is similar to that estimated by the Government. In this regard, in nominal terms, the Government's path of public consumption shows, for 2023, much higher growth than that of the main components of public consumption in its fiscal roadmap (compensation of employees, intermediate consumption and social transfers in kind). This fact is not derived from a forecast of the evolution of the public consumption deflator, which is very similar to AIReF's forecast – 4.1% for the Government compared with 4% for AIReF. In contrast, the nominal path of public consumption for 2024 to 2026 is lower than that of the main components of its fiscal roadmap.

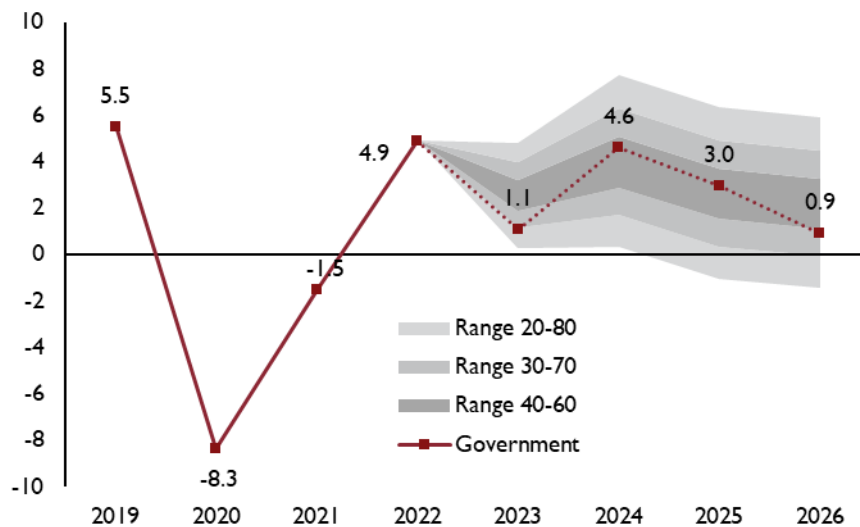
FIGURE 21. FINAL CONSUMPTION EXPENDITURE OF THE GG VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

The Government expects that investment in construction and intellectual property will undergo moderate growth in 2023, followed by significant growth in 2024 and 2025 and a slowdown in 2026. Compared with AIReF, the Government's forecast for this aggregate is pessimistic in 2023 and feasible in the remaining forecast years.

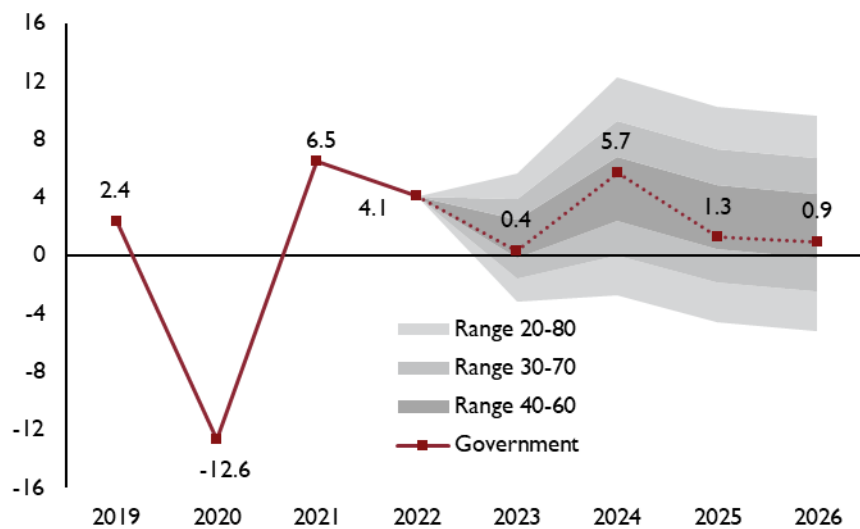
FIGURE 22. GFCF IN CONSTRUCTION AND INTELLECTUAL PROPERTY. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

The investment in capital goods and cultivated assets forecast in the SPU lies within AIReF's central ranges throughout the forecast period. The Government's forecast for the evolution of this aggregate is slightly pessimistic in 2023, according to AIReF's estimates, and slightly optimistic in 2024. At any event, the growth forecasts of this aggregate would be considered feasible in all years.

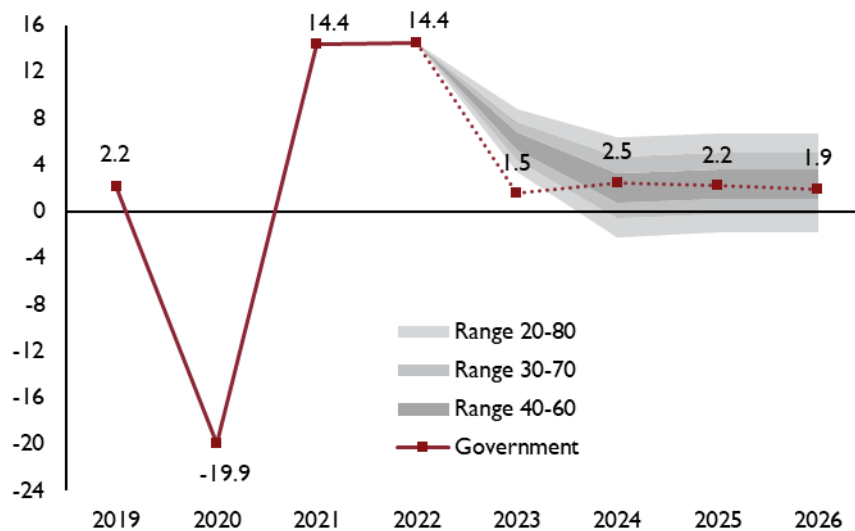
FIGURE 23. GFCF IN CAPITAL GOODS AND CULTIVATED ASSETS. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

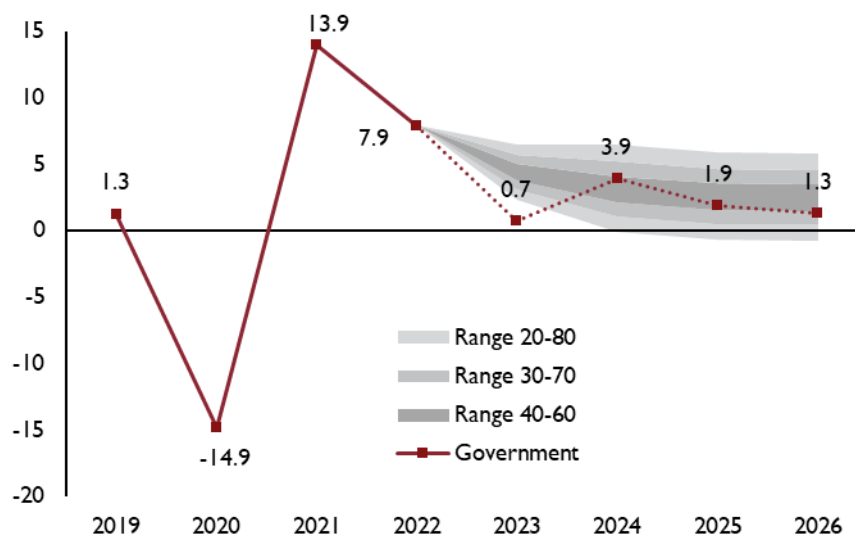
With regard to the external sector, the SPU scenario forecasts a positive contribution in 2023 that is considerably lower than that forecast by AIReF, which turns negative in 2024, stands at practically zero in 2025 and has a slightly positive contribution in 2026. AIReF forecasts a higher contribution from the external sector in 2023, followed by a slightly less negative contribution than the Government's in 2024, which is cancelled out in the following years. Despite the similarity in the estimated contributions of the external sector in both scenarios, particularly from 2023 onwards, there are significant discrepancies in the export and import aggregates. Both exports and imports of goods and services forecast by the Government in 2023 would stand outside the probability ranges calculated by AIReF. In subsequent years, both figures would be in the central forecast range estimated by AIReF.

FIGURE 24. EXPORTS OF GOODS AND SERVICES. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

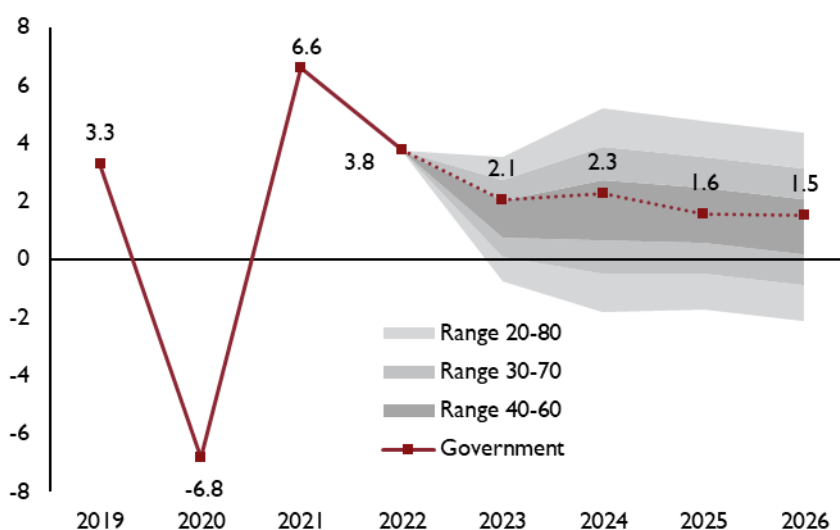
FIGURE 25. IMPORTS OF GOODS AND SERVICES. VOLUME (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

The evolution forecast in the SPU for full-time equivalent employment is similar to that forecast by AIReF, albeit somewhat more optimistic. The favourable evolution of the labour market has continued throughout 2022 and AIReF expects it to continue in 2023, albeit with a lower intensity, and stabilise with growth rates somewhat lower than GDP thereafter. In the case of the SPU, employment growth is slightly higher than AIReF's central forecast, which translates into lower forecasts of productivity growth per employee by the Government.

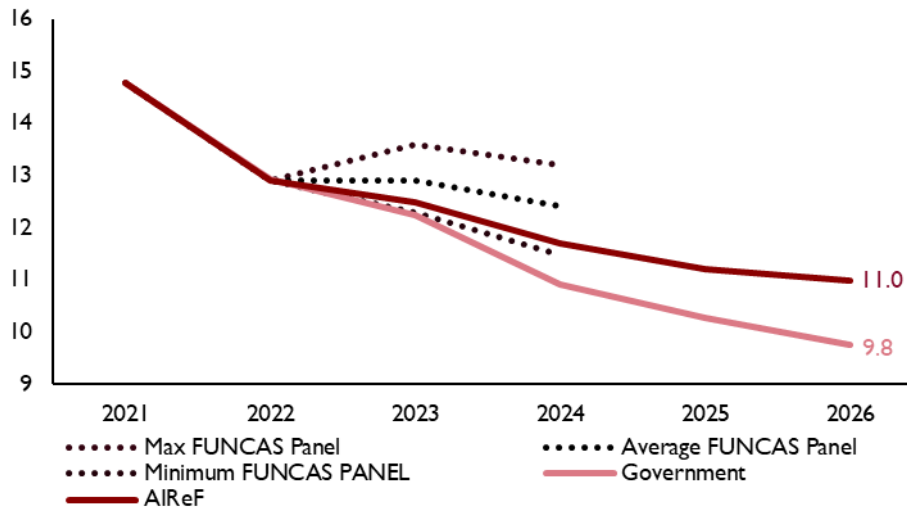
FIGURE 26. FULL-TIME EQUIVALENT EMPLOYMENT (ANNUAL RATE OF CHANGE)



Source: INE, AIReF and Ministry of Economic Affairs and Digital Transformation

Despite the similarity in the forecasts of full-time equivalent employment, the unemployment rate of the Government's macroeconomic scenario is lower throughout the forecast horizon than that of AIReF, reaching 9.8% in 2026 — 11% in AIReF's forecast. The Government's forecast for the unemployment rate would be optimistic in relation to that expected both by AIReF and by the analysts of the Funcas Panel.

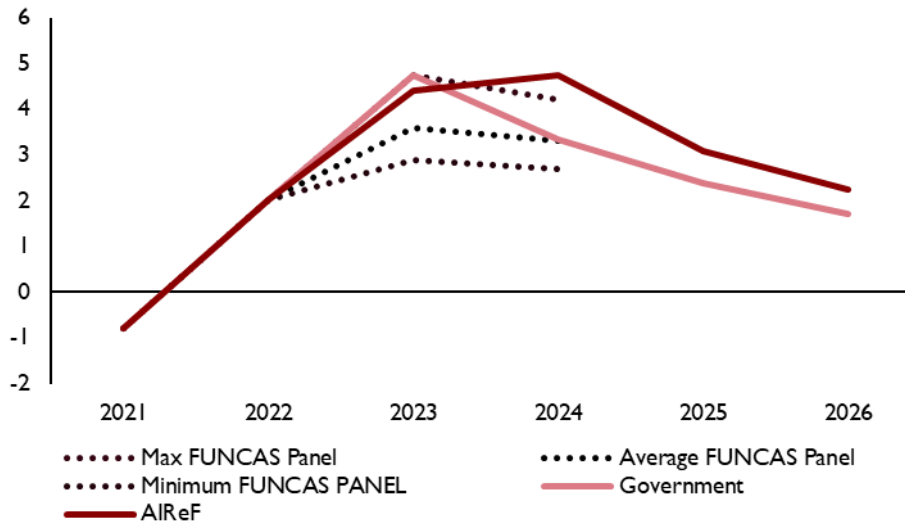
FIGURE 27. UNEMPLOYMENT RATE (% OF ACTIVE POPULATION)



Source: INE, Ministry of Economic Affairs and Digital Transformation and AIReF

The Government's and AIReF's forecasts of compensation per employee are around the maximum values forecast by the panellists for 2023. The Government forecasts that compensation per full-time employee will grow by 4.7% in 2023, similar to the figure estimated by AIReF. Over the remaining years of the forecast horizon, the Government expects a marked slowdown in compensation per employee, especially considering the expected evolution of the private consumption deflator.

FIGURE 28. FORECASTS OF COMPENSATION PER EMPLOYEE (ANNUAL RATE OF CHANGE)



Source: INE, Ministry of Economic Affairs and Digital Transformation, FUNCAS and AIReF

2.3. Balance of risks

The balance of risks around the SPU's growth scenario, and AIReF's own, is more balanced than in previous years. In the short term, the positive surprises associated with the disappearance of supply shocks could last longer than anticipated in the macroeconomic scenario of the SPU and AIReF.

However, downside risks predominate in the medium term. The geopolitical tensions associated with the war in Ukraine mean that uncertainty remains high and commodity markets are far from normalising. The reduction in energy demand by European economies and the ability to reconfigure their sources of supply has made it possible to avoid more disruptive scenarios of supply cuts or rationing that could have led to a significant contraction in activity in Spain and Europe. However, energy costs remain higher than those recorded before the pandemic both in Spain and in the other European economies. This could lead to a loss of competitiveness that may result in a loss of productive capacity if it persists⁷.

The biggest source of risk is the financial sector. The change in the monetary cycle has brought tensions in some financial institutions and increased volatility in financial markets, which has caused all institutions to remain vigilant. Central banks now have a broader set of tools at their disposal to address any episode

⁷ [Chapter 4. Spain and the European Union in the face of the energy crisis: near-term adjustments and challenges pending. Annual Report 2022 \(bde.es\).](#)

of instability. In addition, the Spanish economy has fewer imbalances both in real estate markets and in the external sector, where the current account surplus reduces vulnerability to possible balance of payments crises, and the banking system has a sounder liquidity position and capital ratios. However, high levels of public debt are an element of vulnerability.

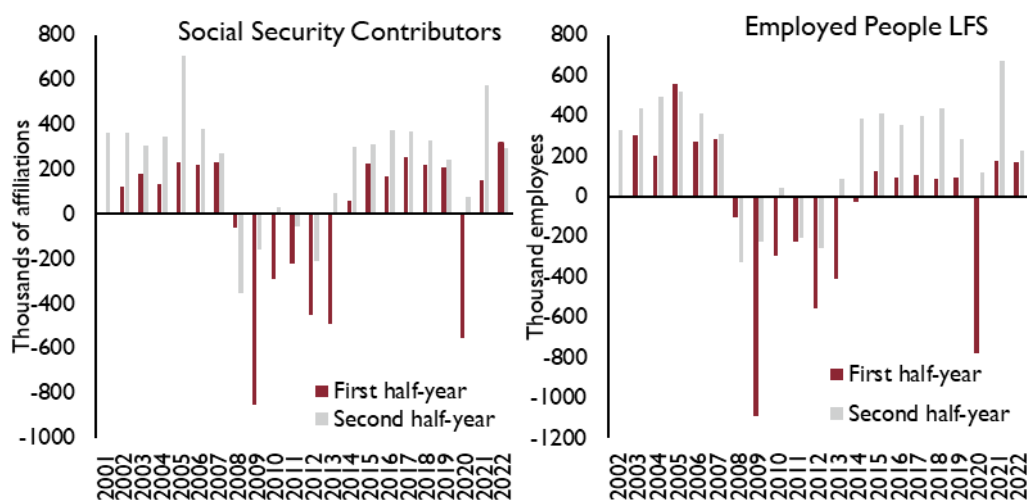
More in the medium and long term, the fragmentation of the global economy into blocs poses downside risks to growth, through trade and foreign direct investment. The IMF points to a notable moderation in the outlook for global growth in the medium term: forecasts for a five-year horizon have fallen from 4.6% in 2011 to 3% in 2023. This is due both to lower growth in economies such as China, as they progress in their process of real convergence towards more advanced economies, and to the possible effects of the pandemic and the energy crisis, as well as to trade tensions and the dynamics of fragmentation⁸. These dynamics can be especially important for economies as open as Spain's.

⁸ [World Economic Outlook, April 2023: A Rocky Recovery \(imf.org\)](https://www.imf.org/en/Publications/WEO/Issues/2023/04/04/w2301).

BOX 1. RECENT EVOLUTION OF EMPLOYMENT

There was strong job creation over 2022, although it was affected by the energy crisis in the second half of the year. Over the past year, the labour market has been characterised by strong job creation, which became evident after the most acute stages of the pandemic and as economic activity returned to normal in the first half of 2022. In the second half of 2022, the impact of the energy crisis was also transferred to the labour market, with a relative stagnation in the rate of job creation and a slight rise in the unemployment rate. As shown in the figure below, the increase in Social Security contributors from January to June 2022 represented the largest job creation in the first half of a year since records began. However, it was more moderate in the second half of the year, lower than the average during the expansionary stage between 2015 and 2019.

FIGURE B1_1. HALF-YEARLY EVOLUTION OF EMPLOYMENT

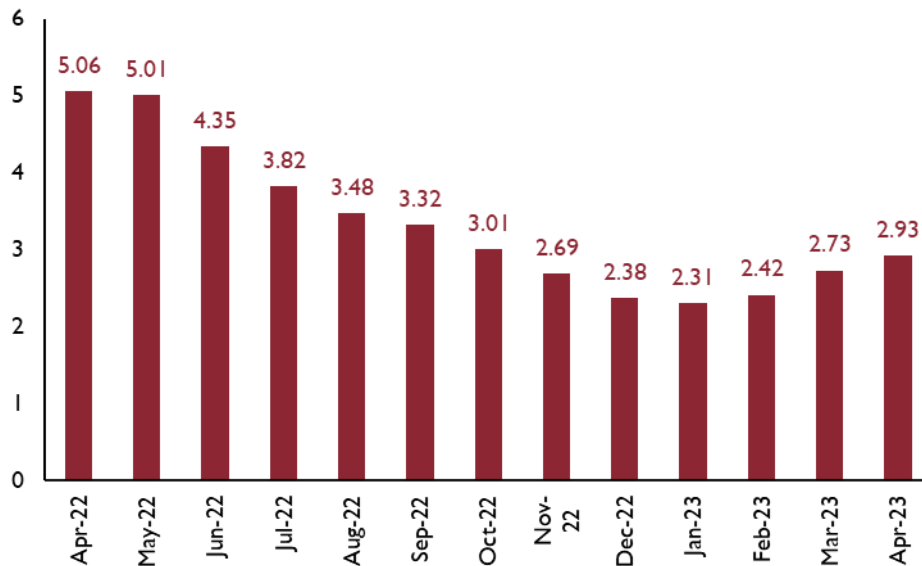


Source: National Statistics Institute and Ministry of Inclusion, Social Security and Migration

This dynamism has been accentuated in the first quarter of 2023, in a context of stronger economic activity and the extremely positive performance of employment in April. In the first quarter of 2023, the labour market regained its dynamism and Social Security affiliation rose by 2.5% year-on-year. This trend was maintained in the month of April, which recorded the highest growth in the number of Social Security contributors in an April on record, with an acceleration of the growth rate to 2.93%. For its part, LFS employment also regained strength in the first quarter with a very moderate quarter-on-quarter fall - in the first quarter seasonality is unfavourable and causes quarter-on-quarter falls in employment - and an acceleration in the year-on-year growth rate to 1.8%, compared with 1.3% in the last quarter of 2022. For

its part, the unemployment rate rose to 13.3%, compared with 12.9% at the end of 2022. However, the increase in the number of unemployed was mainly due to the increase in the active population, particular foreign nationals or dual nationals.

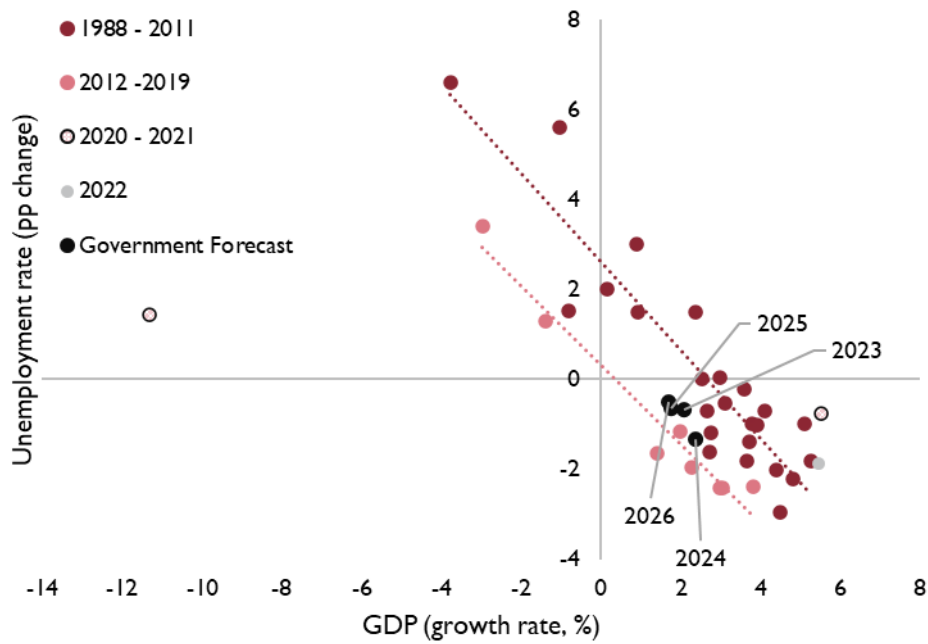
FIGURE B1_2. YEAR-ON-YEAR GROWTH IN AFFILIATION (%)



Source: Ministry of Inclusion, Social Security and Migration

The performance of the labour market in 2022 was consistent with the observed GDP growth. Job creation and GDP growth in 2022 remained consistent with the historical relationship observed between these two variables contained in Okun's Law - although between 2012 and 2019 there was more intensive growth in employment. The forecasts of economic growth and evolution of employment included in the 2023-2026 Stability Programme Update are also consistent with the relationship estimated through Okun's Law, although they lie in an intermediate range between the relationship estimated until 2011 and the one estimated from 2012 to 2019.

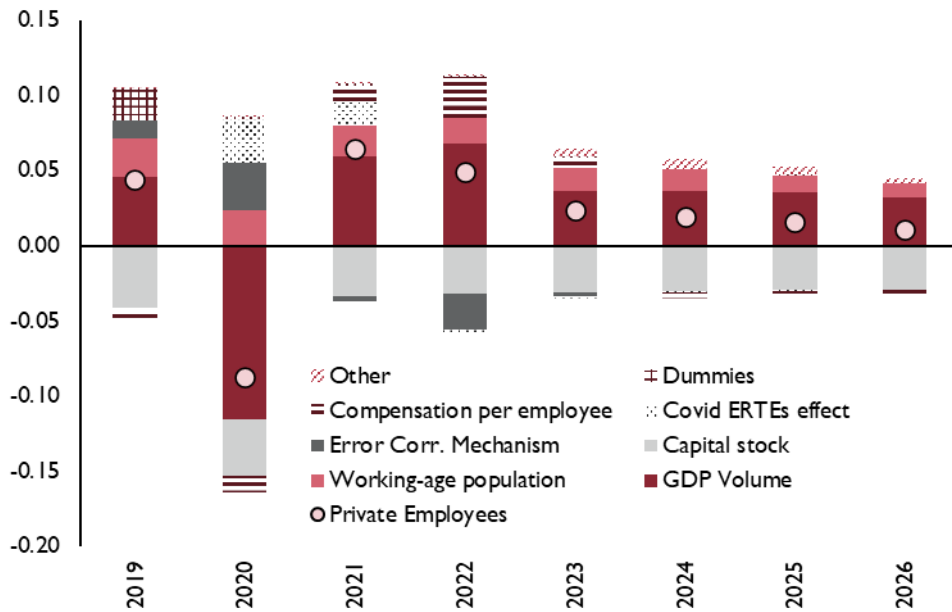
FIGURE B1_3. OKUN'S LAW 1988 - 2026



Source: AMECO and Haver Analytics

In the same vein, according to the breakdown of the evolution of private employment resulting from AIRcF's quarterly forecasting model, the main determinant of job creation in 2022 was GDP growth, although the fall in real wages also boosted employment. In the 2023 and 2026 horizon, AIRcF's projections also identify GDP growth as the main factor that will determine the evolution of employment.

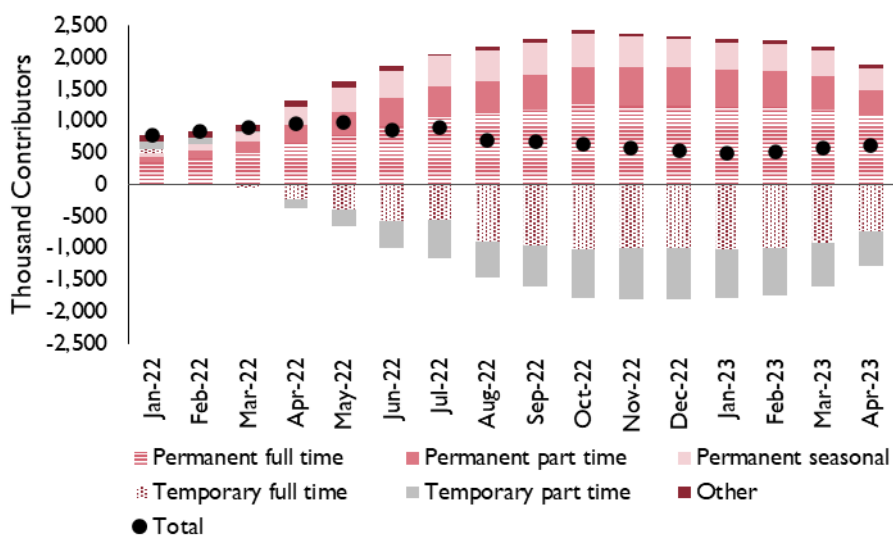
FIGURE B1_4. CONTRIBUTIONS TO THE GROWTH OF PRIVATE EMPLOYMENT



Source: AIRcF

In qualitative terms, notable changes can be seen in the job creation process. It has also been concentrated in permanent contracts, to the detriment of temporary contracts. The decrease in the proportion of temporary contracts began in April 2022, after entry into force of the labour reform measures aimed at limiting temporary contracts, which then accelerated from 2022 up to October, and subsequently stabilised.

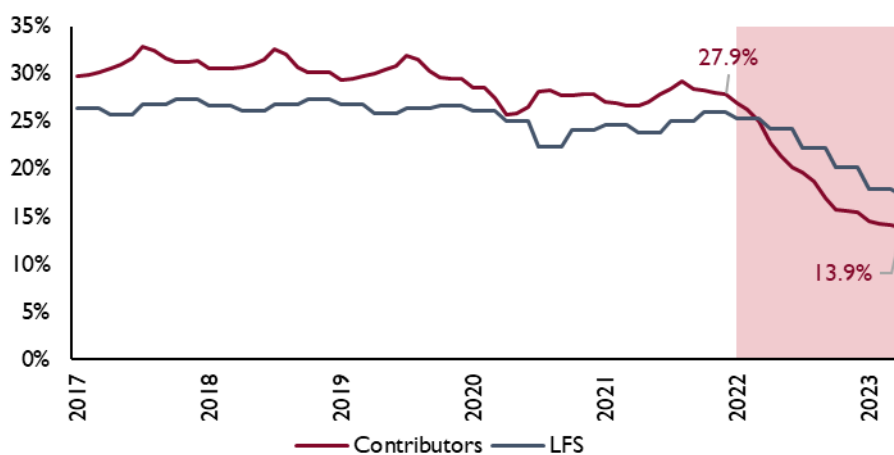
FIGURE B1_5. ANNUAL CHANGE IN GENERAL SCHEME AFFILIATION SINCE 2022 BY TYPE OF CONTRACT



Source: Social Security

Due to the growth in permanent contracts and the fall in temporary contracts, the temporary employment rate has fallen sharply since entry into force of the labour reform. In April 2023, the temporary employment rate continued to fall, to stand at 13.9%, well below the 27.9% of December 2021, prior to the labour reform. The temporary employment rate according to the LFS has fallen more slowly, and is now above that of Social Security affiliation rates. The growth in permanent employment, the reduction in temporary employment and the subsequent fall in the temporary employment rate since January 2022 indicate that the labour reform has been successful in its aim of promoting permanent employment.

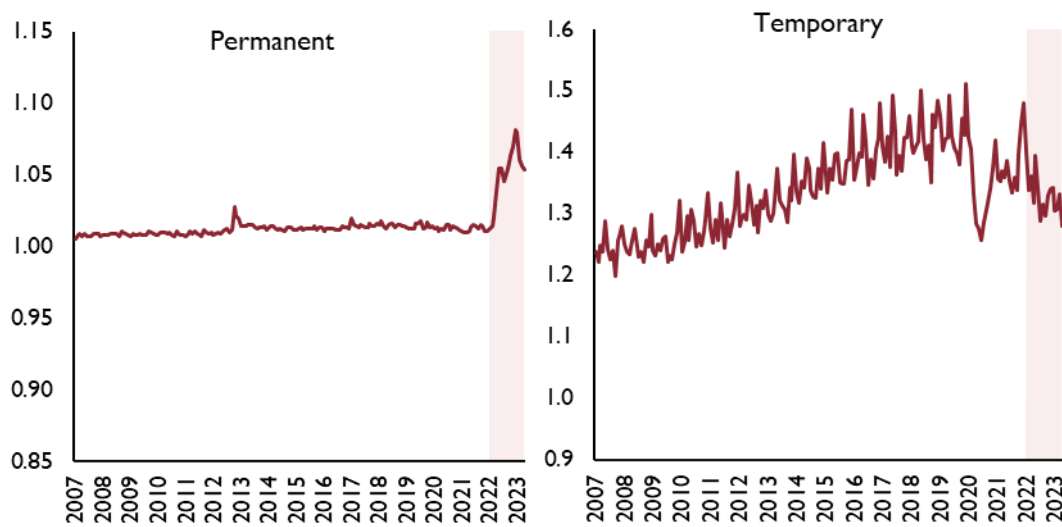
FIGURE B1_ 6. TEMPORARY EMPLOYMENT RATE ACCORDING TO SOCIAL SECURITY AFFILIATION AND THE LFS



Source: INE and Ministry of Inclusion, Social Security and Migration

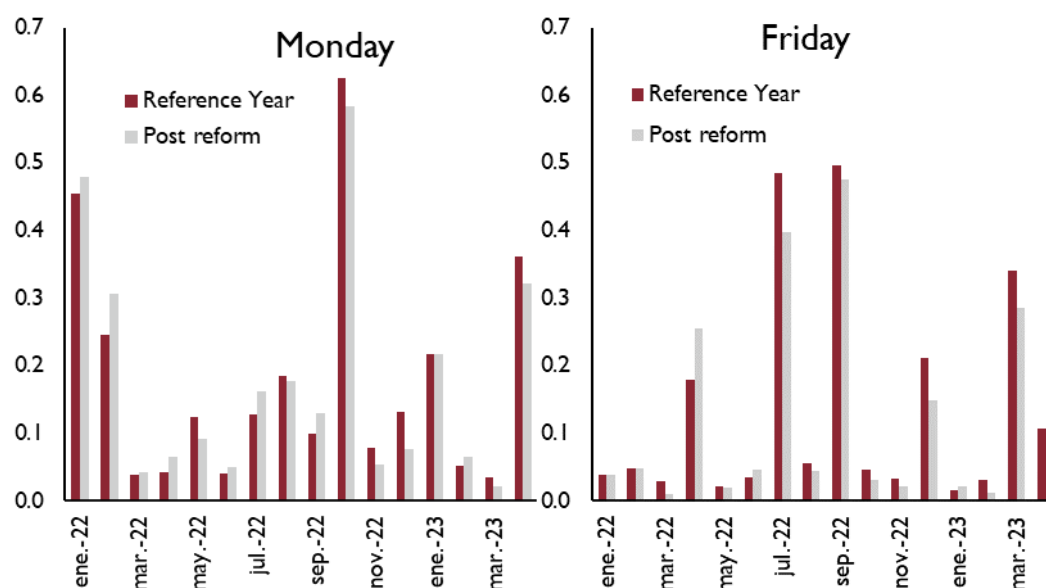
In addition, since January 2022, the flow of contracts signed monthly has fallen. In April 2023, the number of contracts signed was 37% lower than the 2019 average. At the same time, permanent contracts have gone on to account for 46% of all contracts signed in the month, compared with less than 10% before the 2021 reform.

However, since January 2022 there has also been a higher turnover in permanent contracts. Thus, the ratio between the number of permanent contracts and the number of people hired in the month has increased above 1, practically for the first time on record, to stabilise at 1.05. This would indicate that short-term permanent contracts may be gaining in importance. In contrast, turnover in temporary contracts has fallen, with a fall in the number of contracts per person.

FIGURE B1_7. NUMBER OF CONTRACTS PER PERSON


Source: State Public Employment Service (Spanish acronym: SEPE)

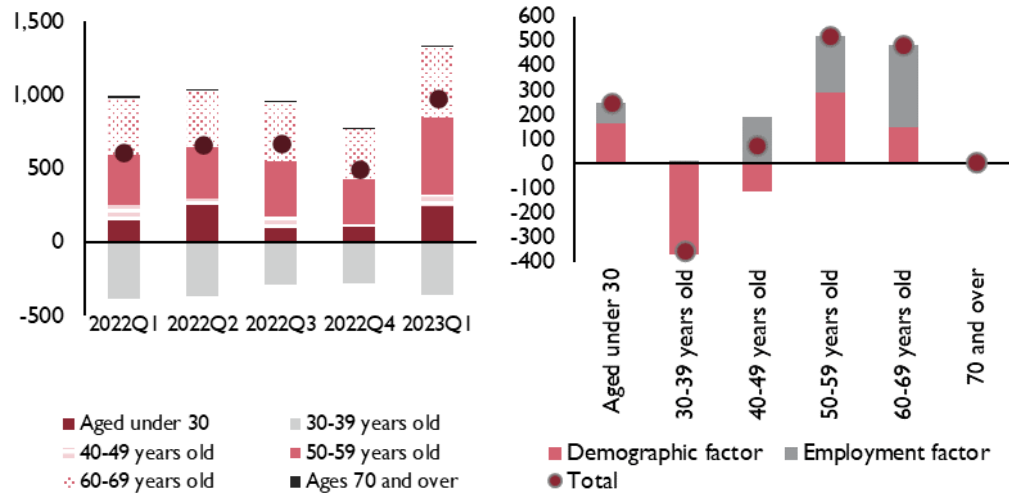
In the same vein, the evolution of daily affiliation does not show a substantial reduction in labour turnover. Daily affiliation has historically been characterised by having a very marked monthly and weekly cycle. Thus, on the first day of the month the number of contributors rises sharply (start-of-month effect) while it falls significantly on the last day (end-of-month effect). Along the same lines, on the first day of the week, affiliation increases sharply (Monday effect), while on the last day it contracts (Friday effect). Since the entry into force of the labour reform, the volatility of the rate of change of daily affiliation (measured by the standard deviation at the start and end of the week) has been similar to that of a reference year with the same monthly and weekly cycle (although with a different Easter effect).

FIGURE B1_8. STANDARD DEVIATION OF THE DAILY RATE OF CHANGE IN AFFILIATION


Source: Social Security

The growth in the number of employed people observed with respect to 2019 is concentrated in the older population groups, although in the last quarter there was also a significant increase in the number of people under 30 years of age. As shown in the figure below, the largest increases in the number of employed people are recorded in the 50-69 age brackets. When analysing which part of this change is due to changes in demographic dynamics (change in population in each age group) or changes in the employment and participation rates of each age group, it can be seen that the increase in employment in the older age groups is due both to an increase in the population in these age groups and to higher employment and participation rates. For its part, the loss of population between 30 and 39 years of age explains the reduction in employed people in this group, without any reduction in their employment rates.

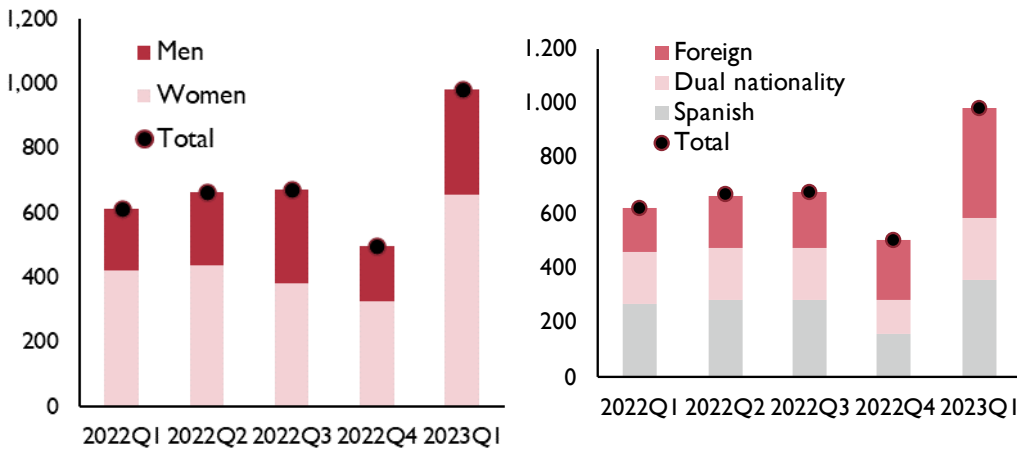
FIGURE B1_ 9. CHANGE IN THE NUMBER OF EMPLOY PEOPLE COMPARED WITH THE SAME QUARTER OF 2019 BY AGE GROUP AND FACTORS EXPLAINING THE CHANGE IN THE NUMBER OF PEOPLE EMPLOYED IN THE FIRST QUARTER OF 2023 COMPARED WITH THE FIRST QUARTER OF 2019 (THOUSAND PEOPLE)



Source: INE

Women account for two thirds of the increase in the number of employed persons. By nationality, there was noteworthy growth in foreign workers, who in the last quarter accounted for a little over 40% of the increase compared with 2019.

FIGURE B1_ 10. CHANGE IN THE NUMBER OF EMPLOYED PEOPLE COMPARED WITH THE SAME QUARTER OF 2019 BY SEX AND BY NATIONALITY (THOUSAND PEOPLE)

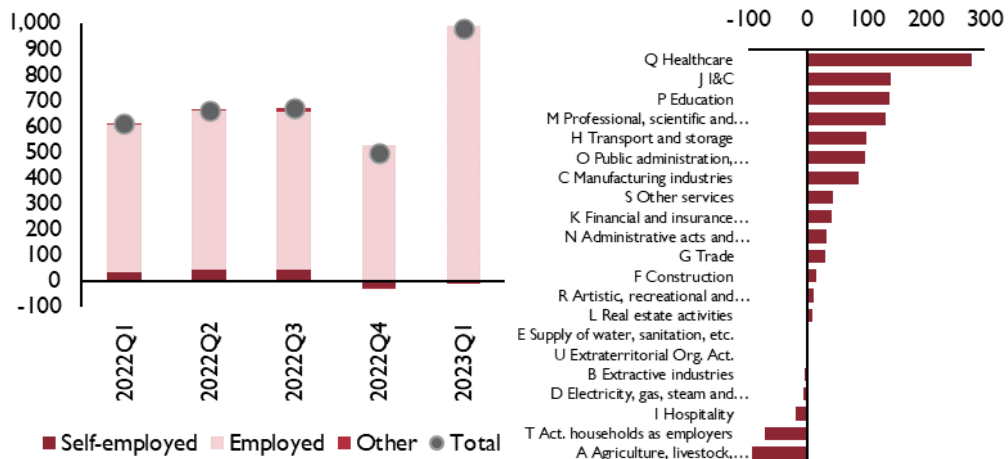


Source: INE

Employment growth is exclusively due to the increase in employed people, with a slight fall in the number of self-employed people in the last two quarters. By sector, the branches of activity that absorb a greater number of employees are Healthcare, Information and communications, Education and Professional, scientific and technical activities. In contrast, in Agriculture,

Households as employers of domestic staff and, to a lesser extent, Hospitality, employment levels are below pre-pandemic levels.

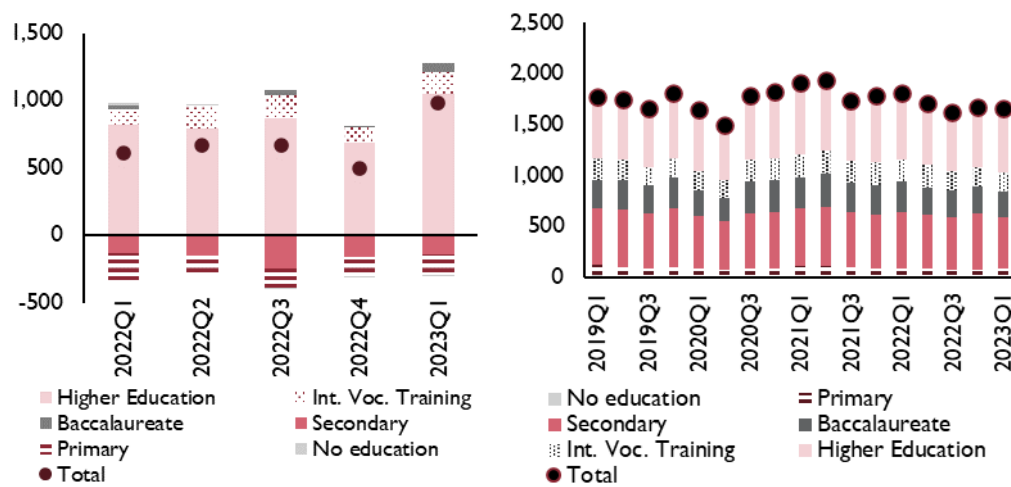
FIGURE B1_ 11. CHANGE IN THE NUMBER OF EMPLOYED PEOPLE COMPARED WITH THE SAME QUARTER OF 2019 BY TYPE OF EMPLOYMENT RELATIONSHIP AND CHANGE IN EMPLOYED PEOPLE IN THE FIRST QUARTER 2023 COMPARED WITH THE SAME QUARTER OF 2019 BY BRANCH OF ACTIVITY (THOUSAND PEOPLE)



Source: INE

Workers with higher education are primarily responsible for the increase in the number of employed people. There is only a fall in the employed population with primary education or less. In terms of hours, compared with the first quarter of 2019, there are 120,000 fewer employees who declare that they want to work longer hours; the reduction can be seen at all levels of education except for workers with higher education, where there are no changes.

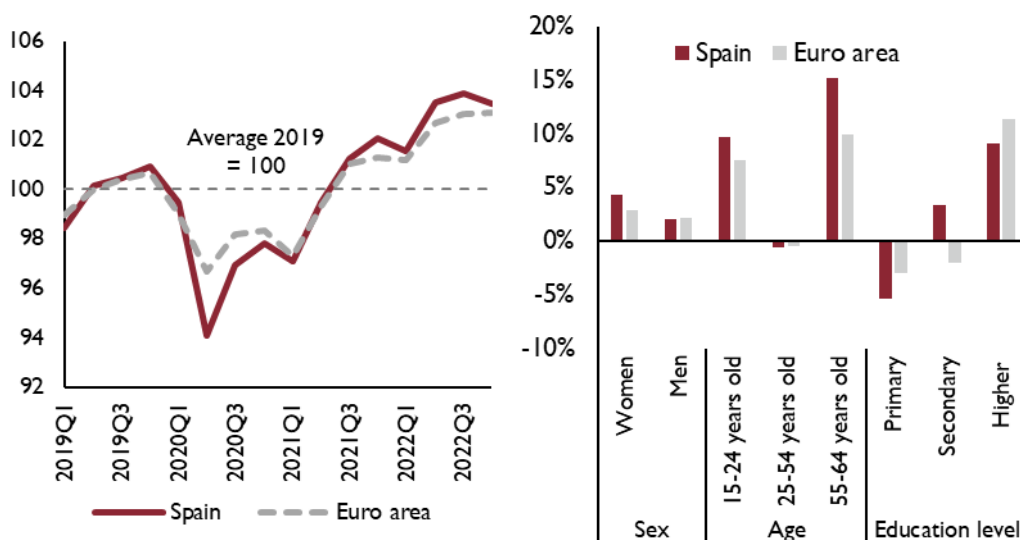
FIGURE B1_12. CHANGE IN THE NUMBER OF EMPLOYED PEOPLE COMPARED WITH THE SAME QUARTER OF 2019 AND UNDEREMPLOYED WORKERS BY LEVEL OF EDUCATION ACHIEVED (THOUSAND PEOPLE)



Source: INE

The behaviour of employment has characteristics common to the countries of the euro area, both in its evolution and in its composition. This behaviour of the employment figures is very similar to that observed in the euro area as a whole, both in its evolution and in the population groups in which the employed population is rising.

FIGURE B1_13. EVOLUTION OF EMPLOYED PEOPLE AND RATE OF CHANGE OF THOSE EMPLOYED PEOPLE BY SEX, AGE AND LEVEL OF EDUCATION ACHIEVED (FIRST QUARTER OF 2023 COMPARED WITH THE SAME QUARTER OF 2019)

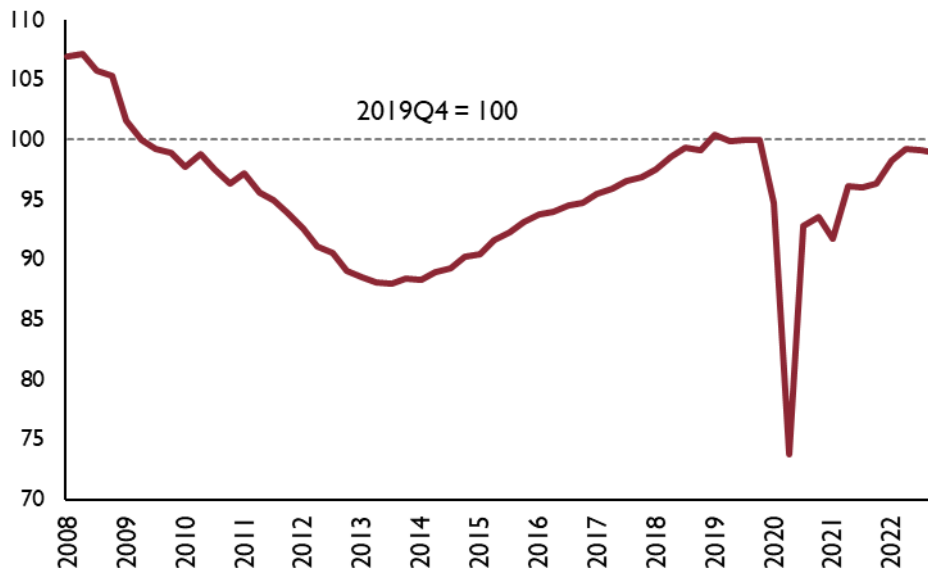


Source: Eurostat

The evolution of employment in terms of hours worked has been less dynamic than in terms of number of contributors or employed people in the LFS. The hours worked according to the QNA remain slightly below pre-

pandemic levels, despite the fact that the level of contributors or employed people is much higher.

FIGURE B1_ 14. EVOLUTION OF HOURS WORKED QNA (2019Q4=100)

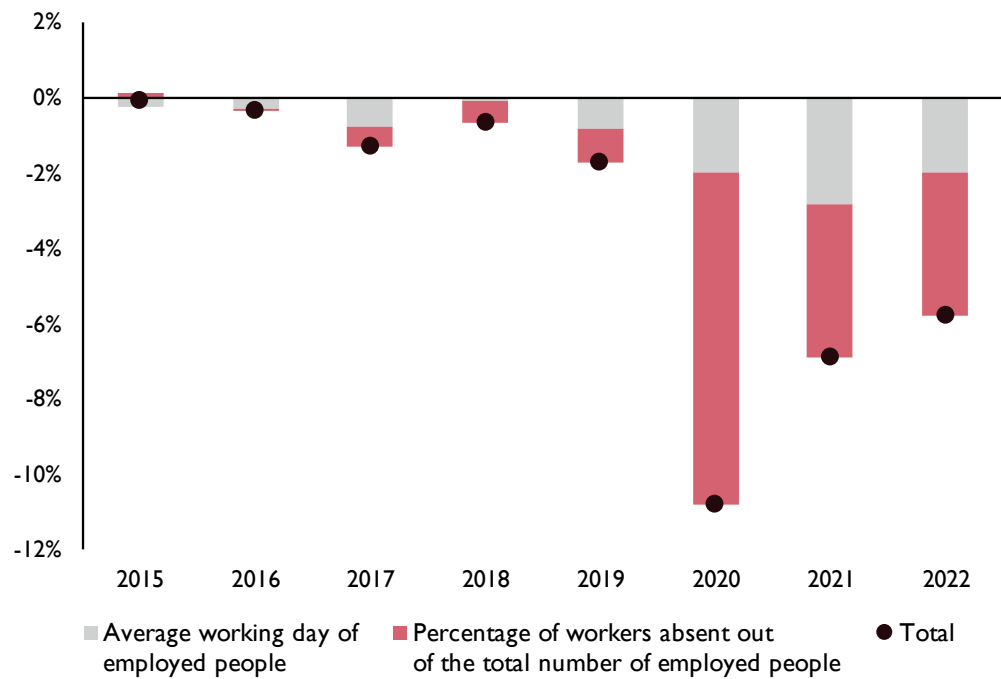


Source: INE

The average working day per person has followed a downward path in recent decades⁹, but has experienced a more pronounced reduction after the outbreak of the pandemic. A detailed analysis based on LFS data shows that this is due to an increase in the percentage of employees absent from their employment and, to a lesser extent, to a decrease in the working hours of employees who worked during the reference period.

⁹ Cuadrado, M^a P (2023).

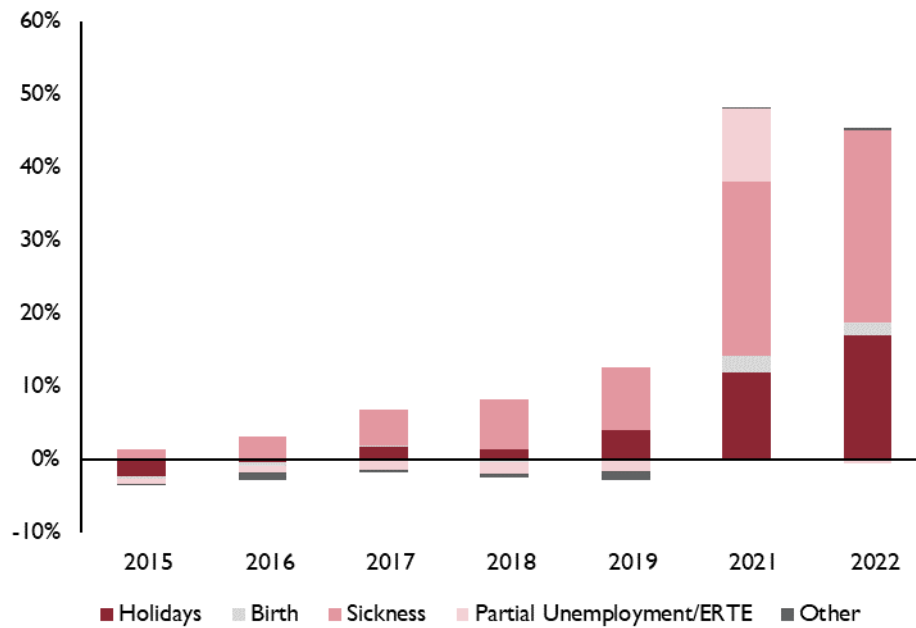
FIGURE B1_ 15. CHANGE IN THE AVERAGE WORKING DAY COMPARED WITH THE REFERENCE YEAR (2014)



Source: INE

The increase in absences after the pandemic is mainly due to the increase in sick leave. In 2022, the increase in sick leave contributed 26 percentage points to the total change in absences compared with 2014, while the percentage of employed people who are on holiday during the reference period contributes 17 percentage points to that change. The extension of paternity leave since 2019 has contributed around 2 percentage points to the increase in absences with respect to the reference year.

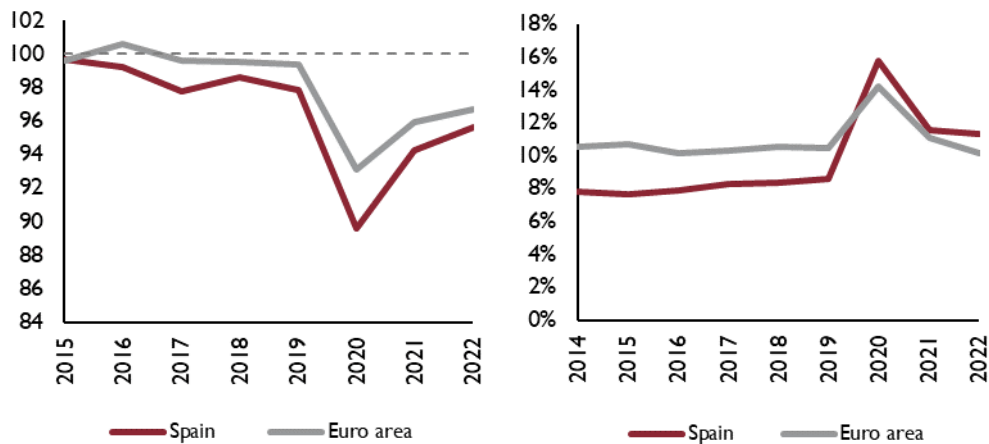
FIGURE B1_ 16. CHANGE IN THE PERCENTAGE OF ABSENT WORKERS COMPARED WITH THE REFERENCE YEAR (2014) BY REASON



Source: INE

This reduction in the average working day can also be seen in the euro area as a whole, although the explanatory factors appear to be different. Thus, in the euro area in 2022 the percentage of employees absent has returned to pre-2020 levels, while in Spain it is now above the average.

FIGURE B1_ 17. AVERAGE WORKING DAY (YEAR 2014=100) AND PERCENTAGE OF EMPLOYEES ABSENT



Source: Eurostat

In the coming months, it will be interesting to see if the two factors that influence the reduction in the average working day remain at the levels reached after the pandemic or if they return to their previous path.



BOX 2. THE TRANSMISSION OF MONETARY POLICY TO THE SPANISH ECONOMY

A key element of the macroeconomic scenario is to analyse the intensity and the time when the change in monetary policy stance will affect economic activity. With the rate hike in the summer of 2022 and the end of its asset purchase programmes, the ECB ended a period of extraordinarily accommodative financial conditions that had been in place for seven years. According to the available evidence and AIReF's analysis, the ECB and FED rate hikes observed in the second half of 2022 can be expected to affect economic activity and prices with particular intensity in 2023 and beyond.

Economic theory usually considers that the transmission of monetary policy occurs in three stages. First, central bank rates are modified, which leads to an alteration of the financing conditions of households and companies and the public sector. Agents then change their consumption and savings decisions in response to the new financial conditions. The alteration of consumption and savings plans causes changes in supply and demand that end up being reflected in prices. The speed and impact of this transmission process is uncertain and depends on many factors and, in particular, the channels through which the shocks are transmitted. The most immediate channels are usually expectations, asset prices and the credit channel. This would be followed by exchange rate channels, spillover effects in a monetary union and changes in risk attitudes.

The transmission process has been the subject of prolific empirical research that attempts to isolate the impact of monetary policy on economic activity. The empirical literature, which uses the United States as the reference economy, has employed different strategies to identify the shock structurally and unanimously suggests that increases in central bank rates lead to a deterioration in output. However, the evidence on the timing and intensity of this impact is very heterogeneous. In general, the impact is in the form of an inverted hump, reaching the maximum negative impact between 8 and 24 months and with a size ranging from -0.6% to -5% in the case of the US economy.

TABLE B2_ 1. EMPIRICAL EVIDENCE ON THE EFFECTS OF CONTRACTIONARY MONETARY POLICY SHOCKS ON ECONOMIC ACTIVITY IN THE US

	Scientific article	Method	Trough of a 100-bp shock	Percentage of output explained
1	Christiano et al. (1999)	SVAR	—0.7% in 24 months	4.4% in 2 years
2	Faust et al. (2004)	HFI	—0.6% in 10 months	
3	Romer & Romer (2004)	Narrative/Greenbook	—4.3% in 24 months	Most of it
4	Uhlig (2005)	Sign restrictions		5–10%
5	Bernanke et al. (2005)	FAVAR	—0.6% in 18 months	5% in 5 years
6	Smets–Wouters (2007)	Estimated DSGE model	—1.8 in 12 months	10% in 1 year
7	Boivin et al. (2010)	FAVAR	—1.6% in 8 months	
8	Coibion (2012)	Robust Romer - Romer methods	—2% in 18 months	Most of it
9	Barakchian–Crowe (2013)	HFI Romer hybrid var	—5% in 23 months	50% in three years
10	Gertler–Karadi (2015)	HFI proxy SVAR	—2.2% in 18 months	
11	Amir Ahmadi and Uhlig (2015)	Bayesian FAVAR with sign restrictions	—1.3% in 9 months	7% in 24 months

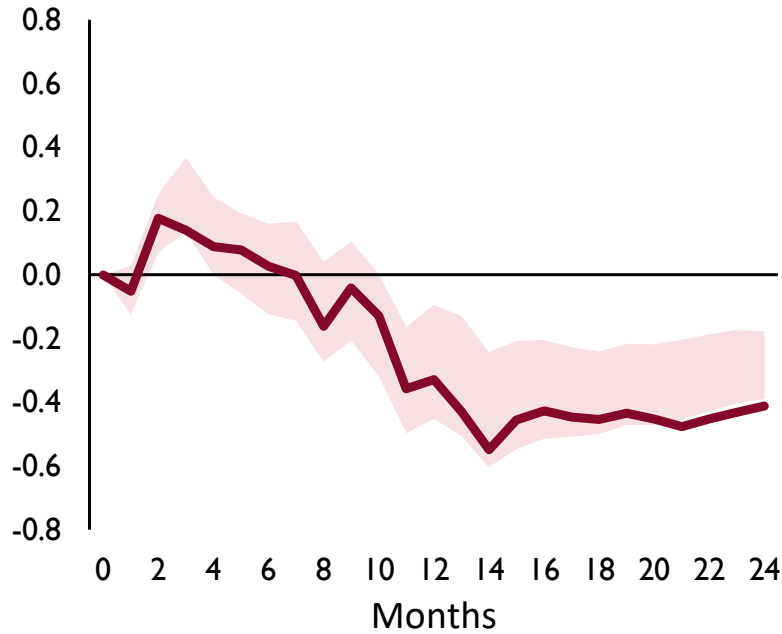
Source: Ramey (2016). Macroeconomic shocks and their propagation. *Handbook of Macroeconomics*. Links to the articles: (1), (2), (3), (4), (5), (6), (7), (8), (9), (10), (11).

Note: The table shows the maximum negative impact of a contractionary monetary policy shock to the U.S. The trough impact on economic activity is the result of applying a standardised shock across all methodologies of 100 basis points in the federal funds rate.

AIReF's estimates of monetary policy transmission in Spain suggest that an interest rate shock has a negative impact on economic activity with a lag of around eight to ten months. According to the results obtained, the negative impact on economic activity would start to be noticed from 8-10 months and would reach a maximum of around -0.6% after 14-20 months. These estimates are the result of an SVAR model with monthly data for Spain. The model is identified recursively following [Christiano et al. \(1999\)](#) using deflated sales of large firms, the ECB deposit facility rate and the CPI. The results are robust to the use of different interest rate indicators such as the deposit facility rate of the ECB or the 3-month Euribor, as well as to different economic activity metrics such as the IPI, the monthly factor of the MIPred model and the deflated sales of large companies.

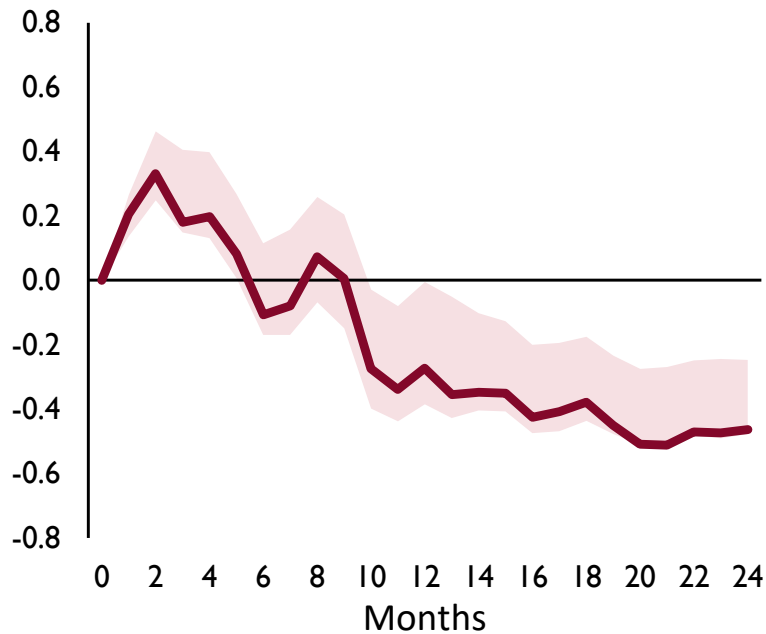
IMPACT OF A CONTRACTIONARY MONETARY POLICY SHOCK

FIGURE B2_1. IMPACT OF A ONE STANDARD DEVIATION SHOCK TO THE ECB DEPOSIT FACILITY RATE ON LARGE COMPANIES' SALES



Source: AIReF

FIGURE B2_2. IMPACT OF A ONE STANDARD DEVIATION SHOCK TO THE 3-MONTH EURIBOR ON LARGE COMPANIES' SALES



Source: AIReF

Note: the impulse response functions of a one standard deviation shock on the deflated sales growth of large firms in Spain are shown. They are the result of an SVAR model with monthly data from January 2000 to February 2023. The model has been identified recursively following

the approach of [Christiano et al. \(1999\)](#). The confidence intervals have been generated using bootstrapping techniques with 1,000 simulations and the intervals between the 30th and 70th percentiles are plotted.

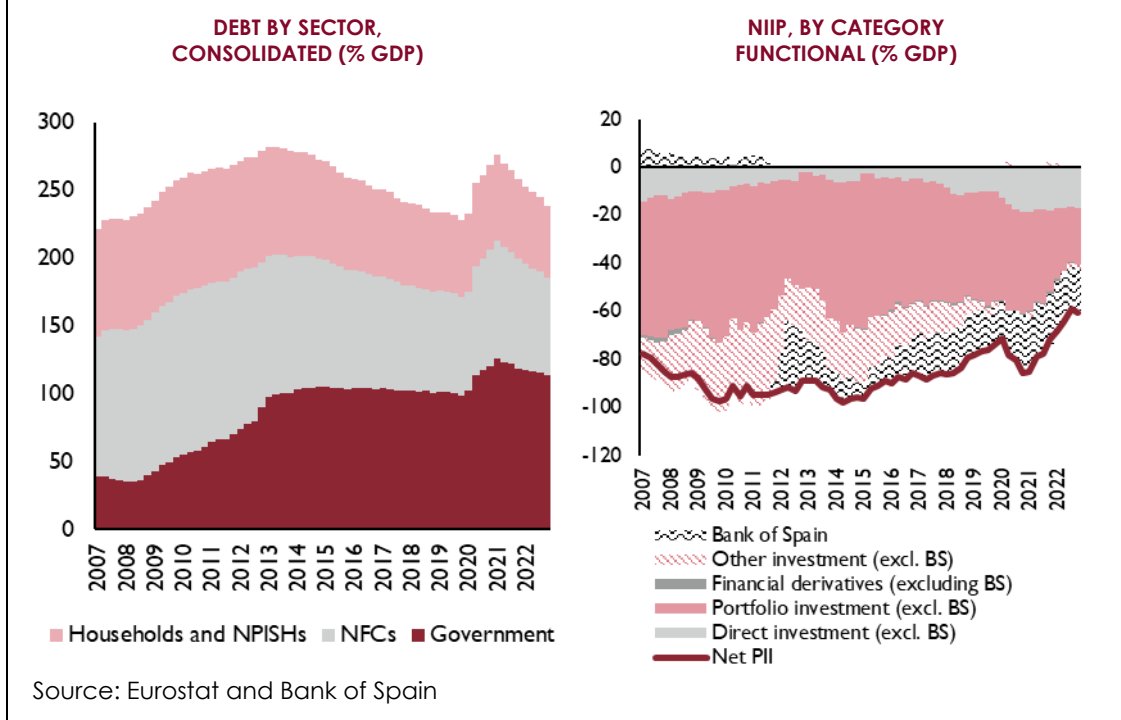
These results on lags in monetary policy transmission are in line with other evidence available for the Spanish economy¹⁰. In a monetary union, the intensity of the impact may differ depending on the channel of propagation of the shock but the sign of the impact is common. In euro area countries, including Spain, the spread of contractionary shocks manifests itself in real variables (such as GDP, unemployment and industrial production) from the tenth month onwards¹¹. The usual determinants that explain these differences in the transmission in different countries of a monetary union include trade openness and the structure of the banking system.

The Spanish economy is in a more favourable situation than in 2008 to deal with possible tensions that may accompany the tightening of monetary conditions. Beyond the effects of the transmission of monetary policy on economic activity, the tensions in financial markets over recent months have led us to think that the tightening of monetary conditions may be accompanied by greater exposure of the global economy to financial shocks. In this regard, the Spanish economy is in a stronger position than in the previous financial crisis. On the one hand, real estate markets do not present significant imbalances according to the analyses carried out by different institutions and the current account balance of payments shows a surplus and the Net International Investment Position is more robust, which removes the risk of a balance of payments crisis. On the other hand, the debt-to-GDP ratio of non-financial corporations (NFCs) and households and NPISH remains at high levels, although already lower than at the peak of the financial crisis and on a downward path - in the case of households and NPISHs, the net debt-to-GDP ratio stood at 53% in the fourth quarter of 2022, compared with 85.6% in the second quarter of 2010, while in the case of NFCs this ratio stood at 72.2%, compared with 119.9%. In contrast, the public debt-to-GDP ratio in 2022 is 113.2% of GDP, much higher than the 35.8% recorded in 2007.

¹⁰ Mandler, M., Scharnagl, M., & Volz, U. B. (2016). Heterogeneity in euro-area monetary policy transmission: Results from a large multi-country BVAR model.

¹¹ Hafemann, L., & Tillman, P. (2017). The aggregate and country-specific effectiveness of ECB policy: Evidence from an external instruments (VAR) approach (No. 20-2017). MAGKS Joint Discussion Paper Series in Economics.

FIGURE B2_3. DEBT COMPOSITION AND NET INTERNATIONAL INVESTMENT POSITION

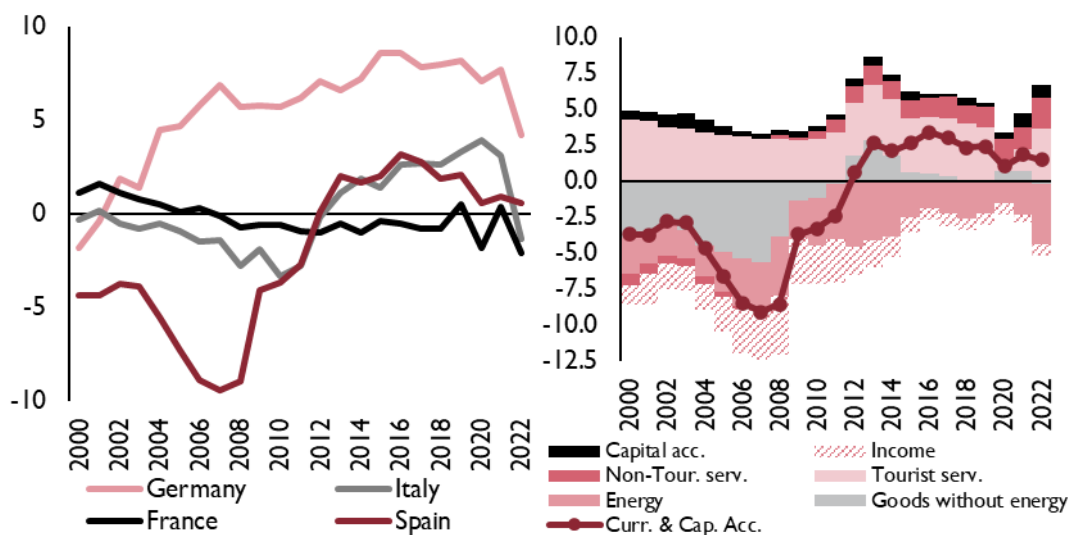


BOX 3. RECENT EVOLUTION OF EXPORTS OF GOODS AND SERVICES

Throughout 2022, exports of goods and services performed very strongly while imports decelerated. This has resulted in a high contribution of the external balance to GDP growth of about 2.4 pp. These figures were only previously achieved in the context of the global financial crisis and the sovereign debt crisis.

In addition, despite the deterioration of the real trade relationship over 2022, the Spanish economy managed to keep the balance of the current account practically unchanged, in contrast to the case of other European economies in that year. The deficit in the goods headings caused by the higher price of energy goods would have been offset by the performance in the tourist and non-tourist services headings.

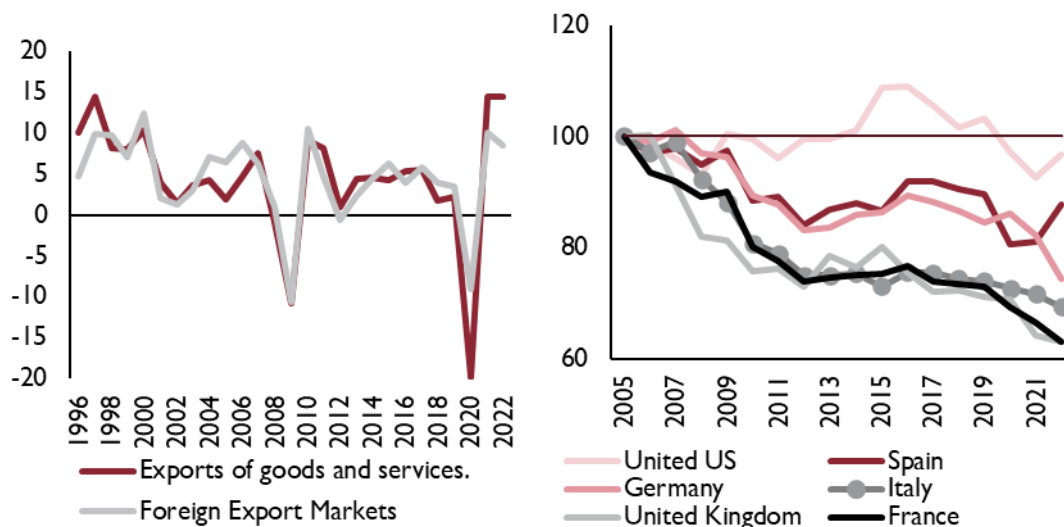
FIGURE B3_1. EVOLUTION OF THE CURRENT ACCOUNT BALANCE OF THE BALANCE OF PAYMENTS AND NET LENDING (+)/NET BORROWING (-)



Source: Eurostat and Bank of Spain

A particularly noteworthy aspect of this behaviour is the dynamism shown by exports in 2021 and 2022, resulting in an increase in the share of foreign markets that has made it possible to recover the figures prior to the COVID-19 epidemic. The improvement in the share of Spanish exports contrasts with the drop observed in other peer economies such as Germany, Italy and France.

FIGURE B3_2. EVOLUTION OF EXPORTS OF GOODS AND SERVICES AND WORLD SHARE

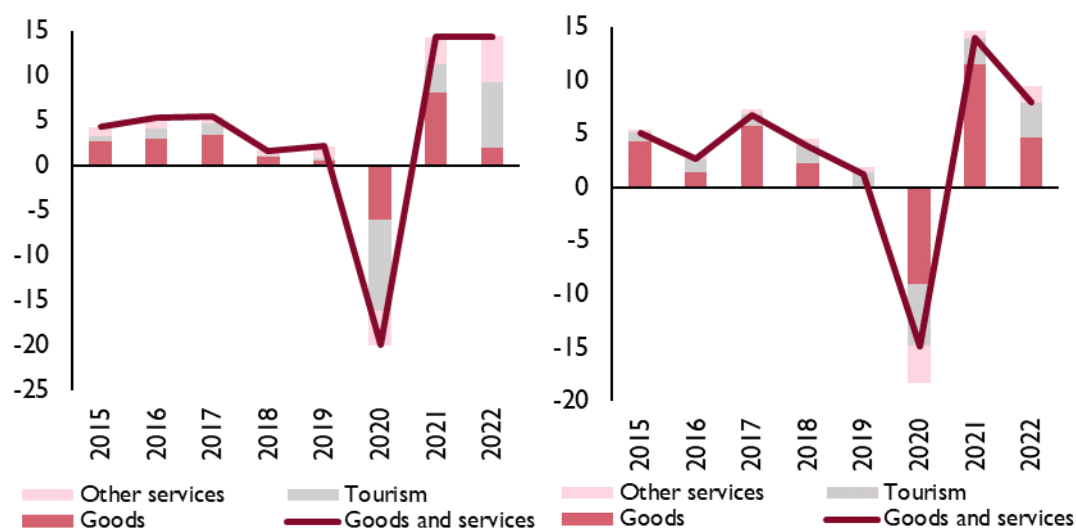


Source: INE, IMF and World Trade Organisation

In this regard, it is important to analyse the factors behind the performance of exports of goods, analysing their composition by geographical area and product.

At an aggregate level, in 2021 the sales of goods abroad contribute to explaining much of the dynamism observed, while services made a moderate contribution influenced by the impact of the pandemic on international tourism. In contrast, in 2022, the normalisation of tourist flows during the second half of 2022, together with the boost in exports of other services, would largely explain the increase in foreign sales.

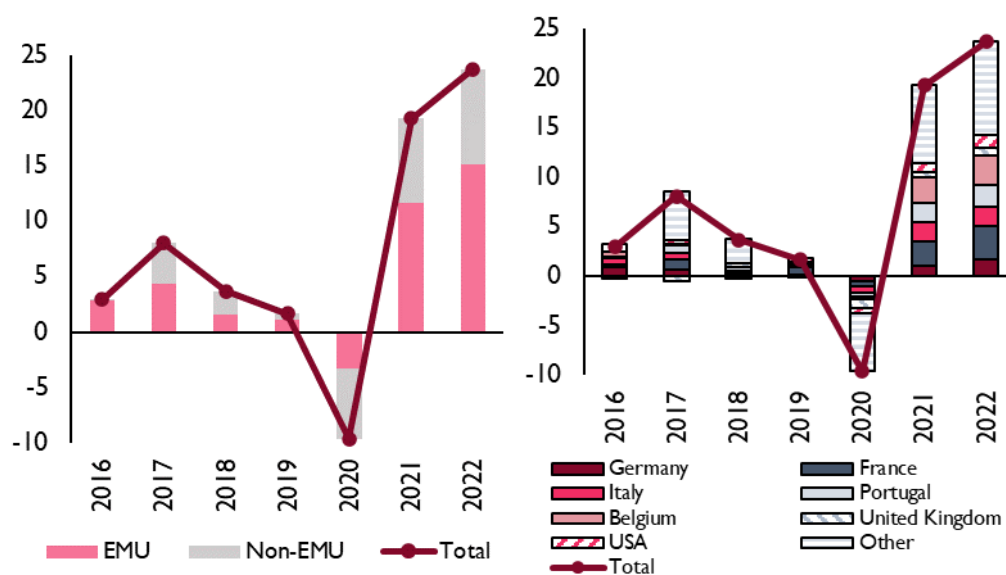
FIGURE B3_3. CONTRIBUTIONS TO GROWTH IN EXPORTS AND IMPORTS OF GOODS AND SERVICES (% AND PP)



Source: Eurostat

Analysing exports of goods by geographical area and product, it can be seen that much of the dynamism recorded over 2021-2022 is primarily linked to the performance of exports to the euro area and, in particular, those destined for France, Belgium, Italy and Portugal.

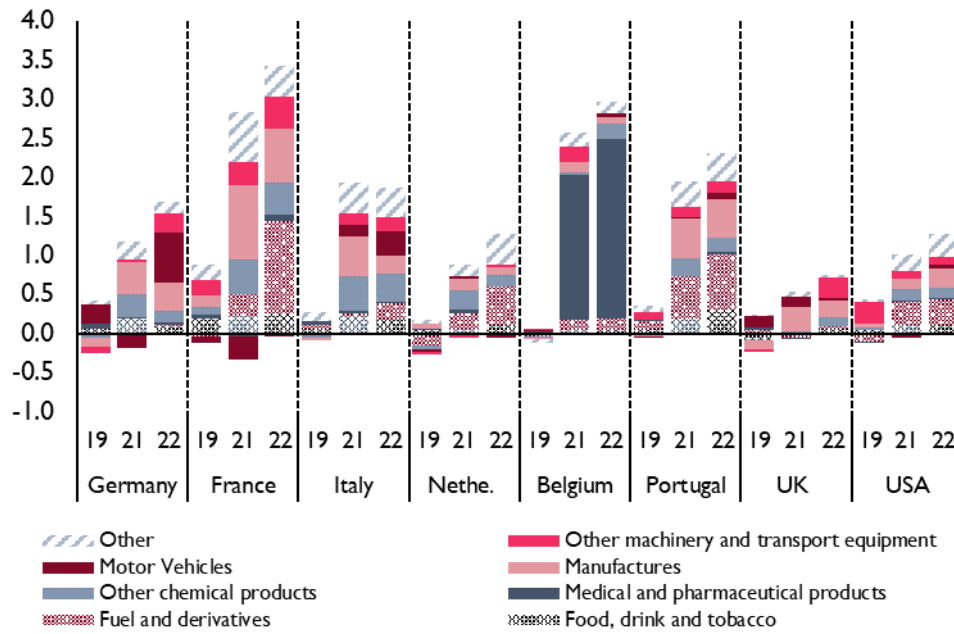
FIGURE B3_4. EXPORTS OF GOODS IN CURRENT TERMS. MAIN CONTRIBUTIONS TO GROWTH BY GEOGRAPHICAL DESTINATION



Source: Eurostat

Particularly noteworthy is the major contribution to the total growth in exports of sales of medical and pharmaceutical products to Belgium. The contribution of the heading of energy products is also significant and reflects the re-export of energy to neighbouring countries such as France and Portugal, given the refining capacity of the Spanish economy. There was also an increase in energy sales to the Netherlands.

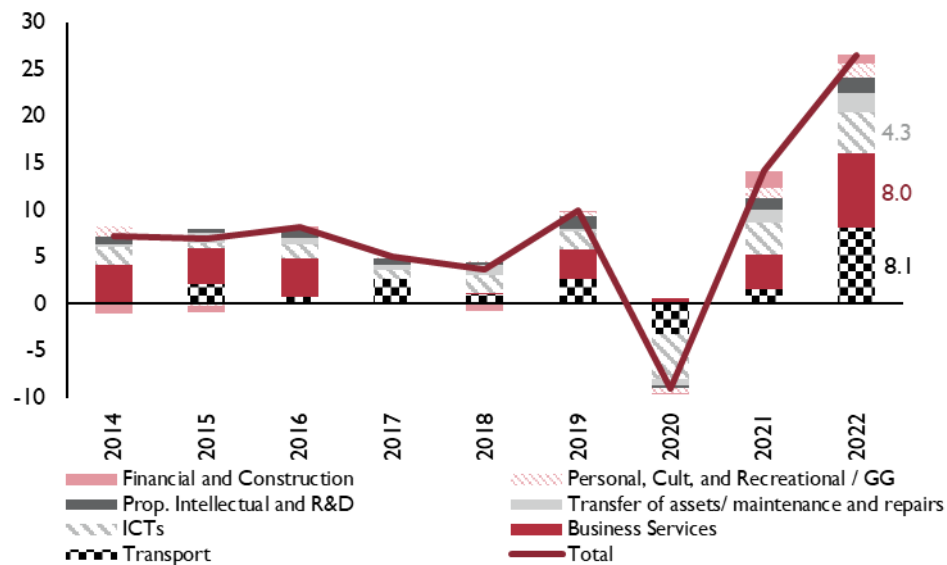
FIGURE B3_ 5. EXPORTS OF GOODS IN CURRENT TERMS. MAIN CONTRIBUTIONS TO GROWTH BY GEOGRAPHICAL DESTINATION AND PRODUCT



Source: Eurostat

On the services side, revenue data from non-tourism services reflect a high contribution from transport-related services, business services and services associated with Information and Communication Technologies (ICT).

FIGURE B3_ 6. BREAKDOWN OF THE BALANCE OF NON-TOURIST SERVICES. CONTRIBUTIONS TO GROWTH.



Source: Bank of Spain

These results are consistent with the increase in the export base and the increasing internationalisation of Spanish companies over the last decade. However, some elements can also be seen that might be of a more short-term nature, caused by the shock of COVID-19 and the war in Ukraine.

3. ANALYSIS OF THE 2023-2026 BUDGETARY SCENARIO

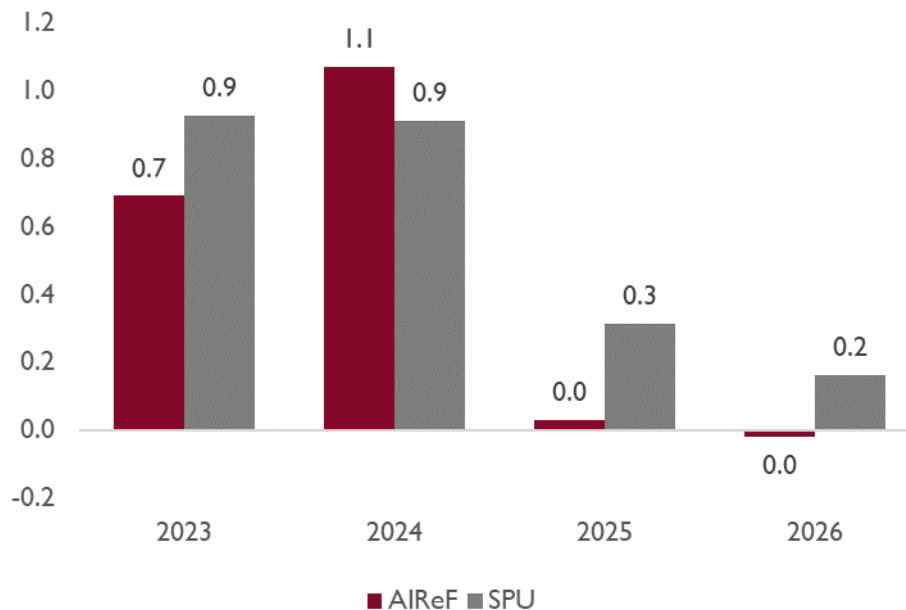
AIReF forecasts a GG deficit of 3% of GDP in 2026, 0.5 points higher than that included in the SPU and with a different time profile. AIReF's forecasts concentrate the reduction in the deficit between 2023 and 2024 mainly as a result of the phasing out of the measures to combat the energy crisis. Thus, in the absence of further measures, the deficit would fall in 2023 by 0.7 points and by just over one additional point in 2024, when a deficit of 3% would be reached. The reduction in the deficit stops and it remains at 3% for the rest of the period. The Government's scenario is more optimistic throughout the path, considering a reduction in 2023 and 2024 of almost one point each year to reach 3% in that year. In subsequent years, the SPU presents additional reductions of 0.3 points and 0.2 points each year to end 2026 with a deficit of 2.5%.

TABLE 4. REVENUE AND EXPENDITURE AS % OF GDP (WITHOUT NGEU).

	AIReF					SPU			
	2022	2023	2024	2025	2026	2023	2024	2025	2026
REVENUE	42.6	42.6	43.0	43.0	43.2	43.4	43.3	43.7	43.8
EXPENDITURE	47.4	46.7	46.0	46.0	46.2	47.3	46.3	46.3	46.3
DEFICIT	-4.8	-4.1	-3.0	-3.0	-3.0	-3.9	-3.0	-2.7	-2.5

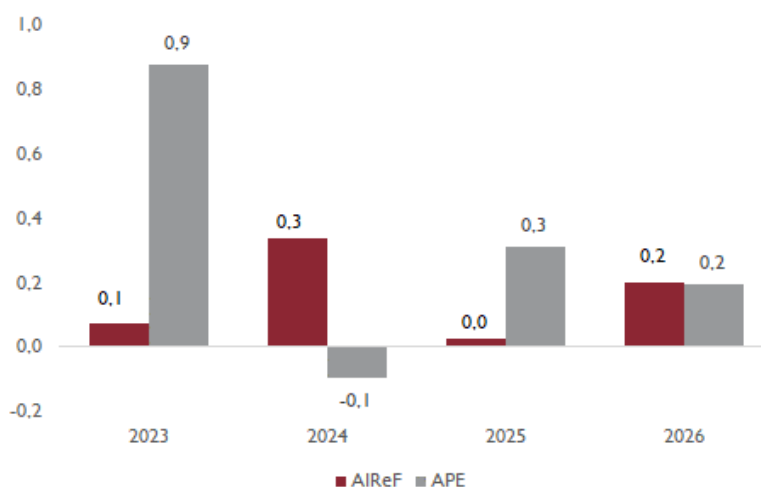
Source: SPU and AIReF

FIGURE 29. FORECAST OF ANNUAL DEFICIT REDUCTION WITHOUT RTRP (% GDP)

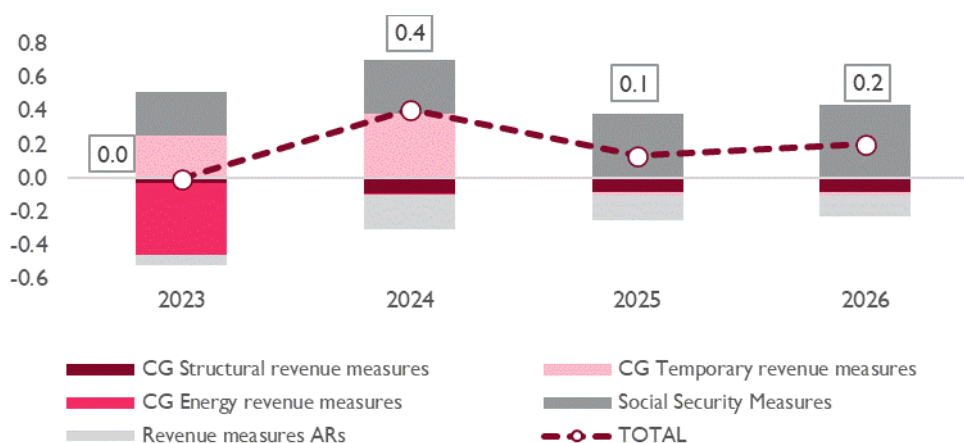


Source: SPU and AIReF

AIReF forecasts that the weight of revenue over GDP, excluding the RTRP, will stand at 43.2% in 2026, 0.6 points below the scenario forecast in the SPU. According to AIReF's forecasts, the weight of revenue over GDP rises in 2022 by less than one percentage point, compared with an increase of 1.3 points estimated in the SPU. After the strong growth experienced in 2021 and 2022, AIReF estimates that revenue slightly moderates its growth compared with 2022 to a year-on-year change of 7% in 2023, in line with economic activity, but somewhat offset by the revenue measures adopted to mitigate the effects of the energy crisis. This growth slows in 2024 to 5.8% as a result of the evolution of economic activity and two factors with conflicting effects: the absence of REACT revenue in the negative direction and the withdrawal of temporary measures to reduce energy and food taxes in the positive direction. In 2025, revenue growth is slowed by the disappearance of temporary revenue-increasing measures and the slower pace of nominal growth in the economy. This lower nominal growth of the economy is also reflected in 2026, with an increase in revenue of 3.9%.

FIGURE 30. FORECAST ANNUAL CHANGE IN REVENUE (WITHOUT RTRP) (% GDP)


Source: SPU and AIReF

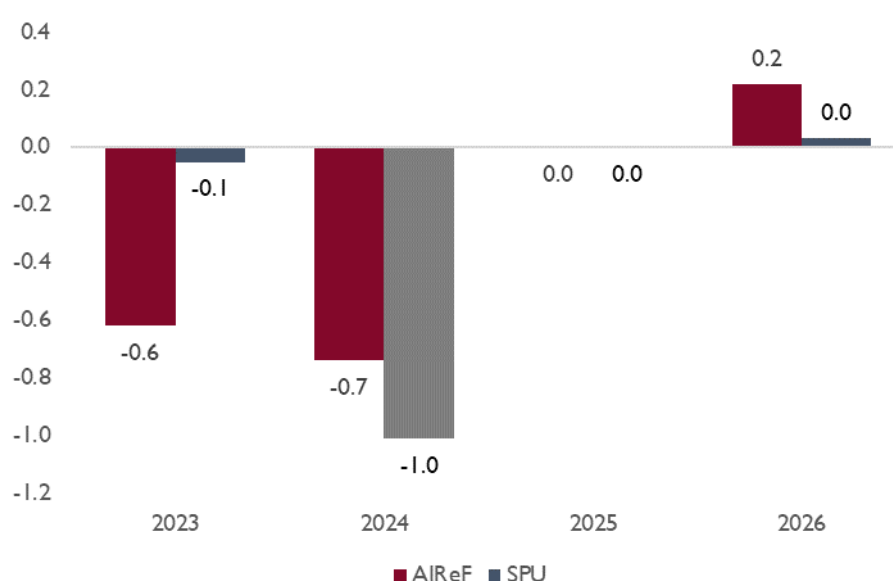
FIGURE 31. IMPACT OF MEASURES ON REVENUE (% GDP)


Source: AEAT and AIReF

AIReF considers higher growth in taxes on products and other revenue, while estimating an almost half-point lower growth in taxes on income and contributions. Once the measures to mitigate the effects of higher energy and food prices and temporary measures are removed, the weight of taxes on production will remain stable compared with the level reached in 2022, while the weight of taxes on income is expected to rise by 0.7 points in line with the forecasts for economic activity and the labour market. For their part, the weight of social contributions over GDP will rise by 0.3 points, mainly as a result of the measures approved, such as the Intergenerational Equity Mechanism and the increase in the maximum contribution bases. Finally, the weight of other revenue will fall to levels a little under those prior to the crisis, after the end of REACT in 2023.

The weight of expenditure, excluding the RTRP, also falls compared with 2022 in AIReF's central scenario, by more than one point to 46.2% of GDP in 2026, in line with the figure published in the SPU. The differences between AIReF and the SPU are concentrated in the profile and evolution of the components. In 2023, in the absence of further measures, AIReF expects a drop in overall expenditure, mainly due to the lower cost of the measures approved compared with 2022, while the SPU considers a stagnation of spending. In 2024, the SPU considers a greater reduction in expenditure than that estimated by AIReF. If more measures are approved over the year, the reduction in the weight of expenditure estimated by AIReF will be carried forward to 2024, the year in which the measures would cease to be in force. Expenditure will grow by 5.4% in 2023, influenced by the increase in pension expenditure, partially offset by the reduction in the cost of the measures to combat the energy crisis approved to date. From 2024 to 2026, AIReF estimates annual growth in expenditure of between 3% and 4%. This moderation in spending growth implicitly assumes a return to fiscal rules. The SPU shows higher growth in expenditure in each year of the period 2023-2025 and a slightly lower increase in 2026. Interest and social benefits in cash increase their weight compared with 2022 by almost one point due to the rise in interest rates and the increase in pensions in 2023 in line with the CPI of the previous year. In contrast, the components of public consumption reduce their weight over GDP compared with 2022 by about 0.6 points. Compared with the SPU, AIReF expects lower expenditure on public consumption, especially at the end of the period, and a higher weight of gross capital formation.

FIGURE 32. FORECAST ANNUAL CHANGE IN EXPENDITURE (WITHOUT RTRP) (% GDP)



Source: SPU and AIReF

The evolution of the public accounts in the period 2023-2026 continues to be affected by major uncertainty. On the one hand, this uncertainty comes from the macroeconomic environment, conditioned by significant risks identified in the section on fiscal risks, such as tensions towards greater trade fragmentation and global investment flows, the tension in financing conditions and the quality of implementation of the RTRP. These risks, as they materialise, will affect those variables that mainly depend on economic activity, income and unemployment expenditure. In addition, there is also uncertainty about the proposed new fiscal rules and their approval and entry into force in 2024, which will have an impact on the decisions of the GG and may result in higher deficit reductions.

AIReF estimates that RTRP-financed expenditure will rise in 2023 to one and a half points of GDP, the same level as that expected for 2024, before falling to 0.9 points in 2025 and 0.3 points in 2026. Following the principle of neutrality of RTRP funds on the deficit, revenue rises in parallel by the same amount. The SPU does not contain information on the expenditure path including the RTRP for the period 2023-2026 in national accounting terms for the GG as a whole.

TABLE 5. REVENUE AND EXPENDITURE AS % GDP (WITH RTRP)

	AIReF			
	2023	2024	2025	2026
REVENUE	44.2	44.4	43.9	43.5
EXPENDITURE	48.3	47.5	46.9	46.5
NET LENDING/BORROWING	-4.1	-3.0	-3.0	-3.0

Source: AIReF

FIGURE 33. TOTAL GENERAL GOVERNMENT
FIGURE 33A. NET LENDING/BORROWING (% GDP)

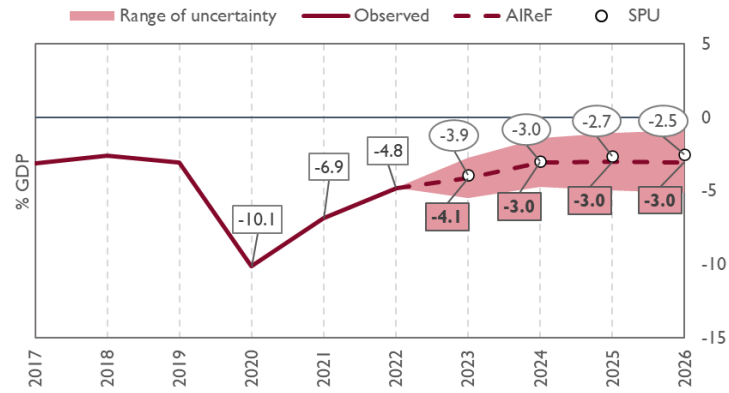


FIGURE 33B. REVENUE (% GDP)

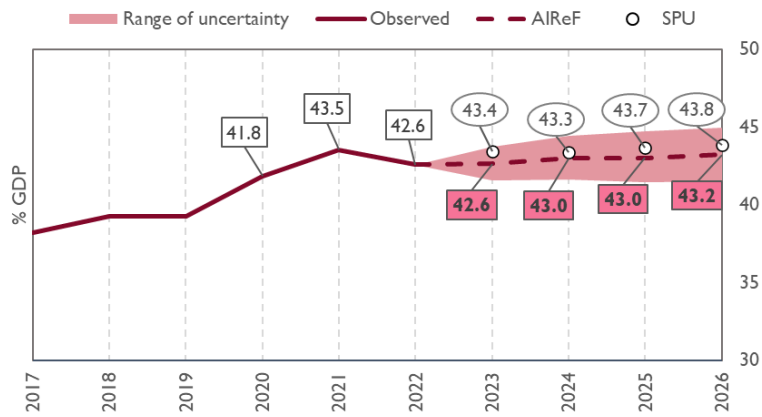
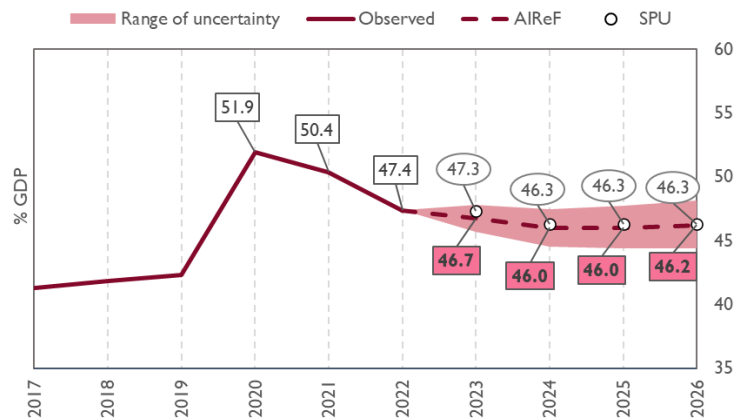


FIGURE 33C. EXPENDITURE (% GDP)



Source: IGAE, SPU and AIReF estimate.

3.1. Evolution of General Government revenue

The evolution of revenue over this period is influenced by the presence of temporary regulatory measures whose impact is felt differently in the different years analysed. AIReF estimates a less dynamic evolution of revenue due to

lower growth of taxes on income from 2023 and throughout the projection period. However, it considers a greater recovery in taxes on production and imports following the removal of the tax reductions implemented to alleviate the rise in prices. With regard to social contributions, AIReF considers that they are less dynamic than in the SPU in 2023, while showing greater recovery over the rest of the period. In 2023, the measures reduce collection due to the tax reductions implemented to mitigate the energy crisis and price rises. However, they are partially offset by the temporary revenue measures established for 2023 and 2024 (See Section 3.4 Impact of the measures on the General Government accounts). In 2024, legislative measures positively influence collection due to the combination of the withdrawal of tax reductions on energy products and the maximum impact of temporary tax measures. From 2025 onwards, the temporary measures disappear, leaving only the negative impact of the structural measures introduced in the 23GSB. This is mainly the result of the increase in the reduction in income from work and the minimum taxation set for PIT.

TABLE 6. REVENUE IN % OF GDP (WITHOUT NGEU) AIREF VS. SPU.

	AIReF					SPU			
	2022	2023	2024	2025	2026	2023	2024	2025	2026
REVENUE	42.6	42.6	43.0	43.0	43.2	43.4	43.3	43.7	43.8
TAXES	24.9	24.9	25.4	25.3	25.5	25.5	25.8	26.2	26.5
<i>On production</i>	12.1	11.8	12.3	12.1	12.0	11.9	12.0	11.9	11.8
<i>On income</i>	12.4	12.6	12.7	12.8	13.1	13.2	13.5	14.0	14.3
<i>Capital</i>	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3
CONTRIBUTIONS:	13.6	13.6	13.8	13.9	13.9	13.9	14.0	14.0	14.0
Other revenue	4.1	4.1	3.7	3.8	3.8	4.0	3.5	3.5	3.4

Source: AIReF and SPU

TABLE 7. BREAKDOWN OF THE DIFFERENCES IN AIREF VS SPU REVENUE, % GDP

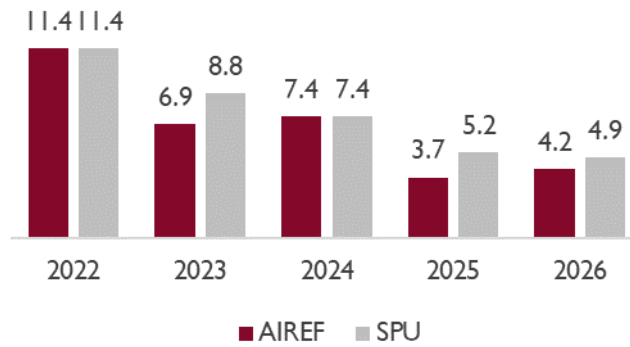
	AIReF	SPU	Diff. AIReF-SPU	Breakdown of the differences			
				Taxes on production	Taxes on income	Contributions	Other
2023	42.6	43.4	-0.8	-0.1	-0.7	-0.3	0.2
2024	43.0	43.3	-0.4	0.3	-0.8	-0.2	0.3
2025	43.0	43.7	-0.7	0.2	-1.2	-0.1	0.4
2026	43.2	43.8	-0.6	0.2	-1.3	-0.1	0.5

Source: AIReF and SPU

AIREF estimates that tax revenue will amount to 25.5% of GDP in 2026, one point below the SPU forecasts. Although both the SPU and AIReF consider that taxes on income drive revenue upward during the period 2023-2026, in general terms, the Government's estimates deviate from AIReF's estimates, especially with regard to the weight of these taxes and of other revenue. The weight that

AIReF estimates for taxes on income in 2026 is 1.3 points lower than that estimated by the SPU. In the opposite direction, AIReF estimates 0.2 points more than the SPU for taxes on production and products, an additional 0.1 points for taxes on capital and an additional 0.5 points for other revenue.

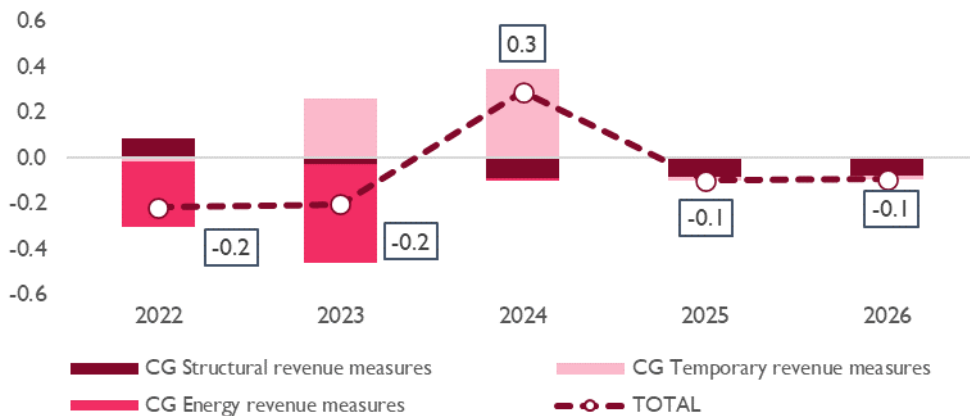
FIGURE 34. EVOLUTION OF TOTAL TAXES (% CHANGE), AIREF VS SPU



Source: AIReF and SPU

The evolution of tax revenue estimated by AIReF is linked to the impact of the measures approved for the projection period. In 2023, the weight of the measures to combat the energy crisis offsets the positive impact of the temporary measures, pushing revenue down. In 2024, the removal of these measures combined with the continuation of the temporary measures drives taxes up, while the rest of the period is only affected by structural measures that reduce revenue.

FIGURE 35. TAX MEASURES (% GDP)

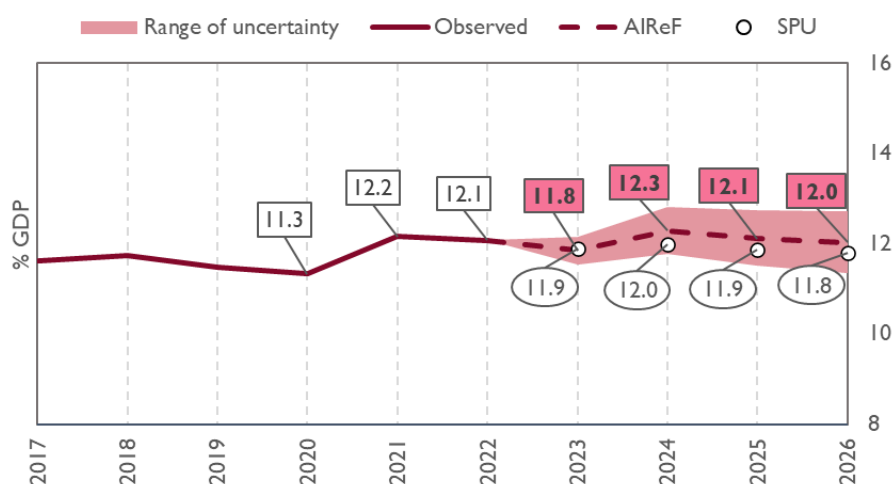


Source: AIReF and SPU

3.1.1. Taxes on production and imports

AIReF estimates revenue from taxes on production and imports at the end of the period at a weight of 12% of GDP, 0.2 points above the Government's estimates. The main components of this heading are VAT and taxes on products, including special taxes, which since 2023 incorporate the new Tax on Single-Use Plastics. In 2023 and 2024, they also include temporary levies on energy companies and financial institutions. Of the 12 points of GDP that this revenue reaches at the end of the period, 7.2 correspond to VAT, 3.2 to taxes on products and 1.7 to other taxes on production. Their evolution over the period is altered by the legislative measures (see Section 3.4.1 Measures in response to the energy crisis). The tax reductions implemented to mitigate the rise in prices reduce this item in 2023 by over 0.6 points of GDP, which are partially offset by the entry into force of the energy and financial levies that add 0.2 points of GDP in 2023 and 2024 and expire from 2025 onwards. For its part, the Tax on Single-Use Plastics incorporates a little under 0.05 points of GDP from 2023 onwards.

FIGURE 36. TAXES ON PRODUCTION AND IMPORTS, GENERAL GOVERNMENT. IN % GDP

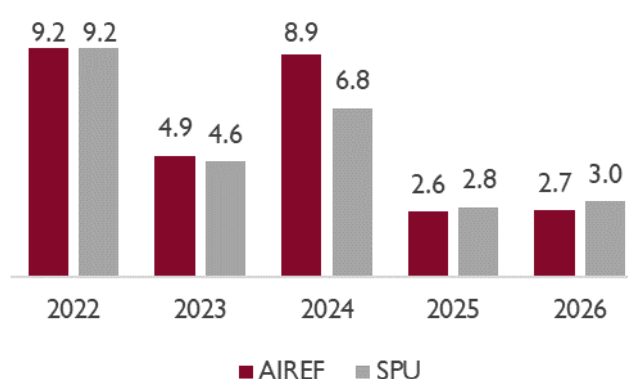


Source: AIReF and SPU

For taxes on production and imports, AIReF forecasts growth of 4.9% in 2023, which rises to 8.9% in 2024 due to the measures and slows down at the end of the period to amount to 2.7% in 2026. After the sharp increase of 9.2% in 2022, driven by the rise in prices and the evolution of economic activity, despite the tax cuts implemented to mitigate the rise in prices, AIReF estimates more moderate growth of 4.9% in 2023, more than 0.2 points below the Government's estimate. In 2024, it forecasts a greater recovery than the SPU as the effect of the measures taken to mitigate the price rises disappears. In the case of the Special Tax on Electricity and the Tax on the Value of Electricity

Production, values above those observed before the price rises are estimated. This is due to the fact that, despite the progressive fall in electricity prices on futures markets, they remain above the average of recent years. A less dynamic scenario than the SPU is expected as from 2024 as a result of the disappearance of the effect of temporary measures. This is due to the evolution of macroeconomic variables, mainly domestic demand linked to the evolution of VAT and real GDP linked to the evolution of special taxes.

FIGURE 37. EVOLUTION OF TAXES ON PRODUCTION AND IMPORTS (% CHANGE), AIREF VS. SPU



Source: AIReF and SPU

TABLE 8. AIREF BREAKDOWN OF TAXES ON PRODUCTION AND IMPORTS (% CHANGE)

Taxes on production and imports	2022	2023	2024	2025	2026
Total	9.2	4.9	8.9	2.6	2.7
Value-added taxes VAT	13.1	2.8	8.9	4.7	4.1
Taxes on products	4.4	6.1	11.2	0.1	2.0
Other taxes on production	3.4	11.0	5.0	-0.9	-2.0

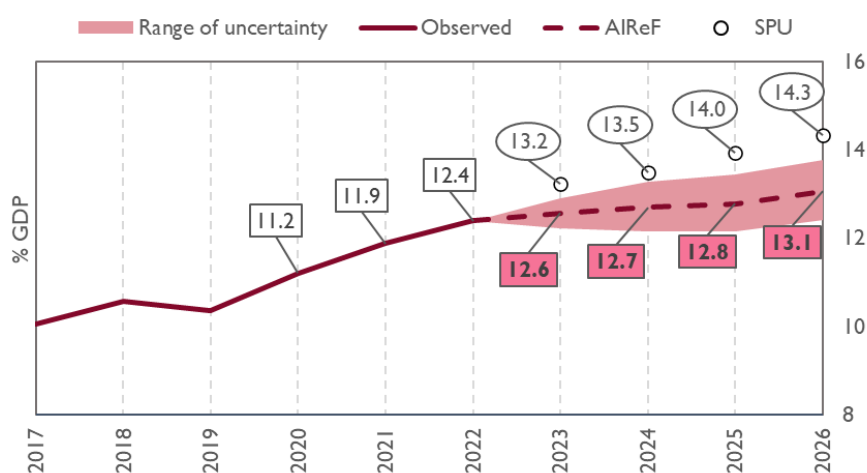
Source: AIReF

Taxes on production return to pre-pandemic elasticities as from 2024. The outbreak of the pandemic led to a separation between the evolution of VAT and that of the macroeconomic variable of domestic demand, with a greater fall in Final Expenditure Subject to VAT in 2020 and greater growth in 2021. This divergence is not explained by regulatory changes and may be due to certain factors such as the reduction in fraud or changes in household consumption patterns. AIReF's forecasting models readjust these imbalances and produce values that for 2023 have an elasticity with respect to domestic demand that is lower than the historical average, to which they return as from 2024. In addition, if the SPU's macroeconomic scenario were taken as the basis for AIReF's forecasting models, taxes on production and imports in 2026 would be 0.3 points of GDP higher than the Government's.

3.1.2. Taxes on income and wealth

AIReF forecasts a lower level in 2023 for taxes on income and wealth than the Government and a lower dynamism throughout the period, reaching 13.1% of GDP in 2026, 1.3 points below the SPU forecasts. The main items making up this heading are Personal Income Tax (PIT), Corporate Income Tax (CIT) and Non-Resident Income Tax (NRIT). Of the 13.1 points of GDP at the end of the period, 10 correspond to PIT (including NRIT of natural persons), 2.8 are attributed to Corporate Income Tax (including NRIT of legal persons), and 0.3 to other current taxes. As with taxes on production, the legislative measures implemented have an impact on the change in taxes on income during the period analysed. In the negative direction, the structural measures introduced in the 23GSB reduce the weight of taxes on income from 2023 by 0.1 points of GDP. This is mainly due to the increase in the reduction in income from work and the minimum taxation in PIT, despite the entry into force of the minimum rate of 15% on the taxable base of Corporate Income Tax (see Section 3.4.2 Other revenue measures of the Central Government). However, this effect is offset up to 2024 as a result of the positive impact of the Temporary Solidarity Tax on Large Fortunes and the limitation, also temporary, on offsetting losses in Corporate Income Tax established in the 23GSB, which add a little more than 0.1 points GDP in 2023, almost 0.2 points in 2024 and disappear from 2025.

FIGURE 38. CURRENT TAXES ON INCOME AND WEALTH. GENERAL GOVERNMENT IN % GDP

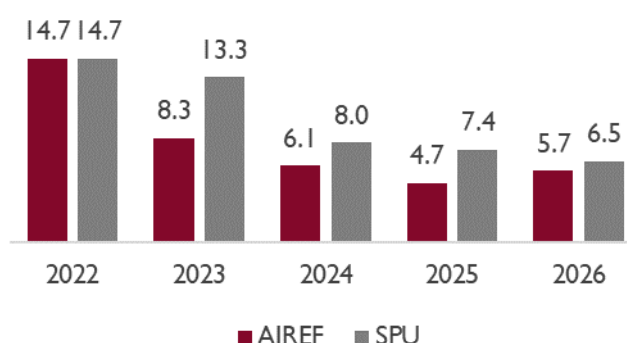


Source: AIReF and SPU

AIReF forecasts a gradual decline in the growth of taxes on income from 8.3% in 2023 to 4.7% in 2025, and an acceleration to 5.7% at the end of the period. AIReF forecasts less intense initial growth than that of the SPU and less dynamic growth throughout the period. For PIT, AIReF's forecasts assume strong growth in 2023, albeit lower than that recorded in 2022 due to lower estimated employment growth. In addition, AIReF assumes a lower elasticity with regard

to compensation of employees than the historical average, which recovers at the end of the projection period. In the case of Corporate Income Tax, after the strong growth recorded over the last two years, AIReF estimates growth above the gross operating surplus in 2023. It then slows down in 2024 and in 2025 is affected by the withdrawal of temporary measures, and stabilises at the end of the period. The rest of the current taxes rise in 2023 due to the entry into force of the Solidarity Tax on Large Fortunes to return as from 2025 to their usual levels.

FIGURE 39. EVOLUTION OF CURRENT TAXES ON INCOME AND WEALTH (% CHANGE), AIREF VS. SPU



Source: AIReF and SPU

TABLE 9. AIREF BREAKDOWN OF CURRENT TAXES ON INCOME AND WEALTH (% CHANGE)

Current taxes on income and wealth	2022	2023	2024	2025	2026
Total	14.7	8.3	6.1	4.7	5.7
PIT (including NRIT natural persons)	15.8	7.3	6.0	7.5	6.3
Corporate Inc. Tax (including NRIT legal persons)	12.5	11.0	7.0	-2.0	4.1
Other current taxes	4.7	14.0	1.3	-12.4	0.4

Source: AIReF

AIReF's forecasting models adjust the imbalances with regard to the evolution of macroeconomic variables at the end of the period. During the pandemic, there was a decoupling between the evolution of PIT wage bases and that of the macroeconomic variable compensation of employees correlated with its growth. There was a smaller fall in PIT wage bases in 2020, a greater recovery in 2021, influenced by the income support measures, and greater growth in 2022. In parallel with the points explained in the previous section on VAT, AIReF's forecasting models readjust these imbalances and produce values that have an elasticity with respect to compensation of employees that is lower than the historical average and which recovers at the end of the

projected period. If the SPU's macroeconomic assumptions are applied to AIReF's forecasting models, revenue from taxes on income at the end of the period would be comparable with those estimated by AIReF, also standing at 1.3 points of GDP below those presented by the Government.

3.1.3. Taxes on capital

According to AIReF, taxes on capital stand at 0.4 points of GDP at the end of the period, 0.1 points higher than the SPU. In 2022, this heading recorded an exceptional fall due to the new regulation of the Tax on the Increase in Value of Urban Land¹² and due to the refunds made as a consequence of the previous regulation being declared unconstitutional. AIReF forecasts a full recovery of previous levels in 2023, while the SPU estimates a lower level than in recent years, with the differences continuing until the end of the projection period.

¹² RDL 26/2021

BOX 4. VARIABILITY OF TAX REVENUE

In 2022, tax collection reached an all-time high, exceeding €255bn, a rise of 14.4% compared with 2021, despite the legislative measures taken to mitigate price rises, which in 2022 are estimated to reduce tax collection by €8.24bn¹³.

By taxes, PIT contributes almost half of this increase, VAT just over 30%, despite the reduction in the rates on energy products, and Corporate Income Tax 17%. For their part, Special Taxes and other revenue only account for an increase of 5% of total collection. They are affected by the reduction in the rate of the Special Tax on Electricity and the suspension of the Tax on the Value of Electricity Production.

AIRcF has carried out an exercise to break down the variability of the main taxes in order to quantify the different factors that have led to this increase in tax collected so as to serve as the basis for analysing the structural cyclical nature of this growth.

The variability factors have been defined in detail and independently for each tax analysed, taking into account: (a) the relationship between the tax bases and the underlying macroeconomic variables, in which the component of real evolution or volume of the price component¹⁴ has been broken down using data from earners and income from the Tax Agency in the case of PIT, and AIRcF's forecasting models on their respective tax bases in the case of VAT and Corporate Income Tax; (b) the collection structure inherent to each tax; (c) the legislative measures adopted in each period. As a result, the variability factors are classified into six categories: (i) real, (ii) prices, (iii) effective rates, (iv) legislative measures, (v) others and (vi) unexplained variability.

This analysis shows that of the 14.4% increase recorded by revenue in 2022, 6 points are due to the increase in prices and 1.4 are associated with the increase in effective rates. The real factor, which would relate the macroeconomic variables linked to the evolution of the main taxes, explains

¹³ In relation to the reduction in rates of VAT and Special Taxes on Electricity and the suspension of the Tax on the Value Electricity Production, in cash terms

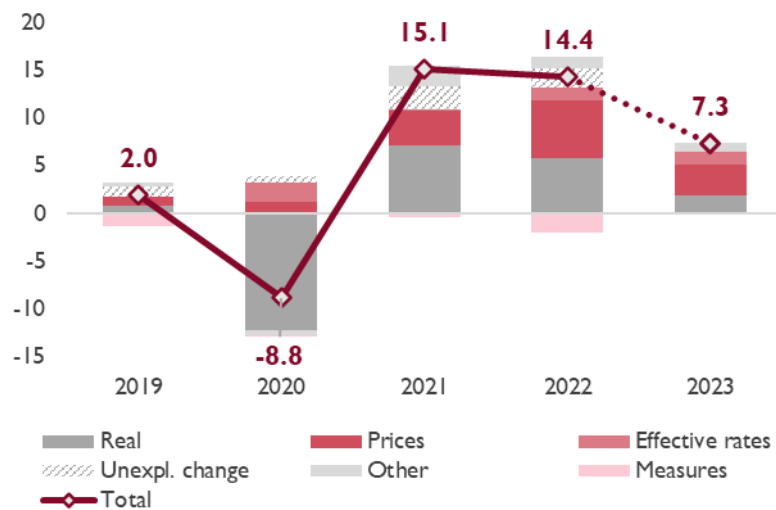
¹⁴ Macroeconomic variables associated with the evolution of the main taxes:

- PIT: 1) real change: Public and private employees, pensioners and second-hand housing transactions; 2) Price change: average income and house price index
- Corporate Income Tax: Gross Operating Surplus
- VAT: Domestic Demand

5.8 points of growth. A further 1.1 points of growth would be associated with the evolution of other aspects such as capital withholdings, the annual Corporate Income Tax return, refunds and extraordinary income and settlements made by the Government, among others. In 2022, the legislative measures subtract 2 points from the increase in total revenue due to the impact of the tax reductions implemented to alleviate the price rises¹⁵. Other growth accounts for 2.1 points, corresponding to the variability of VAT and Corporate Income Tax that cannot be explained through their associated macroeconomic variables or other factors.

TABLE B4_1. BREAKDOWN OF THE VARIABILITY OF TAX REVENUE

	Annual rate of change (% change)					Weight over GDP (% GDP)				
	2019	2020	2021	2022	2023	2019	2020	2021	2022	2023
Total	2,0	-8,8	15,1	14,4	7,3	0,3	-1,7	2,4	2,4	1,3
Real	0,9	-12,1	7,2	5,8	1,8	0,1	-2,3	1,2	1,0	0,3
Prices	0,9	1,3	3,6	6,0	3,3	0,2	0,2	0,6	1,0	0,6
Effective rates	0,0	2,0	0,1	1,4	1,3	0,0	0,4	0,0	0,2	0,2
Measures	-1,3	-0,1	-0,3	-2,0	-0,1	-0,2	0,0	-0,1	-0,3	0,0
Other	0,4	-0,5	2,1	1,1	0,9	0,1	-0,1	0,3	0,2	0,2
Unexpl. change	1,0	0,7	2,4	2,1	0,0	0,2	0,1	0,4	0,3	0,0

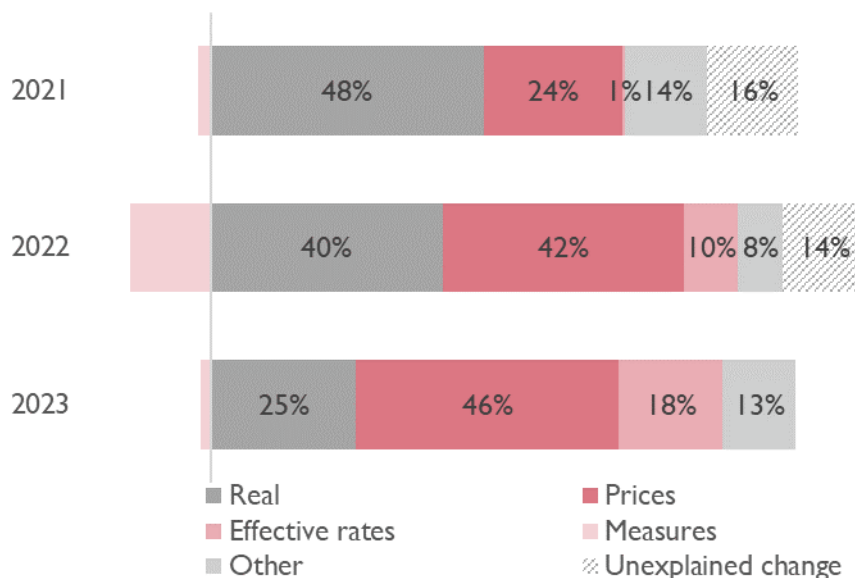
FIGURE B4_1. EVOLUTION OF TAX REVENUE 2019-2023


Regarding the evolution, the analysis shows that the fall in tax revenue during 2020 and its recovery over 2021 are mainly explained by the real component. This component falls in 2022, while the contribution of prices

¹⁵ RDL 12, 17; 29/2021; 6/2022; 11/2022; 17/2022 and 20/2022

and effective rates rises, which together explain 52% of the growth in tax revenue in 2022 and 64% of the growth forecast by AIReF for 2023.

FIGURE B4_2. DISTRIBUTION OF TAX REVENUE GROWTH 2021-2023



By tax, the evolution of PIT has been determined by the fall in private employment during the pandemic and its growth over 2021 and 2022. During 2022, employment continued to grow across-the-board both in large companies and in SMEs, with employment recovering in the bulk of the sectors most affected by the pandemic, including the hospitality sector. Over the last year, there has been an increase in pensions and a general increase in wages and, consequently, in effective rates. For 2023, salary and pension increases and their associated rates explain the increase in the forecasts.

The falls in the volume of consumption and investment in 2020 and their subsequent recovery in 2021 mark the evolution of VAT over these two years. The price rises associated with energy products begin from the second half of 2021. In 2022, this is the primary growth factor, partially offset by the legislative measures adopted to mitigate the rise in prices until 2023. The separation between the evolution of VAT and that of domestic demand since the pandemic is mainly responsible for the variability component not explained in AIReF's forecasting model. In 2023, growth is expected to be less intense than in the previous year and with a greater contribution in terms of prices than volume.

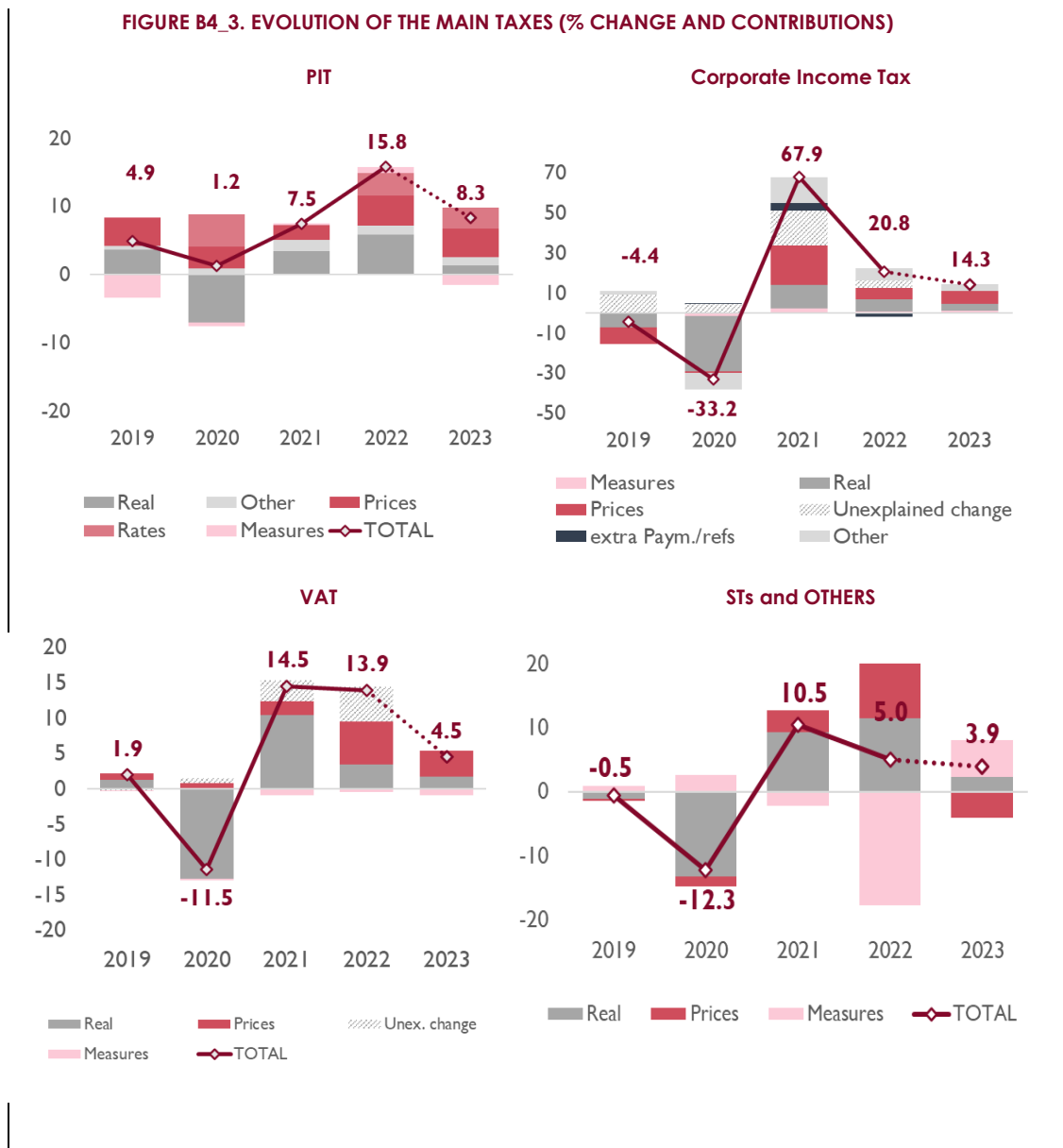
Corporate income tax is affected by the existence of elements such as the offsetting of tax loss carryforwards that make it difficult to compare with economic variables and are reflected in the unexplained variability

component. The real component explains the fall in the volume of business profits suffered in 2020 due to the pandemic, while in 2021 the factor associated with prices becomes more relevant and extraordinary revenue is recorded¹⁶. In 2022, the price and volume factors are balanced and exceptional refunds are made¹⁷, with a greater contribution from prices expected in 2023.

The evolution of Special Taxes and other taxes during the period analysed is determined by the general fall during the pandemic (which is more long-lasting in the case of Special Taxes than in other taxes), and as a result of the legislative measures on energy products that lower the rate of the Special Tax on Electricity and suspend the Tax on the Value of Electricity Production, whose application will be extended until the end of 2023.

¹⁶ 2021: Exceptional revenue from the merger of two large companies and from one asset sale.

¹⁷ 2022: Exceptional refunds due to a court ruling and tax credits due.

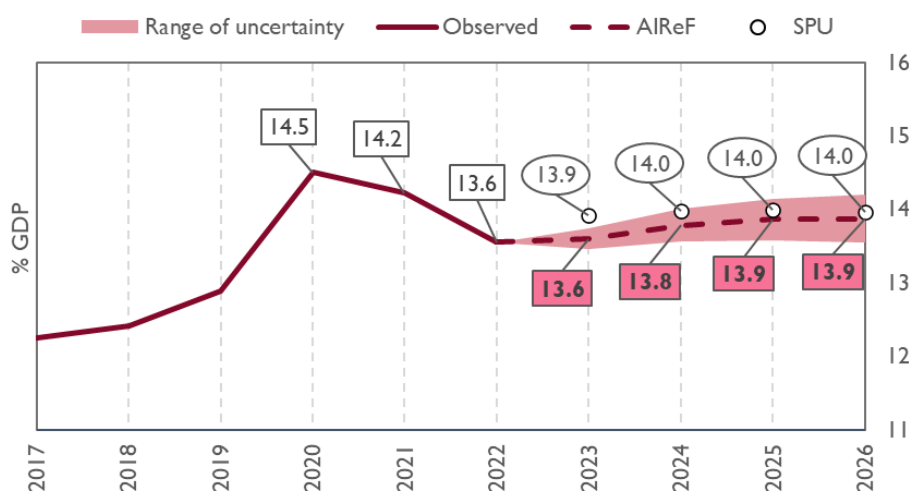


3.1.4. Social contributions

AIReF expects the weight of contributions as a proportion of GDP to rise from 13.6% in 2022 to 13.9% in 2026, compared with the 14% estimated in the SPU. AIReF estimates the aggregate to maintain its weight in 2023 at 13.6% as the entry into force of the Intergenerational Equity Mechanism and the buoyancy of contributions over recent months offset the GDP denominator effect. Over the rest of the period, the greater dynamism of compensation of employees, due to an increase in wages greater than the GDP deflator, together with the Intergenerational Equity Mechanism, the implementation of the solidarity contribution and the increase in the maximum contribution bases push the weight of the aggregate to 13.9% in 2026. According to the Government's

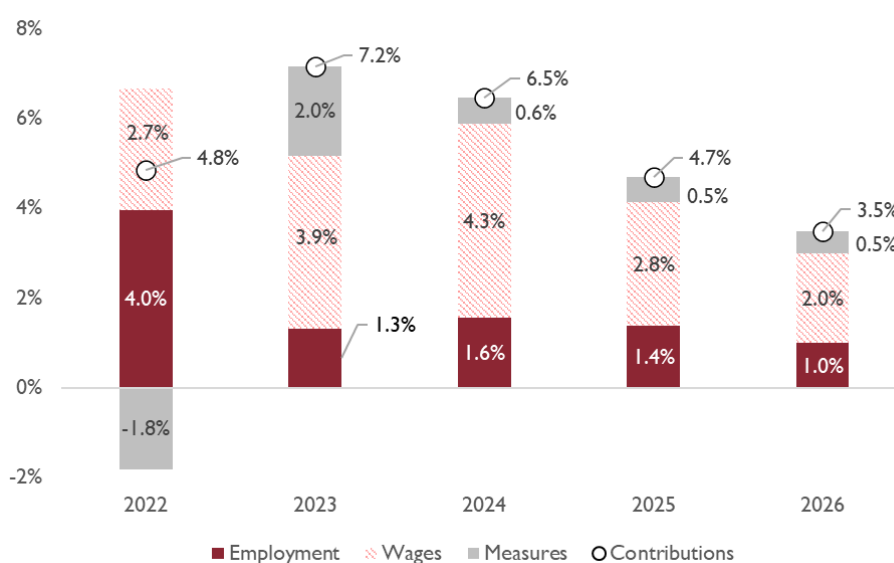
forecasts, social contributions rise from 13.6% to 13.9% of GDP in 2023, increase to 14% in 2024 and remain constant at 14% of GDP until 2026.

FIGURE 40. SOCIAL CONTRIBUTIONS. GG IN % GDP



Source: IGAE, SPU and AIReF

The positive trend in employment and wages, together with the entry into force of a series of measures that increase the implicit rate, drives the growth in social contributions over the 2023-2026 projection period. In 2023, the entry into force of the Intergenerational Equity Mechanism and the increase in the maximum contribution bases result in a positive contribution of the measures to growth. In the remainder of the period, the increase in the maximum bases, which has been set at the previous year's CPI plus 1.2 percentage points, together with the increase in the IEM contribution rate and the entry into force of the solidarity contribution in 2025 will push up the growth in this aggregate. Wages and employment maintain their positive contribution throughout the entire projection horizon.

FIGURE 41. BREAKDOWN OF GROWTH (% CHANGE) IN SOCIAL CONTRIBUTIONS


Source: IGAE and AIReF

3.1.5. Other revenue

AIReF estimates that other revenue will fall to 3.8% of GDP in 2026, 0.4 points above the SPU estimates. AIReF forecasts a starting level for 2023 at 0.2 points above the Government's estimate and a more positive evolution over the period. The weight of this heading mainly falls as a result of the withdrawal of the REACT funds, which according to AIReF's estimates will reduce the weight of this aggregate over GDP from 4.1% in 2023 to 3.7% in 2024, with a slight upturn to 3.8% at the end of the projection period.

3.2. Evolution of GG expenditure

AIReF estimates that expenditure will amount to 46.2% of GDP in 2026, 0.1 points less than the SPU forecasts. The expenditure path forecast by AIReF for the period 2023-2026 is lower than that forecast by the Government. It begins in 2023 with a difference of 0.6 points, which then falls to 0.3 points in 2024 and 2025, to finish at 0.1 points below the SPU forecasts in 2026. By expenditure component, AIReF expects lower expenditure at the end of the period on public consumption, social benefits in cash and subsidies. In contrast, it forecasts higher expenditure on gross capital formation and capital transfers. These forecasts do not contain the impact of expenditure financed from RTRP funds. This is due to the fact that the SPU, in accordance with the principle that these funds are neutral in the public accounts, has not incorporated them into its budgetary projections.

TABLE 10. EXPENDITURE AS % OF GDP (WITHOUT RTRP), AIREF VS. SPU.

	AIReF					SPU			
	2022	2023	2024	2025	2026	2023	2024	2025	2026
EXPENDITURE	47.4	46.7	46.0	46.0	46.2	47.3	46.3	46.3	46.3
Compensation of employees	11.6	11.3	11.3	11.2	11.1	11.3	11.2	11.2	11.2
Intermediate consumption	5.9	5.8	5.7	5.7	5.7	5.8	5.8	5.8	5.8
Social transfers in kind via market	2.9	2.9	2.8	2.8	2.8	2.8	2.9	2.8	2.9
Social benefits in cash	17.2	17.5	17.5	17.6	17.6	17.7	17.6	17.7	17.7
Interest	2.4	2.4	2.5	2.7	2.9	2.4	2.6	2.7	2.9
Gross capital formation	2.7	2.8	2.6	2.6	2.7	2.7	2.6	2.4	2.4
Subsidies	2.0	1.4	1.2	1.2	1.1	1.8	1.3	1.4	1.4
Capital transfers	0.9	0.8	0.6	0.6	0.6	1.0	0.6	0.5	0.5
Other expenditure	1.9	1.8	1.7	1.7	1.7	1.8	1.7	1.8	1.7
NET LENDING OR BORROWING	-4.8	-4.1	-3.0	-3.0	-3.0	-3.9	-3.0	-2.7	-2.5

Source: SPU and AIReF

TABLE 11. BREAKDOWN OF THE DIFFERENCES IN AIREF VS SPU EXPENDITURE, % GDP

	AIReF	SPU	Diff. AIReF-SPU	Breakdown of the differences				
				Public consumption components	Social benefits in cash	Interest	Gross Capital Formation	Other
2023	46.7	47.3	-0.6	0.0	-0.2	0.0	0.1	-0.4
2024	46.0	46.3	-0.3	-0.1	0.0	-0.1	0.0	-0.2
2025	46.0	46.3	-0.3	-0.2	-0.1	0.0	0.2	-0.2
2026	46.2	46.3	-0.1	-0.1	0.0	0.0	0.3	-0.2

Source: SPU and AIReF

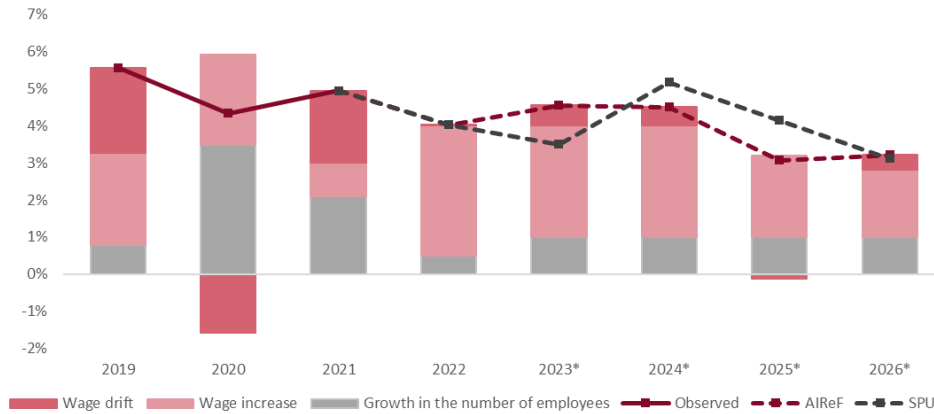
3.2.1. Public consumption

AIReF expects expenditure on public consumption to be slightly lower than that forecast in the SPU at the end of the period. AIReF's forecast for public consumption starts in 2023 in line with that of the Government, but ends up being 0.1 points lower in 2026. In an analysis by component, while intermediate consumption remains in the medium term at 0.1 points below the figure in the SPU, compensation of employees and transfers in kind are in line with the SPU, only with slight positive and negative differences. However, at the end of the period, all the components have a GDP weight somewhat lower than that estimated in the SPU.

AIReF's forecast for compensation of employees is 11.1% of GDP in 2026, almost 0.1 points below the SPU. AIReF forecasts that compensation of employees will fall to 11.1% of GDP in 2026 from 11.6% of GDP in 2022. The fall is concentrated in 2023 at 0.3 points of GDP, the result of nominal GDP growth above that of compensation of employees. AIReF estimates average growth of 3.8%, while the information from the SPU shows an average of around 4%, with lower growth rates in the final years. At any event, this growth would be

below the projections of nominal GDP and therefore its weight over GDP is expected to fall over the final two years to 11.1% in 2026.

FIGURE 42. BREAKDOWN OF THE GROWTH IN COMPENSATION OF PUBLIC EMPLOYEES (%)



Source: INE, IGAE and AIReF

AIReF assumes in its forecasts the improvements agreed for 2023 and 2024 and the increase in public wages in line with the CPI for 2025 and 2026. The improvements in remuneration agreed by the General Negotiation Committee of the Civil Service for 2023 and 2024 have been taken into account. For the rest of the period, in the absence of specific compensation agreements, the rate of increase in the CPI estimated by AIReF has been used. In addition, a wage drift has been considered that includes the payment of the arrears of 2023 in 2024 as a result of compliance with the condition on nominal GDP and that, in turn, reduces growth in 2025, which explains the negative wage drift in that year. As for the number of public employees, AIReF assumes the consolidation of a part of the employment associated with the COVID measures. In addition to this, an increase in the number of public employees of around 1% is assumed in accordance with the models based on the evolution of GDP and the population.

AIReF estimates expenditure on intermediate consumption at 5.7% of GDP in 2026, almost 0.1 points of GDP lower than that included in the SPU. AIReF estimates that expenditure on intermediate consumption will start at 5.8% of GDP and then stabilise at 5.7%, about 0.5 points higher than the pre-pandemic figure. This evolution of expenditure is conditioned by several factors. On the one hand, AIReF assumes the consolidation of part of the expenditure generated by COVID, which is in addition to the increase in military expenditure over the path as a result of the Government's commitment to NATO to increase defence spending. On the other hand, the path reflects the falling purchases of vaccines and other healthcare equipment, the expected easing of inflationary tensions and the cessation of electoral spending that is

concentrated at the start of the period, mainly in 2023, due to the holding of general, regional and local elections and, to a lesser extent, in 2024 due to the European elections.

AIRcF forecasts that expenditure on social transfers in kind will amount to 2.8% of GDP in 2026, almost 0.1 points less than the SPU forecast. The factors that have been taken into account in this evolution include, at the level of the CG, greater expenditure for certain measures such as the discount for rail transport and the Youth Culture Voucher. At the AR level, social transfers in kind incorporate remuneration increases and measures, as well as the impact of inflation on healthcare and education agreements. In addition, the increase in pharmaceutical expenditure is maintained and the increase in the Thermal Social Voucher is included. For the LGs, some support measures for families and groups in need resulting from the crisis persist. Finally, the medium-term forecast is that the weight of this expenditure over GDP will stabilise at 2.8% of GDP until the end of the period. This means an increase in its weight over GDP of 0.2 points compared with the values recorded in the years prior to the pandemic.

The comparison between the growth of the aggregate of public consumption¹⁸ and that of its components in the public accounts shows a lack of reconciliation in the SPU between the macroeconomic and the fiscal scenarios. For the macroeconomic aggregate, growth in nominal terms of 6% in 2023 is expected, which falls to 2.6% in 2025 and 2026, with average growth of 3.8% for the period. According to estimates made using the SPU data, compensation of employees, intermediate consumption and social transfers in kind will have an average growth of about 4%, similar to that shown in the macro scenario, although with a very different distribution of growth. In 2023, they will grow by around 4%, below the figures in the macroeconomic outlook, with their growth accelerating in 2024 above 5% and ending the period at growth of around 3.5%.

¹⁸ Public consumption is one of the macroeconomic aggregates that make up GDP on the demand side. In accounting terms, it is identified with the sum of certain headings in the General Government accounts, specifically, Compensation of employees (D.1), Intermediate consumption (P.2), Social transfers in kind purchased on the market (D.63), Other taxes on production (D.29) and Fixed capital consumption, deducting what are referred to as "Sales" from this sum (P.11, P.12 and P.131). Consequently, the evolution of the aggregate will be determined by that of its components.

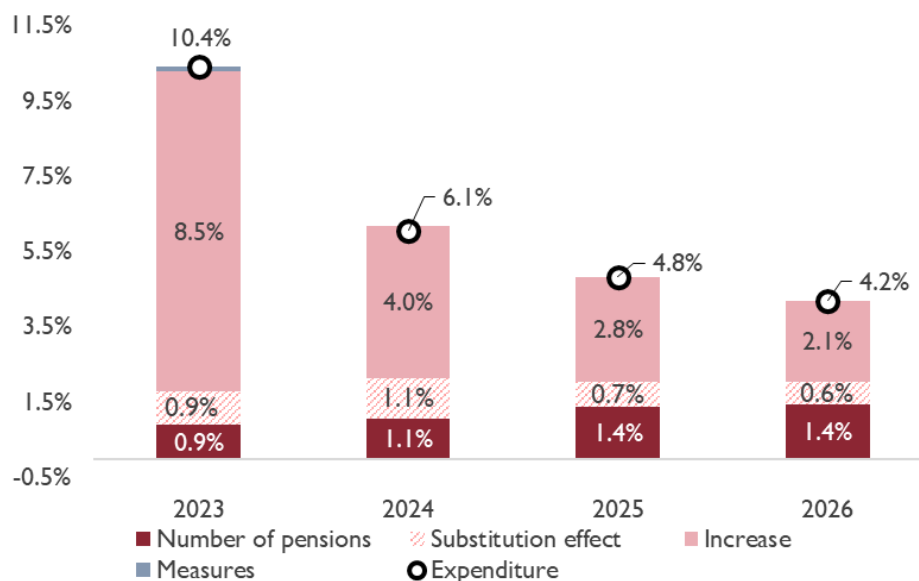
FIGURE 43. % CHANGE IN PUBLIC CONSUMPTION AND ITS MAIN COMPONENTS


Source: IGAE and SPU

3.2.2. Social benefits in cash

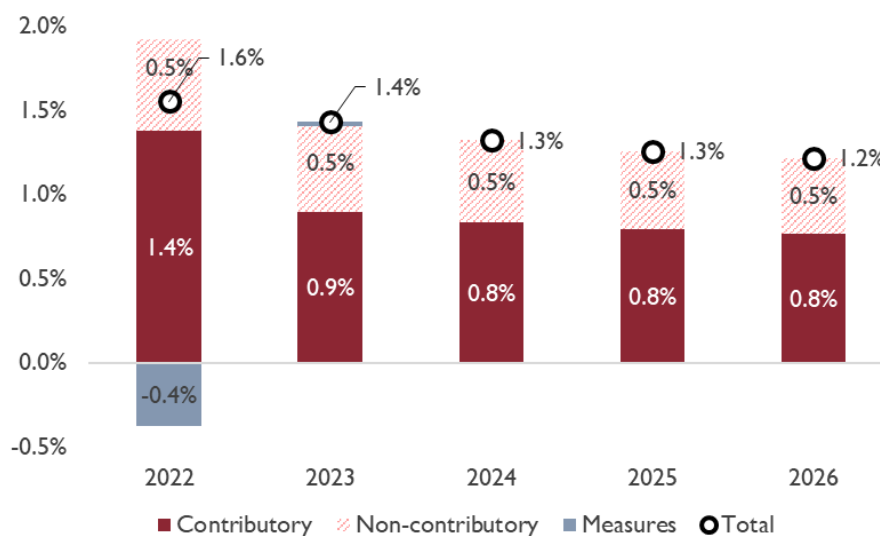
AIReF forecasts that social transfers in cash will increase by 0.4 points during the projection period, from 17.2% of GDP in 2022 to 17.6% in 2026, compared with the 17.7% estimated in the SPU. AIReF estimates that their weight over GDP will rise by 0.3 points in 2023 as a result of the increase in contributory pensions and by a further 0.1 points to 17.6% in 2026, mainly due to pension expenditure. This is partially offset by the expected improvement in the labour market, which generates a reduction in expenditure on unemployment.

AIReF estimates that pension expenditure will rise by 10.4% in 2023, 6.1% in 2024, 4.8% in 2025 and 4.2% in 2026. The evolution of pension expenditure is explained by the sum of the increase in the number of pensions, the annual pension increase, the substitution effect and the measures approved. AIReF estimates the increase in the number of pensions and the substitution effect with the pension expenditure projection model, and considers that the pension increase will be made in line with the CPI of the previous year, as established by Law 21/2021. Only the 15% increase in non-contributory pensions approved in RDL 20/2022 is included as a measure in 2023.

FIGURE 44. GROWTH IN PENSION EXPENDITURE (% CHANGE). AIREF PROJECTIONS


Source: eSTADISS and AIReF

Unemployment benefits fall from 1.6% of GDP in 2022 to 1.2% in 2026. In 2023, the practical elimination of job-retention scheme (ERTE) benefits compared with 2022 slightly reduces unemployment expenditure. However, this is offset by the cost of raising the IPREM (Public Multiple-Effect Income Indicator) on the cost of the unemployment benefit by 3.6% in 2023 and the cost of the subsidy for people over 52 years of age. Moreover, the expected reduction in the unemployment rate moderates unemployment expenditure over the entire projection horizon.

FIGURE 45. EVOLUTION OF UNEMPLOYMENT EXPENDITURE, % OF GDP. AIREF'S FORECASTS


Source: SEPE and AIReF

The other benefits included in social transfers in cash keep their weight over GDP at 4% of GDP throughout the projection period. Once the COVID measures disappear in 2022, the weight of other benefits remains stable throughout the projection path. This heading includes the impact of the line of direct support for people with a low level of income.

3.2.3. Subsidies

The weight of subsidies over GDP falls to 1.1% in 2026 as a result of the withdrawal of measures, to stand at 0.3 points of GDP below the SPU estimate at the end of the period. In 2023, this heading includes energy measures aimed at mitigating inflation, including the latest measures approved by Royal Decree-Law 20/2022 for an amount lower than in 2022. At any event, this item of expenditure might change in 2023, or in subsequent years, if new public support and tax reductions for energy are extended or approved. In the medium term and in the absence of measures in the analysed time horizon, this expenditure item is estimated to fall to 1.1% of GDP in 2026.

3.2.4. Interest

AIRcF agrees with the SPU in forecasting interest at 2.9% of GDP for 2026. The forecast is for a gradual increase in interest expenditure from 2.4% of GDP in 2022 to 2.9% in 2026. This estimate takes into account expectations of inflation and financing conditions over the period. Persistent inflation continues to have an impact on interest expenditure through two different channels. On the one hand, recorded inflation has a direct impact on the entire debt portfolio linked to inflation. On the other hand, expectations of inflation and the normalisation of monetary policy are shifted to sovereign bond yields, with the consequent impact on new issues. The sensitivity is very high, given a debt portfolio that stands at 113.2% of GDP at the end of 2022. However, the average maturity of the debt is also very high, which will cushion the impact, deferring the pass-through of rate increases to the average debt rate by eight years. At the same time, the deterioration in financing conditions will gradually begin to have an impact on the evolution of the debt service, with interest and repayments that will increase. AIRcF considers that the increase in percentage of GDP would have been greater if it were not cushioned by the expected growth of nominal GDP. Nevertheless, the weight of this item is estimated to rise by 0.5 points of GDP to 2.9% of GDP in 2026.

3.2.5. Gross capital formation

AIReF forecasts that expenditure on investments without the RTRP will stand at 2.7% of GDP at the end of the period, 0.3 points higher than expected by the SPU and 0.5 points higher than before the pandemic. The path of domestic investment expenditure estimated by AIReF begins in 2023 with a weight over GDP of 2.8%, falls in 2024 to 2.6% and amounts to 2.7% in 2026. The factors that explain this evolution in 2024 are the lower expenditure due to the change in inventories as a result of unused vaccines in the CG and the end of the impact from REACT-EU funds and the 2014-2020 operational programme in the ARs. In the medium term, expenditure is driven in the CG as a result of the gradual increase in military spending associated with defence modernisation programmes to fulfil the Government's commitments to NATO, while, at the territorial level, the weight of investment in GDP remains stable until the end of the period.

3.2.6. Capital transfers

AIReF's estimate of capital transfer expenditure is 0.6% of GDP in 2026, 0.1 points higher than the 0.5% forecast in the SPU. AIReF forecasts a fall in the weight of capital transfers in 2024 compared with 2023, partly due to the lower expected expenditure on investment support at the level of the ARs as a result of the end of the REACT-EU funds and of the 2014-2020 operational programme, as well as the withdrawal of some anti-crisis measures. In addition, a reduction in other capital transfers is expected due to the absence of forecasts of possible court rulings and the materialisation of other contingent liabilities. Therefore, from a medium-term perspective, capital transfers are expected to fall to 0.6% of GDP in 2026. However, this figure may be affected by the evolution of ICO guarantee defaults or other contingencies that may materialise.

3.3. Analysis by sub-sector

AIReF forecasts a different evolution of both the deficit level and its composition by sub-sector to that presented in the SPU, although in both cases it is the Central Government that bears the greatest weight of the deficit. AIReF considers an evolution of the deficit that is less favourable for the Central Government and the Social Security Funds and more favourable for the Autonomous Regions and the Local Governments. The SPU considers that the ARs will remain in equilibrium throughout almost the entire path, despite their revenue rising in 2024 as a result of the high level of the settlement of the financing system for 2022, which they will receive in 2024. However, this distribution of the balance between sub-sectors included in the SPU could be

determined by transfers between GG sub-sectors for which there is no information. This could explain the more favourable evolution of the balance of some sub-sectors, particularly the SSFs, to the detriment of the CG.

TABLE 12. EVOLUTION OF THE DEFICIT BY SUB- SECTOR, AIREF VS SPU (% GDP)

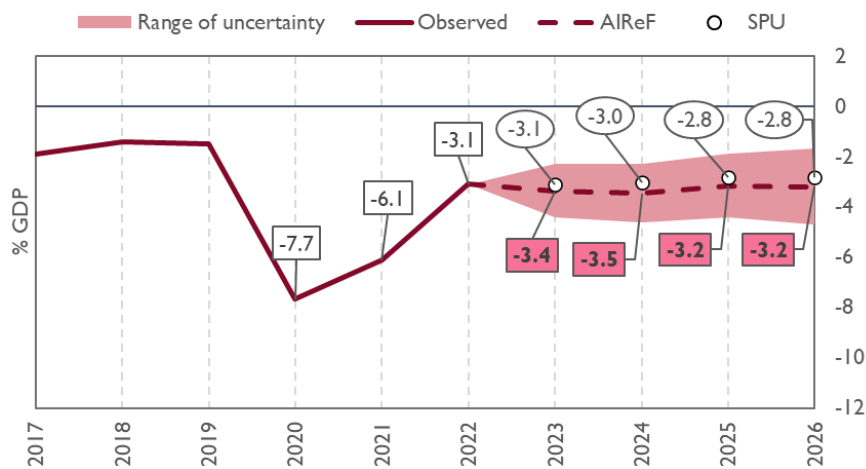
	AIReF				SPU			
	2023	2024	2025	2026	2023	2024	2025	2026
GG	-4.1	-3.0	-3.0	-3.0	-3.9	-3.0	-2.7	-2.5
CG	-3.4	-3.5	-3.2	-3.2	-3.1	-3.0	-2.8	-2.8
SSFs	-0.6	-0.3	-0.3	-0.2	-0.5	-0.2	-0.1	0.0
ARs	-0.3	0.4	0.2	0.2	-0.3	0.0	0.1	0.1
LGs	0.2	0.3	0.2	0.2	0.0	0.2	0.1	0.2

Source: SPU and AIReF

AIReF forecasts a Central Government deficit in 2026 of 3.2% of GDP, 0.4 points higher than that presented in the SPU. The CG deficit forecast in the SPU starts in 2023 being lower than that forecast by the Government in the Budgetary Plan, where it predicted a deficit of 3.3% of GDP, and also lower than the reference rate set by a resolution of the Council of Ministers for 2023 at 3.2%. However, AIReF's deficit forecast for that year is 3.4%, 0.3 points higher than that of the SPU, with the gap widening for the rest of the period to around 0.4 points of GDP.

Central Government revenue will fall by more than one point of GDP in 2026 compared with 2022 to 19.3%, while expenditure will fall by a similar amount to 22.5% of GDP, excluding the RTRP in both cases. The planned path of the CG is marked in 2023 by the prolongation of some of the measures in response to the war in Ukraine and other new measures to mitigate inflation. Particularly noteworthy for the rest of the path until 2026 are the removal of the measures to fight the crisis, the impact in 2023 and 2024 of the final positive settlements of the financing system of the Autonomous Regions and Local Governments and of the temporary levies and taxes, as well as the increase from 2023 in military expenditure to fulfil the commitment to NATO with regard to defence spending.

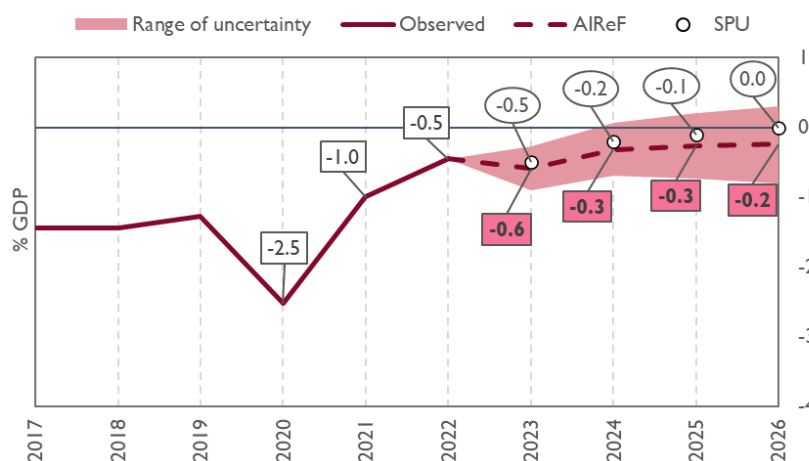
FIGURE 46. CENTRAL GOVERNMENT NET LENDING/BORROWING (% GDP)



Source: IGAE, SPU and AIReF

AIReF's estimate of the balance of the Social Security Funds (SSF) is more negative than the Government's as it considers that the deficit will end at 0.2% in 2026, compared with the budget balance estimated by the SPU. The reduction in the deficit mainly occurs in 2024 due to the dynamism of revenue, both in social contributions, driven upwards by the progressive increase in the Intergenerational Equity Mechanism contribution, and in transfers, accompanied by a stagnation in expenditure. In the remainder of the period, it continues to fall more moderately, ending at a deficit of 0.2 points in 2026. These differences in the path may have their origin in different assumptions about the evolution of transfers from the CG to the SSFs.

FIGURE 47. SOCIAL SECURITY FUNDS NET LENDING/BORROWING (% GDP)

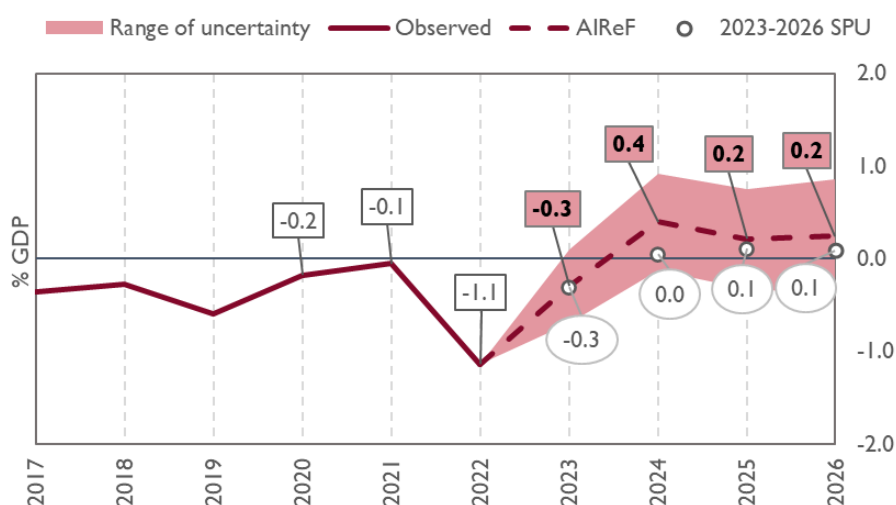


Source: IGAE, SPU and AIReF

As from 2024, the SPU sets out more pessimistic perspectives for the ARs than those considered by AIReF. The SPU forecasts in 2023 the same improvement

expected by AIReF in the balance of the ARs on the year-end 2022 figure, to reach a deficit of 0.3%, similar to the reference set for the sub-sector. According to the SPU forecast, the improvement in the balance would continue more moderately in the following years, with an estimated budgetary balance in 2024 and a surplus of 0.1 points of GDP in 2025 and 2026. AIReF, however, forecasts a more irregular profile, largely conditioned by the expected flows of the regional financing system. Under AIReF's forecasts, the balance of the sub-sector in 2024 would improve the 2023 figure by 0.7 points to reach a surplus of 0.4%, which would fall to 0.2% of GDP in 2025 and 2026. The expected improvement in 2024, replicating the situation of 2023, is essentially the result of the revenue from the regional financing system, in which significant positive settlements will be recorded from the actual collection of 2022. In 2025, revenue would grow at more moderate rates than expenditure, reducing the surplus of the previous year by 0.2 points. In 2026, the year in which a normalised evolution of the main regional revenue would return, the balance would remain below the estimated trend growth in expenditure.

FIGURE 48. NET LENDING/BORROWING ARS (% GDP)



Source: IGAE, SPU and AIReF

AIReF forecasts that the revenue of the ARs will amount to 15.8% of GDP at the end of the period. The weight of revenue over GDP in the ARs would peak in 2024 and moderate in the following years to 15.8% in 2026. These levels are highly conditioned by the evolution of the revenue of the regional financing system (RFS) and the NGEU funds. The revenue of the RFS rises by 23.9% in 2023, 14% in 2024, 2% in 2025 and 5% in 2026, once the effect of the PIT measures adopted by some ARs is incorporated. In 2023, 2024 and 2025, the ARs will receive, through the settlements of the financing system, revenue of a cyclical

nature arising from the growth in collection for 2021, 2022 and 2023 above that forecast in the GSB that served as the basis for the calculation of the interim payments. In addition, they will receive the revenue corresponding to the convergence funds, whose structural level has increased over that of previous years also as a result of the sharp increases in the State collection of partially assigned taxes. The increase in interim payments will fall over the period (although their weight over GDP increases), while the net settlement will grow significantly in 2024 and subsequently fall to a more normalised level in 2026. In the taxes and revenue associated with production, progressively lower year-on-year growth is expected over the period. The evolution of other revenue not related to the RTRP will be conditioned by the REACT-EU funds, whose execution ends in 2023, and other European funds (completion of the Operational Programme 14-20 and start of the Operational Programme 21-27).

TABLE 13. AR REVENUE FORECASTS (% GDP)

	2021	2022	2023	2024	2025	2026
Total net revenue	17.7	15.2	16.2	16.4	15.9	15.8
Net revenue without RTRP	17.6	15.1	15.6	16.0	15.7	15.7
Net RFS	9.5	8.3	9.6	10.4	10.2	10.4
<i>Net IPs</i>	8.8	8.5	8.8	9.0	9.3	9.5
<i>Net Settlement</i>	0.7	-0.2	0.8	1.4	0.9	0.8
Extraordinary fund/compensation	1.1	0.6				
Tax on Property Transfers and Stamp Duty	0.9	0.9	0.9	0.8	0.8	0.8
Inheritance and Gift Tax	0.3	0.2	0.2	0.2	0.2	0.2
Other non-RFS taxes	0.8	0.9	0.8	0.9	0.9	0.9
Other revenue	5.1	4.2	4.1	3.7	3.6	3.5

Source: IGAE and AIRcF (revenue net of payments from the RFS)

AIRcF estimates that expenditure will have a weight of 15.6% of GDP at the end of the period, consolidating a part of the expenditure generated in the pandemic. Without taking into account the expenditure associated with the RTRP, AIRcF expects a steady fall in the weight of expenditure to reach 15.5% of GDP in 2026, 0.9 points higher than the pre-pandemic level. Year-on-year growth is expected to be strongest in 2023, affected by inflationary tensions, personnel agreements and measures, and the completion of the Operational Programme 14-20, which incorporates the REACT-EU. This increase will moderate in subsequent years as the previous elements recede or disappear. It is estimated that 35% of the expenditure incurred in 2020 and 2021 as a result of the pandemic has been consolidated from 2022 onwards (excluding direct support to companies from the COVID line). This mainly affects healthcare and education (where 40% of the expenditure incurred in the pandemic is consolidated). In addition, public consumption is expected to grow year-on-year in these two areas, in line with the average of the last seven years. Under these assumptions, AIRcF's forecasts of healthcare expenditure are in line with

those of the SPU, while those of education expenditure are lower (see box 1 Recent Evolution Of Employment). AIRcF forecasts a contained evolution over the period of capital expenditure not linked to European funds, both structural and those associated with the RTRP, which is explained by the need to execute projects linked to these funds. Finally, it is considered that the return to fiscal rules will contribute to the moderation of the growth in expenditure.

TABLE 14. AR EXPENDITURE FORECASTS (% GDP)

	2021	2022	2023	2024	2025	2026
Total net expenditure	17.7	16.3	16.5	16.0	15.7	15.6
Net expenditure without RTRP	17.7	16.2	15.9	15.6	15.5	15.5
Healthcare	6.9	6.4	6.4	6.3	6.3	6.3
Education	4.2	3.9	3.9	3.9	3.9	3.9
Other expenditure	6.6	5.8	5.6	5.4	5.3	5.3

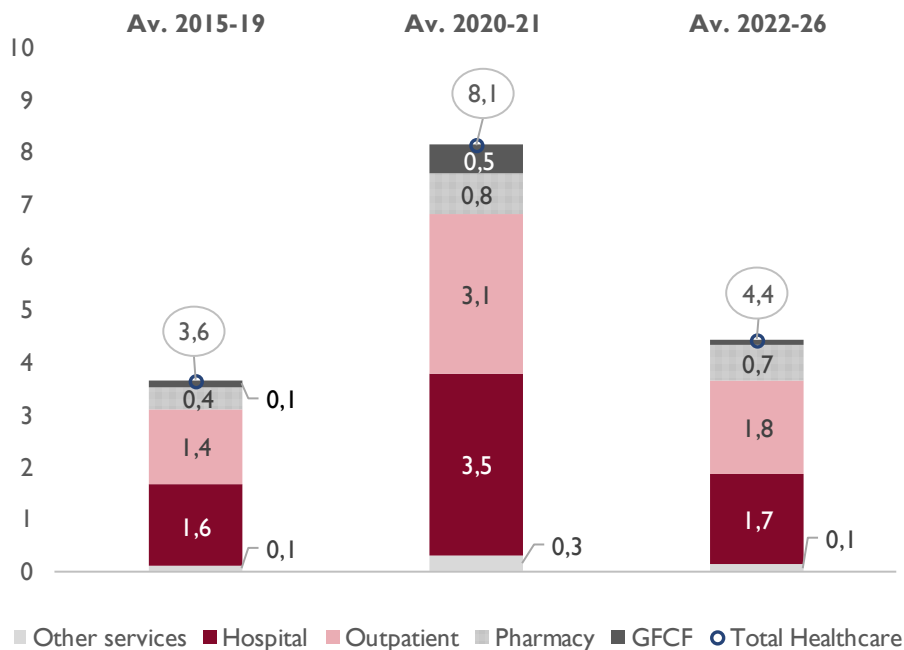
Source: IGAE and AIRcF (expenditure net of payments from the RFS)

BOX 5. HEALTHCARE AND EDUCATION SPENDING

Healthcare

AIReF estimates that 40% of the increase in healthcare expenditure resulting from COVID has been consolidated. The Covid-19 crisis led to a significant increase in healthcare spending in 2020 and 2021, particularly in current spending, concentrated in intermediate consumption, compensation of employees, and, to a lesser extent, social transfers in kind, mainly in the areas of hospital and outpatient care and pharmacy. In the period 2022-26, it is estimated that the growth of this expenditure will fall, although it will remain at higher levels than those existing before the crisis. Hospital care and outpatient services, which group together primary and specialised care, will continue to be the areas that contribute most to the growth in healthcare spending, in proportions closer to those existing in the pre-pandemic period.

FIGURE B5_1. BREAKDOWN OF GROWTH IN HEALTHCARE EXPENDITURE (%)

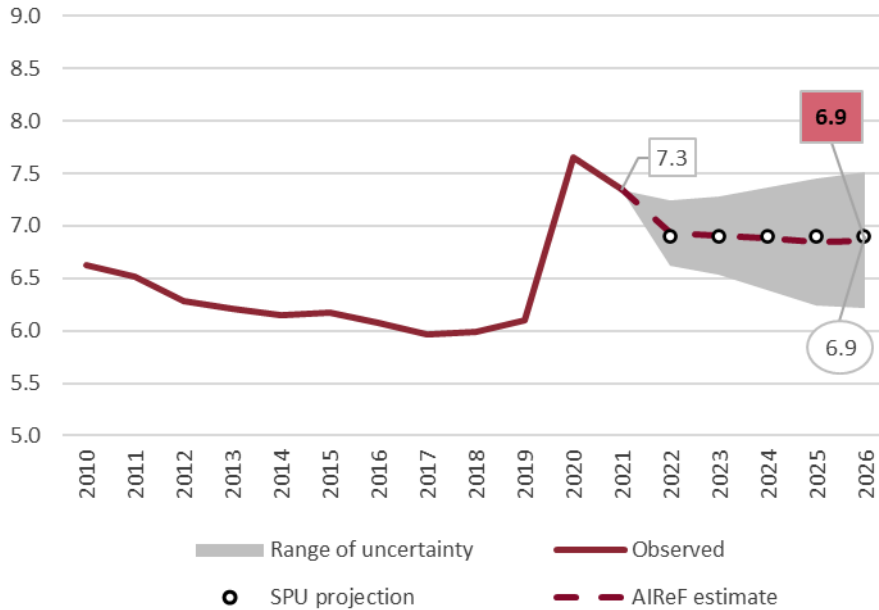


Source: COFOG classification of expenditure (IGAE) and AIReF

The SPU's forecasts on the level of healthcare spending in the period 2023-2026 are in line with those of AIReF. The SPU forecasts that in the period 22-26 healthcare expenditure will remain at 6.9% of GDP (according to the COFOG classification), 0.8 points above the 2019 level. AIReF has slightly revised downwards the estimates of medium-term healthcare expenditure contained in the Report of October 25th on the Main Budgetary Lines and

Draft Budgets of the GG for 2023 and considers that total healthcare expenditure from 2022 to 2026 will remain at 6.9% of GDP, with a slight reduction in the last two years as more moderate year-on-year growth is expected than that recorded until then in personnel, intermediate consumption and investments in this area.

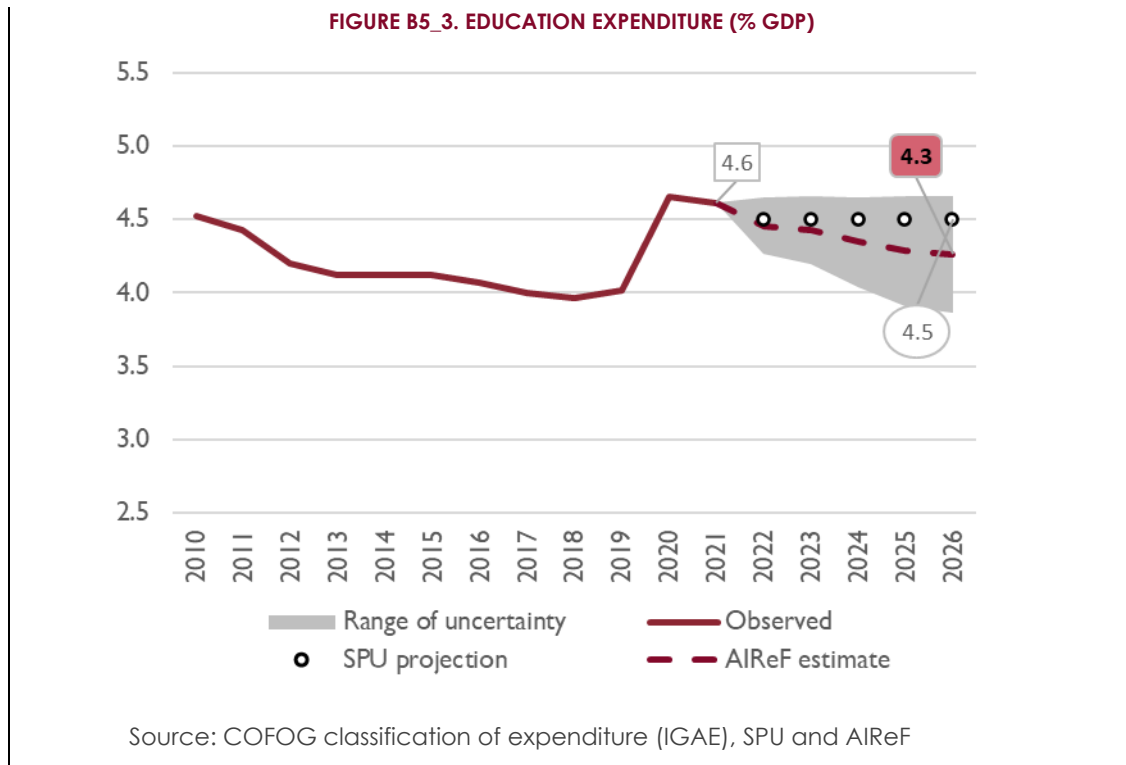
FIGURE B5_2. HEALTHCARE EXPENDITURE (% GDP)



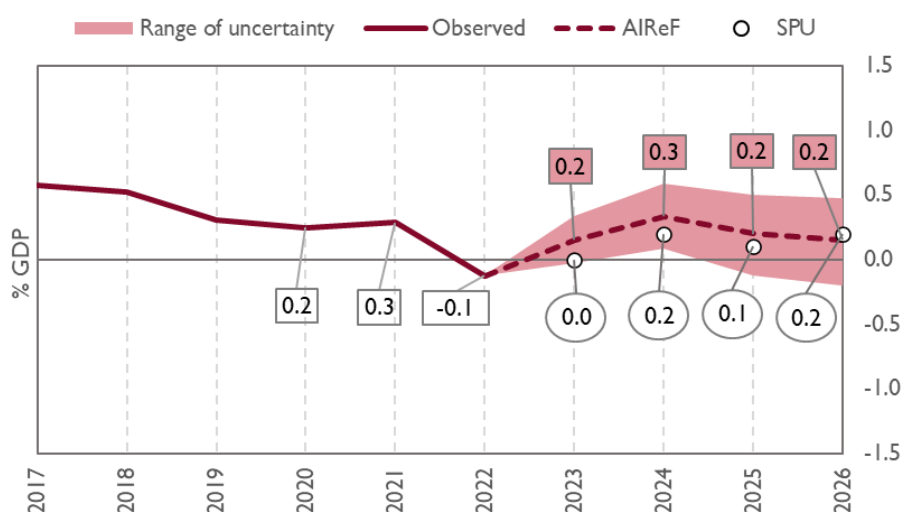
Source: COFOG classification of expenditure (IGAE), SPU and AIReF

Education

The SPU's forecasts on the growth of education spending in the period 2022-2026 are higher than those of AIReF at the end of the period. The SPU estimates that in the period 22-26 education spending will remain at 4.5% of GDP (according to the COFOG classification), 0.5 points above the 2019 level, substantially raising the medium-term forecasts of the previous programme. AIReF estimates that in 2022, 40% of the increase recorded in the pandemic has been consolidated. It forecasts that it will maintain its weight over GDP in 2023 due to the personnel agreements and measures adopted and will fall over the period, deviating from the estimates of the SPU, to reach 4.3% of GDP in 2026, 0.2 points below the level forecast in the Programme.



For the LG sub-sector, AIReF estimates a surplus of 0.2% of GDP in 2026, the same as the SPU. According to the SPU, in 2023 the LGs will recover a balanced budget, with the sub-sector moving to a surplus in the years 2024-2026. AIReF's forecasts improve by around 0.1 points of GDP the scenarios forecast by the Government in each of the years 2023 to 2025, with the forecasts converging in 2026 as both the Government and AIReF forecast a surplus of 0.2% of GDP for that year. This evolution is affected by the impact of revenue from previous years' financing system settlements, which will be very high in 2024 and in 2025, albeit to a lesser extent. The revenue from the State compensation for the negative settlement of 2020 also contributes to this improvement in the balance in 2023 and 2024. AIReF's estimates are based on a trend scenario that starts in 2023. The results of that year may change upwards or downwards, mainly as a result of the greater or lesser consolidation of expenditure executed in 2022, which will have an impact on the balances to be achieved in the following years.

FIGURE 49. NET LENDING BORROWING OF LGS (% GDP)


Source: IGAE, SPU and AIRcF

3.4. Impact of the measures on the General Government accounts

Like the Government, AIRcF only includes in its forecast the impact of measures already approved and their withdrawal on the dates legally provided. In line with the SPU approved by the Government, AIRcF considers a baseline scenario in which all the expenditure and revenue measures approved to date are included. This includes the measures adopted in response to the energy crisis caused by the current geopolitical situation, whose total impact for this year will be one point of GDP, as well as the personnel agreements and measures adopted or planned at the State and territorial level. The revenue measures considered in the 2023 Budgetary Plan are also included. The impact of these measures varies over the projection period as a result of the temporary nature of some of the legislation introduced, as well as those introduced by the ARs. Finally, the revenue measures resulting from the pension reform are included.

3.4.1. Measures in response to the energy crisis

AIRcF estimates that the total cost of the measures in response to the economic and social consequences of the Russian war will be 1% of GDP in 2023. AIRcF's assessment of the impact of the measures to combat the energy crisis resulting from the Russian war includes those set out in the six Royal Decree-Laws approved to date for this purpose, namely Royal Decree-Law 6/2022 of March 29th, Royal Decree-Law 11/2022 of June 25th, Royal Decree-Law 14/2022 of August 1st, Royal Decree-Law 17/2022 of September 20th, Royal

Decree-Law 18/2022 of October 18th and Royal Decree-Law 20/2022 of December 27th, on measures to respond to the economic and social consequences of the war in Ukraine and to support the reconstruction of the island of La Palma and other situations of vulnerability.

In terms of expenditure, the impact of the measures approved in response to the energy crisis is €7.3billion in 2023, more than 0.5 points of GDP. This is a little over half of the impact in 2022, although it would increase by almost 0.2 points of GDP if the measures are extended until December 31st. In terms of the amount, particular noteworthy are the rebate per litre of fuel for farmers and transporters, for almost €1.4bn, the discount on transport passes channelled partly as a transfer to Renfe of almost €700m, and through the territorial administrations, for almost €400m. In addition, AIReF has taken into consideration the impact for 2023 of the line of direct support for people with a low level of income, and has reduced said impact by half compared with the previous report, to €600m, following the latest information regarding the lower level of applications than expected during its time in force.

AIReF estimates that measures to mitigate the rise in energy and food prices will reduce revenue in 2023 by €6.1bn, 0.4 points of GDP. This impact would increase by 0.05 points if the reduction in the food VAT rate were to continue until the end of the year. The reduction to 5% of the VAT rate on electricity, natural gas, firewood and pellets, established up to December 31st, 2023¹⁹ will result in a reduction in revenue of about €3.1bn in national accounting terms. In addition, the reduction in the VAT rate from 4% to 0% for all basic foodstuffs and from 10% to 5% for olive and seed oils and pasta, established from January 1st, 2023 and effective until June 30th, 2023, is estimated at about €800m. For its part, the reduction to 0.05% of the rate of the Special Tax on Electricity, also established until December 31st, 2023, will reduce revenue by €2.2bn, with a very small part of its effect extending to 2024 as the collection of the last month corresponding to the previous year is recorded in 2024.

The estimated impact of the loss of revenue from the suspension of the Tax on the Value of Electricity Production is about €2.9bn in 2023 and about €900m in 2024. The current suspension applies until December 31st, 2023, with its effect extending until 2024 as the last quarter of 2023 would be paid in the first quarter of 2024. In terms of deficit, the impact is limited to the amount of the planned

¹⁹ RDL 20/2022

transfer to the electricity system in the GSB, of €1.15bn²⁰, and the rest of the loss of collection results in a reduction in said transfer.

²⁰ This impact is reflected in the expenditure measures within the sectoral support.

TABLE 15. IMPACT OF THE CG MEASURES ADOPTED IN RESPONSE TO THE ECONOMIC AND SOCIAL CONSEQUENCES OF THE WAR IN UKRAINE

Impact in National Accounting terms (€m)	AIReF estimate	
	2023	2024
Revenue Measures	-6.142	-178
VAT:		
VAT on electricity Reduction of electricity rate to 10% (RDL 12, 17 & 29/2021 & 6/2022) Reduction to 5% since July 2022 (RDL 11/2022) Extension until December 31st, 2023 (RDL 20/2022)	-2.349	
VAT on gas, briquettes and pellets Reduction to 5% gas rate (RDL 17/2022) Extension until December 31st, 2023 (RDL 20/2022)	-796	
VAT on foodstuffs Reduction from 4% to 0% on basic foodstuffs (RDL 20/2022) (Until June 30th, 2023)	-643	
Reduction from 10% to 5% on oils and pasta (RDL 20/2022) (Until June 30th, 2023)	-139	
STs		
Electricity ST Electricity rate reduction (RDL 17, 29/2021 & 6, 11/2022) Extension until December 31st, 2023 (RDL 20/2022)	-2.215	-178
	2023	2024
Expenditure Measures	7.331	6
Fuel allowance	1.347	
Sectoral support	2.688	6
Direct support for individuals	600	
Other support for individuals	2.396	
Support for refugees	300	
TOTAL	-13.473	-184
TOTAL (% GDP)	-1,0	0,0
Other		
Tax on the Value of Electricity Production: Suspension (RDL 12, 17, 29/2021 & 6/2022) Extension to December 31st, 2023 (RDL 20/2022)	-2.933	-889

Source: AIReF

3.4.2. Other revenue measures of the Central Government

In tax matters, AIReF estimates that in 2023 and 2024 the legislative measures will temporarily increase revenue by 0.2 points and 0.3 points, respectively,

with a fall of 0.1 points from 2025. AIRcF's revenue forecasts include, among others, the assessment of the measures established in the 2022 and 2023 General State Budget and the temporary taxes established in Law 38/2022 (temporary energy and financial levies and the Solidarity Tax on Large Fortunes). Although it specifies the incorporation of these measures into its scenario, the SPU does not include a detailed quantification of their effects over the period 2023-2026. AIRcF also considers the reductions on PIT for agricultural and livestock activities established in Order HFP/405/2023 of April 18th.

The tax measures adopted in the 2023 General State Budget will reduce revenue by 0.1 points of GDP from 2024. In 2023, the positive impact of the measures incorporated in the 2022 General State Budget and the entry into force of the new Tax on Single-Use Plastics are offset by the negative effect of the tax reductions introduced in the 2023 Budget, the total effect of which will be felt from 2024 as this is a year in which the PIT returns relating to 2023 will be filed. The measures with a positive effect include the establishment of the minimum rate of 15% for Corporate Income Tax and the reduction in the contribution limit of pension plans in PIT, introduced in the 22GSB, which will be reflected for the first time in the returns filed in 2023 relating to 2022. In the opposite direction, the measures with a negative effect includes the increase in the reduction in income from work, the minimum taxation and the reduction for deductible expenses, together with the reductions in the income from modules and the extension of the maternity deduction approved for PIT in the 23GSB, as well as the reductions in the net income indices and the general reduction applicable in the method of objective estimation of PIT included in Order HFP/405/2023 of April 18th.

TABLE 16. OTHER CENTRAL GOVERNMENT REVENUE MEASURES IN CASH TERMS

Revenue measures in cash terms: AIRcF estimate									
Total annual impact									
Measure	Source	2023		2024		2025		2026	
		€m	% GDP	€m	% GDP	€m	% GDP	€m	% GDP
Structural revenue measures		-399	0.0	-1,310	-0.1	-1,286	-0.1	-1,266	-0.1
PIT		-1,320	-0.1	-1,986	-0.1	-1,986	-0.1	-1,986	-0.1
Reduction of the contribution limit to pension plans from 2,000 to 1,500.	22GSB	149	0.0	149	0.0	149	0.0	149	0.0
Increase in taxation on capital income	23GSB	0	0.0	204	0.0	204	0.0	204	0.0
Increase in reduction of work income and minimum taxation.	23GSB	-1,247	-0.1	-1,881	-0.1	-1,881	-0.1	-1,881	-0.1
Reduction in modules income and increase in reduction in ded.	23GSB	0	0.0	-184	0.0	-184	0.0	-184	0.0
Extension of the maternity tax credit	23DBP	-222	0.0	-274	0.0	-274	0.0	-274	0.0
Corporate Income Tax		421	0.0	129	0.0	129	0.0	129	0.0
Establishment of a minimum rate of 15% of the taxable income.	22GSB	400	0.0	400	0.0	400	0.0	400	0.0
Reduction to 40% of allowance under housing rental regime	22GSB	21	0.0	21	0.0	21	0.0	21	0.0
Reduction in the rate for small businesses	23GSB	0	0.0	-292	0.0	-292	0.0	-292	0.0
VAT		-24	0.0	-24	0.0	-24	0.0	-24	0.0
Reduction rate to 5% on female hygiene products	23GSB	-24	0.0	-24	0.0	-24	0.0	-24	0.0
OTHER		524	0.0	571	0.0	595	0.0	615	0.0
Tax on Single-Use Plastics:	Law 7/2022	524	0.04	571	0.04	595	0.04	615	0.04
Temporary revenue measures		3,659	0.3	5,783	0.4	-249	0.0	-249	0.0
PIT		-128	0.0	-5	0.0	-5	0.0	-5	0.0
Deductions for housing rehabilitation.	RDL 19/2021	-5	0.0	-5	0.0	-5	0.0	-5	0.0
Reduction in agricultural and livestock objective estimation return	Orden HFP/405/2023	-123	0.0	0	0.0	0	0.0	0	0.0
CIT		244	0.0	2,195	0.1	-244	0.0	-244	0.0
Limitation on offsetting losses in consolidated groups.	23GSB	244	0.0	2,195	0.1	-244	0.0	-244	0.0
OTHER		3,543	0.2	3,593	0.2	0	0.0	0	0.0
Temporary Levy Financial Institutions	In process	1,274	0.1	1274.0	0.1	0	0.0	0	0.0
Temporary Levy Energy Companies	In process	1,634	0.1	1634.0	0.1	0	0.0	0	0.0
Solidarity Tax on Large Fortunes	In process	635	0.0	685.0	0.0	0	0.0	0	0.0
TOTAL		3,259	0.2	4,473	0.3	-1,535	-0.1	-1,515	-0.1

Source: Government and AIRcF estimates

3.4.3. Measures taken by the Social Security Funds

The reforms of the pension system approved between 2021 and 2023 begin to display their effects during the SPU forecast horizon. The revenue-boosting measures start to have an impact in the SPU horizon, while the expenditure-saving measures have a longer-term impact due to the establishment of transitional periods in the regulation.

The reform includes a new incentive scheme to delay the effective retirement age that seems to be already influencing agents' decisions. On the one hand, the coefficients applicable to early retirement are revised. On the other hand, the delayed retirement bonus is increased and equalised, and the option of receiving a lump-sum payment is also offered. Under AIReF's assumptions, the impact would be zero in GDP points until 2026, and a reduction in expenditure of €340m in 2026. The assumption underlying this simulation is that 30% of workers will decide to delay their retirement (for a more detailed description, see Opinion on the Long-Term Sustainability of the General Government). The most recent data of retirement registrations by age show some shift towards higher retirement ages, which could corroborate this hypothesis. However, continuous monitoring will have to be carried out as time elapses, together with an in-depth analysis when sufficient data are available.

The reform of the calculation period for determining the initial pension has a limited impact since it does not enter into force until 2026. This reform establishes that as from 2043, the calculation will consider the last 29 years of working life for determining the regulatory base of the retirement pension, of which the worst 24 months will be excluded. Between 2026 and 2040, there will be a dual system in which new pensioners will have access to the most favourable regulatory base between the new system and the previous system, where the regulatory base was calculated from the last 25 years of working life. Since this measure begins to deploy its effects in 2026, the impact during the forecast horizon of the SPU is very limited.

The elimination of the sustainability factor has no perceptible impact in the period 2023-2026, while the increase in line with the CPI was already included in AIReF's previous forecasts. The sustainability factor was a mechanism that adjusted the initial pension with the evolution of life expectancy that would have entered into force in 2023 and would have resulted in expenditure of around €100m in 2026. The increase in pensions in line with the CPI of the previous year instead of the PRI, which in any case had not been applied since 2018, results in an increase in expenditure that rises from 1.1 points of GDP in 2023 to 1.8 in 2026. This increase is amplified by the high inflation of 2022, at 8.5%, with an impact on the increase in pensions in 2023.

On the revenue side, the Intergenerational Equity Mechanism will have a cumulative impact of 0.3 points of GDP. The IEM is a special-purpose social contribution that enters into force in 2023 and progressively rises from 0.6 points in that year to 0.9 points in 2026 and 1.2 points in 2029, after which it remains at that level. The impact is an increase in revenue of 0.2 points of GDP in 2023 and 2024, and 0.3 points in 2025 and 2026.

Both the 23GSB and the pension reform establish a path of growth of the maximum contribution bases that is more generous than in the past, which AIReF estimates will raise revenue by an additional 0.1 points in 2026. The 23GSB establishes an increase in maximum contribution bases of 8.5%. In addition, the new regulation sets a path for raising the maximum contribution bases as from 2024 in line with the CPI plus an annual fixed amount of 1.2 pp. This evolution of the maximum contribution bases generates an increase in revenue of 0.1 points of GDP between 2023 and 2026 - equivalent to €1.7bn in 2026. The reform also provides for a new contribution system for self-employed workers based on their real income. However, during the transitional period up to 2025, it has a neutral effect on revenue. From 2025, a new stage of the transition period must be designed, whose characteristics are unknown. Therefore, the neutral effect is maintained throughout the forecast period.

Finally, the 2023 reform includes a new additional contribution on income from work that exceeds the maximum contribution base - the “solidarity contribution”. This additional contribution will gradually increase between 2025 and 2045, and has a limited impact on the forecast horizon of the SPU - with collected revenue of €139m in 2025 and €278m in 2026.

TABLE 17. IMPACT OF THE REVENUE MEASURES OF THE PENSION REFORM

Social Security revenue measures								
Measure	2023		2024		2025		2026	
	€m	% GDP	€m	% GDP	€m	% GDP	€m	% GDP
Intergenerational Equity Mechanism	2.891	0,2	3.594	0,2	4.300	0,3	5.003	0,3
Reform of self-employed contributions	0	0,0	0	0,0	0	0,0	0	0,0
Evolution of maximum contribution bases	800	0,1	1.205	0,1	1.486	0,1	1.711	0,1
Solidarity contribution	0	0,0	0	0,0	139	0,0	278	0,0
TOTAL	3.691	0,3	4.799	0,3	5.925	0,4	6.992	0,4

Source: AIReF

The impact in 2050 of these revenue-side measures would amount to 1.1 points of GDP according to AIReF²¹, lower than the 1.7 estimated by the Government in the SPU. The SPU describes the measures of the pension reform and sets out the path of public expenditure on pensions after the reform. However, it does not break down the impact of these measures on expenditure. Public expenditure on pensions, according to the SPU, rises between 2022 and 2050 to reach 14.7%, compared with the 16.2% of the long-term projections published by AIReF in March. The average for the period 2022-2050 is 14% of GDP according to the SPU, compared with the 15.1% of AIReF.

3.4.4. Measures taken at a regional level

At a regional level, the main expenditure measures affect compensation of employees. The measures planned by the ARs in relation to staff will have an impact of close to €700m in 2023 and additional impacts of around €300m, €150m and €50m in the following years. The measures focus on the review of career supplements and specific or productivity supplements, especially in the field of education, and, to a lesser extent, healthcare; the reduction of ratios in education or reduction of teaching hours of teachers; the higher estimated cost in social contributions of education staff who move from MUFACE to the Social Security; and compensation for the elimination of temporary staff, although the last aspect is temporary in nature.

The revenue measures adopted by the ARs, which are tax cuts as a whole, mainly affect PIT and will have their main impact on the regional accounts from 2024 onwards. Based on the information provided by the ARs, it is estimated that the negative net impact on the regional accounts due to the PIT measures adopted since 2021 would be around €500m in 2023, €2.7bn in 2024 and close to €2bn in 2025 and 2026. The tax reductions approved in Andalusia, Galicia and Murcia on the Wealth Tax, offset in part by revenue-raising measures in Catalonia, would have an impact of around €150m. The lower net revenue resulting from the measures relating to Inheritance and Gift Tax (reduction in Andalusia, Madrid, Aragon and Galicia; increase in Catalonia) is estimated at just under €100m. In the field of environmental taxation, the ARs have approved temporary and permanent measures that have a net negative impact in the first few years and a positive impact in the

²¹ <https://www.airef.es/es/centro-documental/opinion-sobre-la-sostenibilidad-de-las-administraciones-publicas-a-largo-plazo-la-incidencia-de-la-demografia/>

following years. Navarre has adopted temporary measures in relation to VAT, the Tax on the Value of Electricity Production and the Tax on Electricity equivalent to those approved at the State level to combat the effects of the energy crisis.

TABLE 18. ESTIMATED IMPACT OF THE TAX MEASURES OF THE ARS

Tax measures of the ARs								
Taxes	2023		2024		2025		2026	
	€m	% GDP	€m	% GDP	€m	% GDP	€m	% GDP
Personal Income Tax (IRPF)	-521	0.0	-2,675	-0.2	-2,082	-0.1	-2,043	-0.1
Inheritance and Gift Tax	-46	0.0	-97	0.0	-94	0.0	-97	0.0
Tax on Wealth	-125	0.0	-168	0.0	-157	0.0	-157	0.0
Transfer Tax and Stamp Duty	18	0.0	11	0.0	11	0.0	11	0.0
VAT and STs (Navarre)	-113	0.0	0	0.0	0	0.0	0	0.0
Other	-61	0.0	-85	0.0	12	0.0	83	0.0
TOTAL	-847	-0.1	-3,014	-0.2	-2,310	-0.1	-2,203	-0.1

4. FISCAL RISKS

AIReF recommended that the Government include more complete and detailed information on fiscal risks in the 2023-2026 SPU and incorporate measures for contingency scenarios. Given that the SPU is Spain's medium-term budget planning document, AIReF considers that it is the appropriate time for setting out a realistic and credible medium-term fiscal strategy that guarantees the sustainability of public finances. For this purpose, on April 5th in the Report on the Initial Budgets of the General Government for 2023, AIReF recommended that the Government, among other aspects, incorporate a complete section on fiscal risks that, should they occur, may affect the deficit or debt. This section should include potential measures in response to contingent scenarios, explaining their impact, the assumptions under which their implementation would occur and the duration of the measures and include more complete and detailed information on fiscal risks that, should they occur, may affect the deficit or debt.

However, as in previous years, the SPU does not include sufficient information on the fiscal risks that may affect its 2023-2026 time horizon. Section 4.2 of the SPU on contingent liabilities is limited to including the outstanding balance of the guarantees granted by the GG up to 2022. Therefore, the SPU does not report on whether the Government estimates a revision of the amount of defaults already recorded in 2021 and 2022 (standardised guarantees) as a result of the ICO guarantees linked to COVID or the war in Ukraine for the period 2023-2026. This would imply further allocations to the deficit to the

extent that the actual amount of defaults exceeds the amount already recorded. Neither does it include information on other possible liabilities the GG may face resulting from outstanding litigation, judicial appeals and court rulings, information on public-private partnerships, unpaid loans or any other type of risk that may affect the deficit and/or debt over the SPU's time horizon.

In addition, the SPU does not envisage measures during the period to which it refers to address the materialisation of risks, mainly resulting from persistent inflation. The uncertainty characterising the current situation requires the capacity to adapt economic policy to the possible materialisation of risks, mainly those arising from the persistence of inflation and the energy crisis, in an uncertain geopolitical context due to the continuation of the war in Ukraine. Similarly, inflation, which is largely associated with the above factors, also has an impact on the public accounts. This is distinctly positive in the short term because of its direct and automatic impact on revenue and negative in the medium term because of its less direct and lagged impact on expenditure. Inflation has an automatic impact on pension expenditure with a one-year lag and also a more or less automatic impact on other expenditure, such as compensation of employees, investment and intermediate consumption. In addition, the tightening of monetary conditions feeds through to servicing debt.

The persistence of the energy crisis could lead to an extension of the approved measures, which would raise the deficit in 2023 by 0.05 points of GDP due to the revenue measures, and by a further 0.2 points of GDP due to the expenditure measures. Some measures approved to date, such as the reduction in VAT and the STs on Electricity will remain in force until the end of the year, as stated in the SPU and AIRcF's central scenario. However, the measures relating to food VAT have only been approved until June 30th. If food inflation persists, this measure could be extended, at an estimated cost of 0.05 points of GDP. In addition, AIRcF estimates that an extension of the expenditure measures until the end of the year would have a cost of 0.2 points of GDP. Moreover, the drought situation may lead to the approval of new packages of measures that would raise the deficit estimate for 2023.

In addition, there are other uncertainties about the macroeconomic scenario that endanger the materialisation of the projected fiscal scenario. Uncertainty around the medium-term macroeconomic scenario underpinning the 2023-2026 deficit forecasts remains high. The continuation of the war in Ukraine, the tensions towards greater fragmentation of trade and global investment flows, the tightening of financing conditions and persistent high inflation rates project downside risks on the growth scenario. All these elements remain key in the evolution of certain variables such as employment, wages, private consumption and gross operating surplus, which will affect the final path of tax

revenue and contributions, as well as unemployment and interest expenditure, with an impact on the projected fiscal scenario up to 2026.

In addition to the fiscal risks originating in the macroeconomic scenario, there are risks related to the enforcement of court rulings. According to the latest information published in the General State Accounts for 2021, the risk of greater compensation to the concessionaire ACESA continues, which could amount to €3bn in addition to the compensation paid by the State in 2021 given the discrepancies about the final amount claimed. Furthermore, the dispute over renewable energies remains open and, although appeals are being lodged against the arbitration decisions, the amount awarded in the unfavourable decisions for Spain total around €1.18bn. Therefore, the risk remains in force and could affect the accounts for the coming years.

Lastly, there are other risks whose amount is repeatedly unknown and no information is provided, especially on investments in defence modernisation programmes. Investments in defence modernisation programmes are underway and involve a significant volume of expenditure with a major impact on the deficit. In addition, the amount of defence spending is now more significant because of the Government's commitment to NATO to raise military spending to 2% of GDP in 2029. Neither is there any information on the possible impact of the risks assumed by public-private partnership contracts or loans granted by the General Government that might prove to be doubtful receivables.

5. FISCAL POLICY STANCE

The Country Specific Recommendations adopted in June last year (CSRs) set a quantitative reference for fiscal policy in 2023 for high-debt countries, such as Spain²². Specifically, the recommendation for Spain stated that the increase in nationally financed primary current expenditure should be below medium-term potential growth. This should be done taking into account the temporary and specific aid in favour of the households and companies most vulnerable to the rises in energy prices and the refugees caused by the war in Ukraine.

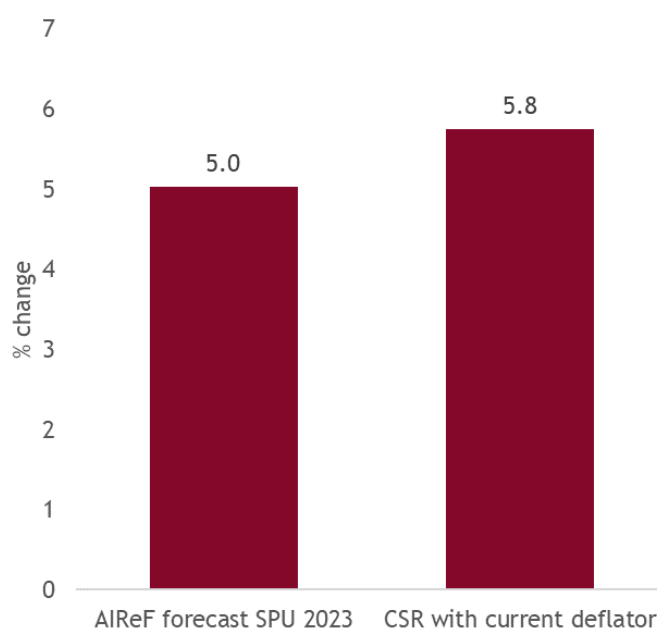
Compliance with this CSR depends on the quantitative limit used as a reference to assess the expected increase in primary current expenditure net of revenue measures. In the current circumstances of high price volatility, it has been argued that the most recent forecast of the GDP deflator needs to be taken as price pressures can also feed through to public expenditure and

²² See Council Recommendation on the 2022 National Reform Programme of Spain and delivering a Council opinion on the 2022 Stability Programme of Spain. <https://data.consilium.europa.eu/doc/document/ST-9754-2022-INIT/es/pdf>

revenue²³. According to AIReF's estimates, the medium-term nominal potential growth rate is 5.8%.²⁴

For the GG as a whole, AIReF forecasts 5.1% growth in primary current expenditure net of revenue measures and cyclical unemployment expenditure in 2023 with the measures adopted to date. This rate of change would therefore be below the quantitative reference estimated by AIReF for the evaluation of the fiscal CSR.

FIGURE 50. CHANGE IN NATIONALLY FINANCED PRIMARY CURRENT EXPENDITURE, NET OF REVENUE MEASURES AND CYCLICAL UNEMPLOYMENT EXPENDITURE IN 2023. COMPARISON WITH FISCAL CSR, GG



Source: AIReF and 2023-2026 Stability Programme Update

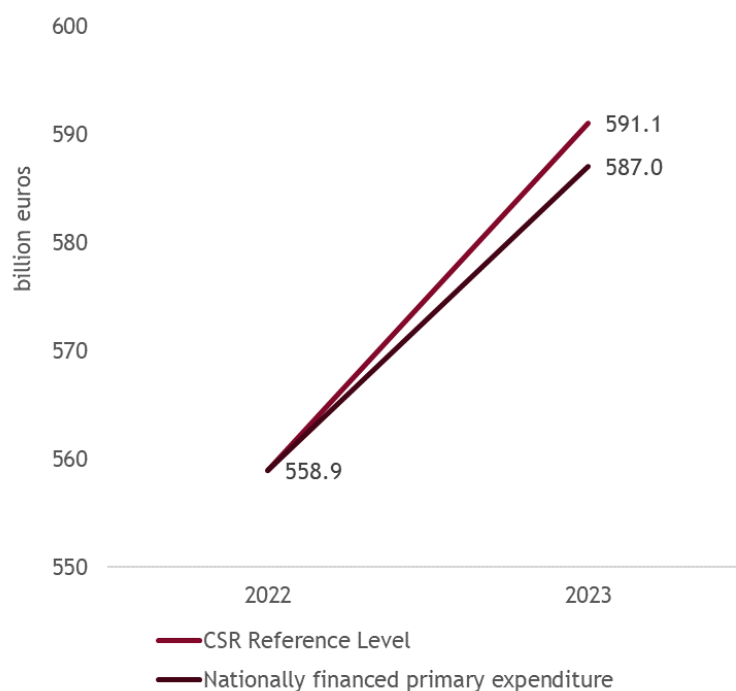
Nationally financed primary current expenditure net of revenue measures and cyclical unemployment expenditure in 2023 would stand at a level of around €4bn lower than the maximum compatible with the fiscal CSR. Therefore, the

²³ The Commission carried out the *ex ante* assessment of compliance with the fiscal CSR in its analysis of the Draft Budgetary Plans in its last autumn package. See "COMMISSION STAFF WORKING DOCUMENT Fiscal Statistical Tables providing relevant background data for the assessment of the 2023 Draft Budgetary Plans". The choice of the most recent forecast deviates from past practice whereby the European Commission took the contemporary deflator forecast at the time the CSRs were adopted (i.e. in this case the forecast in June 2022) to establish the nominal medium-term potential rate.

²⁴ With a GDP deflator forecast of 4.8% in 2023 and real GDP growth in the medium term approximated from the ten-year average centred on 2023 (1%).

margin for adopting additional measures in the remainder of the year or for extending some of the measures beyond their current period of validity would in principle be limited to this amount.

FIGURE 51. LEVEL OF NATIONALLY FINANCED PRIMARY CURRENT EXPENDITURE, NET OF REVENUE MEASURES AND CYCLICAL UNEMPLOYMENT EXPENDITURE IN 2023. COMPARISON WITH FISCAL CSR, GG



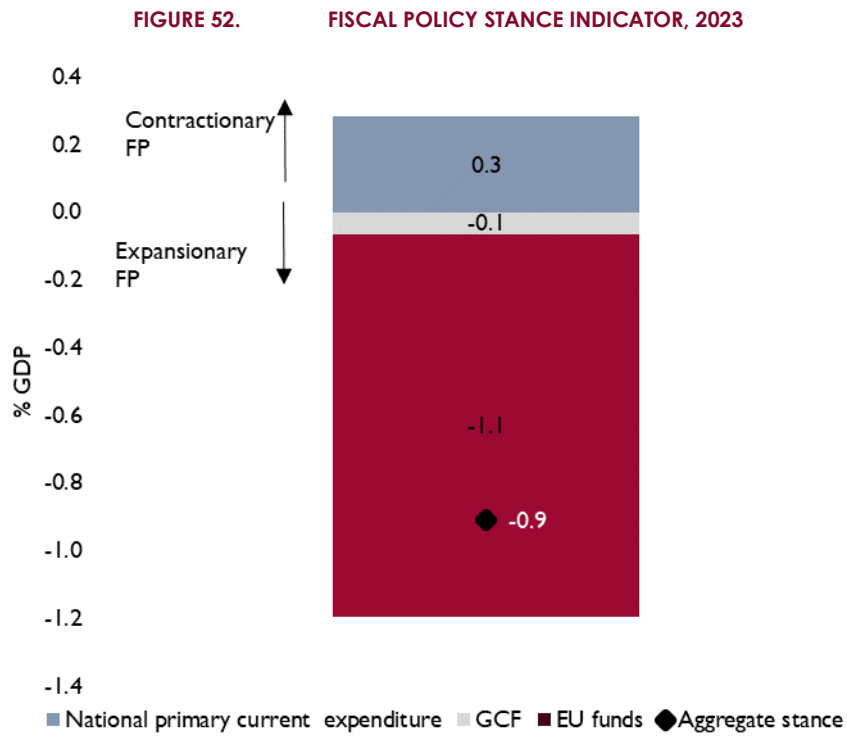
Source: AIRcF and 2023-2026 Stability Programme Update

From a macroeconomic point of view, it is important to analyse the aggregate fiscal policy stance including investment spending and Next Generation EU (NGEU) funds, both excluded from the fiscal CSR. The boost that fiscal policy as a whole would be providing to economic activity this year should be estimated to include these two components.

The contribution of fiscal policy to economic activity will be expansionary in 2023. The fiscal policy stance indicator²⁵ points to an expansion of 0.9 GDP points in 2023. AIRcF's current forecast incorporates an increase in expenditure charged to NGEU funds of around €16bn in 2023. Should this materialise, the boost will determine the aggregate fiscal policy stance, strengthened by a small contribution from domestic investment to the expansionary stance. In

²⁵ For further details on the calculation of this indicator, see page 3 of the document "Commission Staff Working Document Fiscal Statistical Tables providing relevant background data for the assessment of the 2023 Draft Budgetary Plans" Brussels, 22.11.2022, SWD(2022) 950 final.

contrast, nationally financed primary current expenditure would contribute to the aggregate stance a contraction of 0.3 points of GDP in the absence of new measures and/or extension of the current measures beyond the period provided for in current legislation.



***Note:** a negative sign represents an expansive fiscal policy and vice versa

Source: AIRcF and 2023-2026 Stability Programme Update

BOX 6. MEASURES PLANNED IN 2023 TO MITIGATE THE IMPACT OF INFLATION AND THE ENERGY CRISIS. DEGREE OF TARGETING TOWARDS THE MOST VULNERABLE HOUSEHOLDS.

AIReF analysed the degree to which the measures taken by the Government to mitigate the impact of inflation and the energy crisis have been targeted towards vulnerable households in its October 2022 report²⁶. Although, on the whole, the package of measures was somewhat targeted towards the most vulnerable, a significant part of the cost of some of the measures analysed benefited higher-income households, which were more able to adapt to price increases. The most noteworthy example, due to its budgetary impact, was the fuel consumption rebate.

Since December, the Government has revised the package of measures. It is therefore appropriate to update the analysis from last October, without prejudice to the current estimate suggesting that in 2023 the change in primary expenditure net of revenue measures would be below the reference of the Country Specific Recommendation (CSR) applicable to Spain.

The revision of the measures has been based on the moderation of energy prices and the persistence of inflation in goods such as food, raw materials and intermediate goods. As a result, this update of the analysis excludes the 15-cent fuel subsidy for individuals and the supplement to university scholarships, which have not been continued after the revisions. In contrast, new measures have been introduced such as the temporary reduction of VAT on certain foodstuffs and exceptional tax reductions in the PIT of crop and livestock farmers. Finally, given that the CSR only refers to temporary and targeted support measures, those that were initially based on the inflationary situation but have now acquired a structural nature have been excluded from the analysis. These include the 15% increase in the amount of the MIS and non-contributory pensions, the Thermal Social Voucher and the increase in the reduction in income from work from 14,000 to 15,000 euros. In summary, the analysis presented below includes the measures highlighted in green in the attached table.

²⁶ [Reports on the Main Lines of the Budget of the General Government.](#)

TABLE B6_1. TEMPORARY MEASURES TO MITIGATE THE EFFECTS OF INFLATION

TEMPORARY MEASURES TARGETED AT HOUSEHOLDS WITH THE HIGHEST BUDGETARY IMPACT TO MITIGATE THE EFFECTS OF INFLATION	In force in 2023
Reduction of VAT on electricity from 21% to 5%	✓
Reduction to 0.5% of the Special Tax on Electricity	✓
Reduction of VAT on gas from 21% to 5%	✓
Tariff of Last Resort (TUR) for gas	✓
Strengthening of Thermal Social Voucher	Permanent
Discount of 20 cts. or 15 cts. per litre of fuel	✗
15% increase in the amount of the Minimum Income Scheme (MIS)	Permanent
15% increase in non-contributory pensions (NCPS)	Permanent
€200 support to vulnerable households	✓
Supplement of €100 per month to the amount of scholarships	✗
Free transport in commuter trains, rebate for middle-distance and metropolitan transport	✓
Extension of the reduction in return on work	Permanent
Reduction of VAT on basic foodstuffs from 4% to 0% and on oil and pasta from 10% to 5%	New
Tax reductions PIT crop and livestock farmers	New

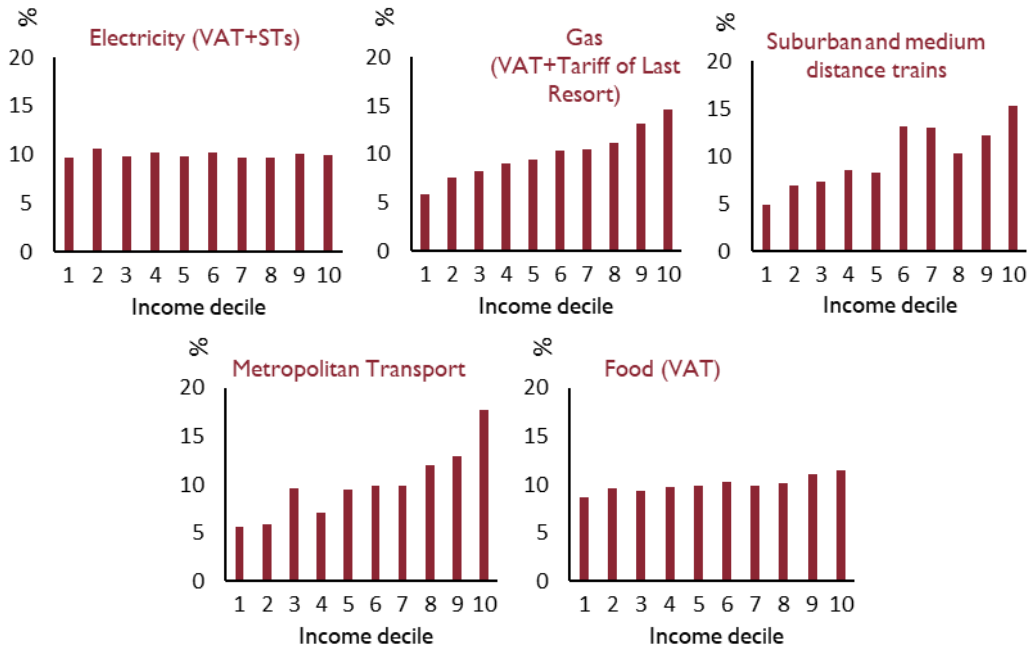
As already noted in the previous report, the cost of the measures analysed that act on prices is not generally targeted towards low-income households. For example, the cost of the reduction of VAT or taxes on electricity is evenly distributed by income level, while the reduction of VAT on gas or the public transport rebate is absorbed to a greater extent by higher-income individuals. The new measure to reduce VAT on food is at an intermediate position, with an even cost distribution among middle-income households, but higher in higher-income households compared with low-income households.

These examples clearly demonstrate that the targeting of measures affecting prices depends on the importance that each of the products has in the consumption basket of households at different income levels. AIRcF has included a tool²⁷ on its website which, based on the microdata from the INE Household Budget Survey, provides information on the degree of targeting of the VAT reduction on a wide range of goods and services and their possible combinations. This tool illustrates the heterogeneity of the measures affecting the price, with those that affect goods whose

[VAT change targeting tool²⁷](#)

consumption is concentrated among low-income households being more targeted and those that affect goods mainly consumed by higher-income households being less targeted.

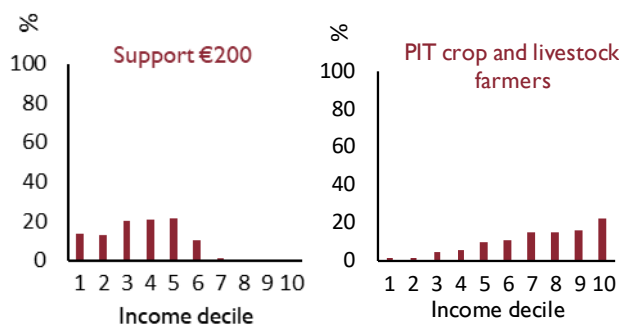
FIGURE B6_1. DISTRIBUTION OF THE COST OF THE MEASURES THAT ACT ON THE PRICE OF ENERGY, TRANSPORT AND FOOD BY INCOME DECILE



Source: Prepared by AIReF based on Family Budget Survey, INE

Measures linked to income level, such as the support of €200 for people with a low level of income, are of a targeted nature by their design and, in this case, concentrate their cost in middle–low income households. For their part, tax reductions for crop and livestock farmers mainly benefit middle and high-income households

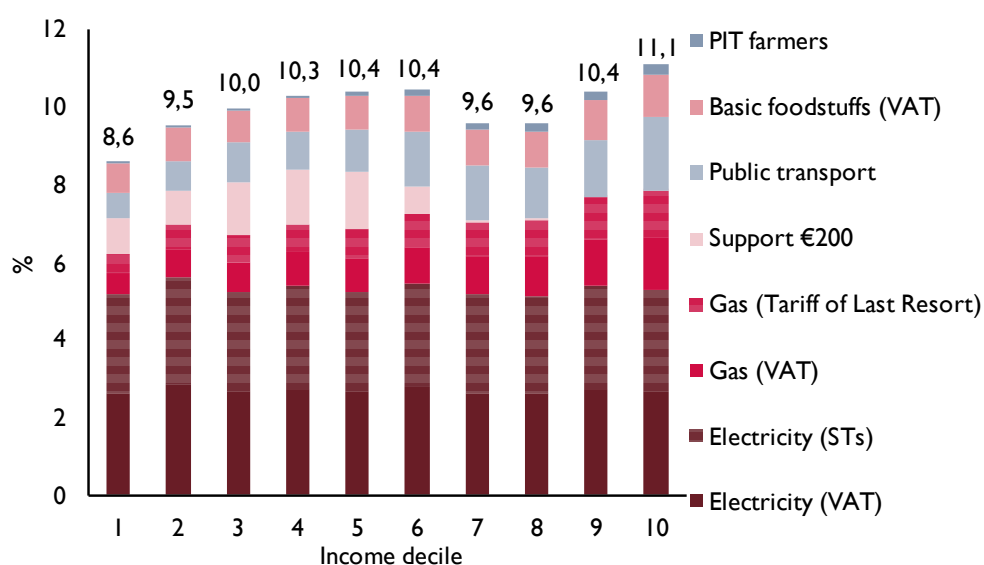
FIGURE B6_2. DISTRIBUTION OF THE COST OF THE MEASURES AIMED AT OFFSETTING THE LOSS OF REAL INCOME BY INCOME DECILE



Source: Prepared by AIReF based on the Household, Income and Wealth Panel 2016/ 2019 (IEF)

Taken together, considering all the measures analysed weighted by their budgetary importance, it can be seen that the package is not targeted towards the most vulnerable, since households in the higher income deciles absorb a significant part of the cost of the measures. The protection of low-income households has come through measures that have become structural, such as the increase in the amounts of the MIS, non-contributory pensions and the Thermal Social Voucher.

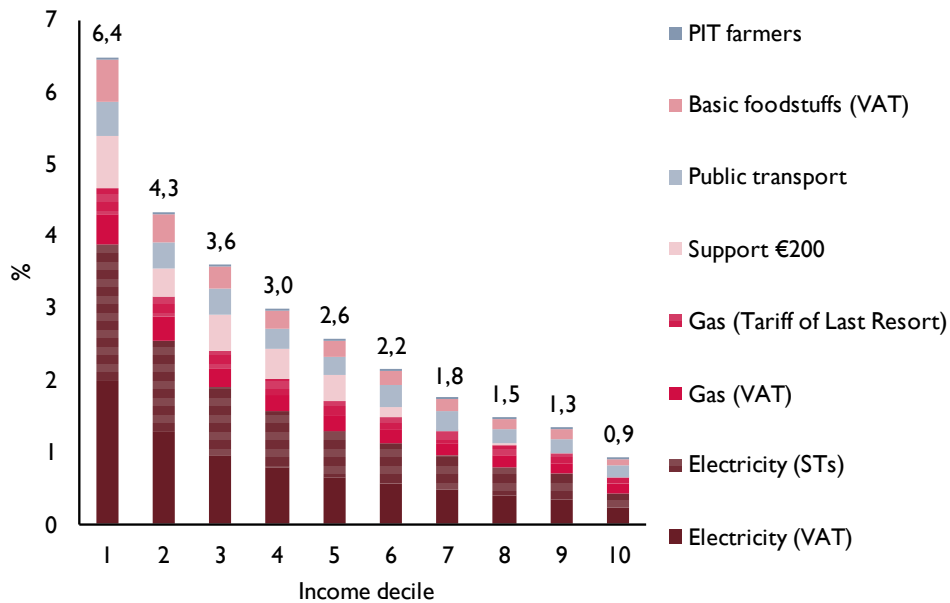
FIGURE B6_3. DISTRIBUTION OF THE COST OF THE PACKAGE OF MEASURES TO MITIGATE THE EFFECTS OF THE INCREASE IN ENERGY PRICES BY INCOME DECILE



Source: Prepared by AIRcF based on the Family Budget Survey (INE) and the Household, Income and Wealth Panel 2016/2019 (IEF)

In relative terms, the measures in force in 2023 result in an increase in the gross income of households, especially those with low incomes. The amount allocated to households in the first decile accounts for 6.4% of their gross income, while this proportion stands at 0.9% in higher income households.

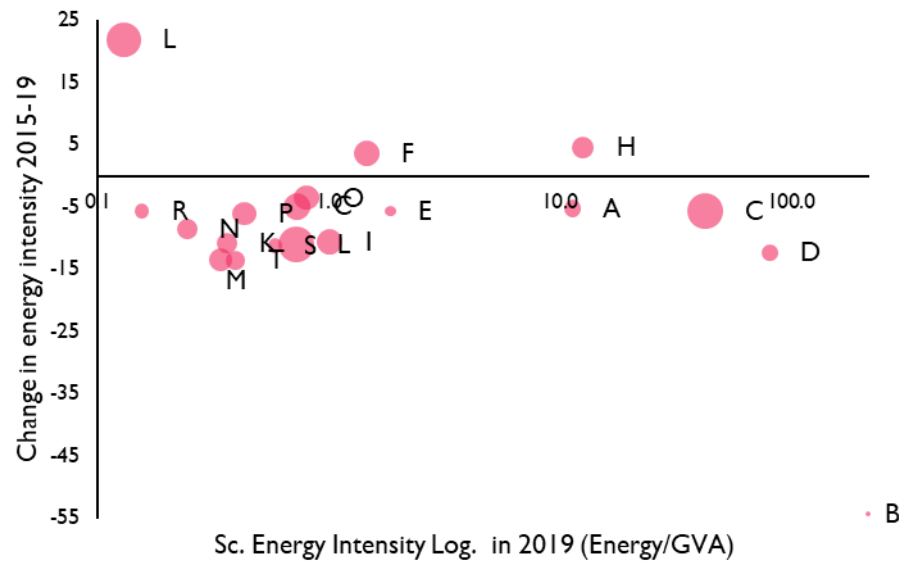
FIGURE B6_4. AMOUNT OF MEASURES IN RELATION TO GROSS HOUSEHOLD INCOME, BY INCOME DECILE



Source: Prepared by AIRcF based on the Family Budget Survey and the Living Conditions Survey (INE) and the Household, Income and Wealth Panel 2016/2019 (IEF)

In addition to those aimed at households, measures have been rolled out to support companies in the primary sector, electro-intensive and gas-intensive industry and the transport sector. These measures entail direct support depending on the consumption of fuel or fertiliser, or parameters approximating said consumption, and reductions in tolls and taxes. These measures can be considered targeted insofar as they are aimed at the most energy-intensive sectors. In addition, in some cases additional requirements and obligations are imposed on companies in order to be eligible for support, in accordance with the State aid framework and the European Commission's communications in this regard. The support does not discriminate on the basis of company size.

FIGURE B6_5. ENERGY INTENSITY BY INDUSTRY



Note: The size of the dots is proportional to the share of the industry in total gross value added

Source: Eurostat

6. EVOLUTION AND SUSTAINABILITY OF PUBLIC DEBT

6.1. Recent evolution and starting point

The Spanish debt-to-GDP ratio stood at 113.2% at the end of 2022, a reduction of 5 points over the year and an increase of 15 points on the pre-pandemic level. In monetary terms, public debt has continued to grow in 2022 to reach €1.5tn. However, the rate of debt growth has been lower than that of nominal GDP, which has led to a reduction in the public debt ratio. The contribution of nominal growth to the fall in the ratio was 10.7 points, of which 6 points came from the real part, and 4.7 points from the deflator. For their part, fiscal factors (mainly deficits) resulted in an increase of 5.7 points, a reduction of one point on the previous year.

Following the sharp initial increase caused by the pandemic, the debt ratio is on a downward path. The correction of the public deficit together with the upturn in activity and much higher than expected inflation have managed to correct approximately one third of the increase caused in the first year of the pandemic, placing the ratio on a clear downward path. Of the 15 points of increase in the ratio over the last three years, the public deficit has contributed with a positive contribution of 21.8 points, which has been partially offset by the GDP deflator by 8.6 points, while the contribution from real growth has been practically zero in the period.

FIGURE 53. DEBT (% GDP), QUARTER-ON-QUARTER EVOLUTION

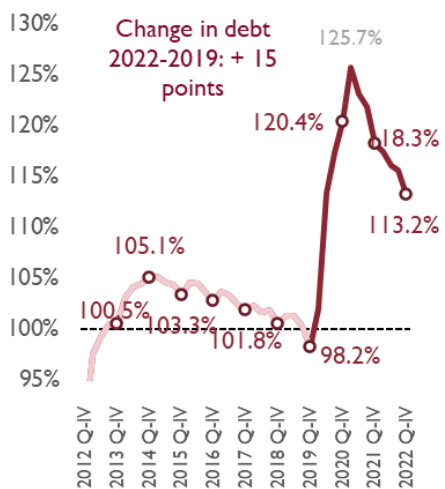
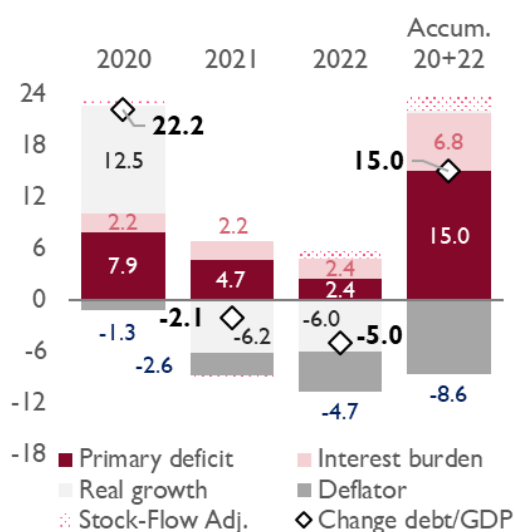


FIGURE 54. CONTRIBUTION TO THE CHANGE IN DEBT (% GDP)



Source: Bank of Spain, INE and AIReF

2022 has marked a turning point in the evolution of debt financing costs. The low interest environment of recent years turned sharply in 2022, when central banks around the world had to react with historic rate hikes in an attempt to curb much higher and more persistent inflation than initially expected. Debt markets have quickly incorporated this scenario with year-to-date rises of more than 250 basis points across all segments of the yield curve.

FIGURE 55. OFFICIAL INTEREST RATES

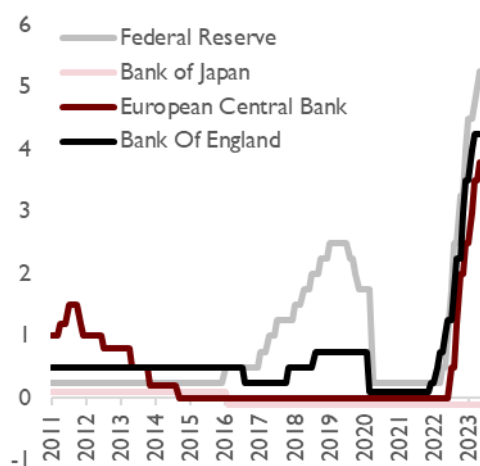
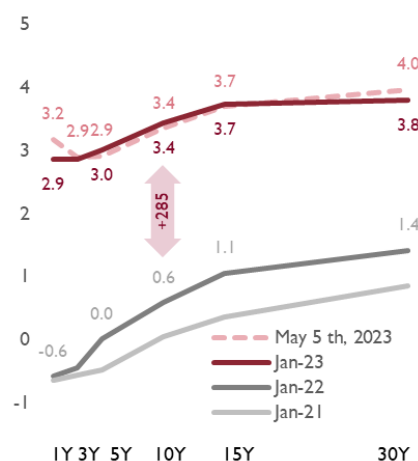


FIGURE 56. SPANISH INTEREST RATE CURVE (%)



Source: Refinitiv

The increase in yields as a result of high inflation has been a global phenomenon. In this regard, it should be noted that Spanish debt has maintained its spread with respect to German debt at around 100 bp, which in historical terms is relatively low.

After reaching its low in 2021, the average cost of new Treasury issues rose in 2022 from -0.04% to 1.35%, a value not recorded since 2014. This higher issuance cost has also generated a turning point in the average cost of the State debt portfolio, which has increased from its historical low of 1.64% to 1.73%.

FIGURE 57. SPREAD WITH GERMANY (RISK PREMIUM)

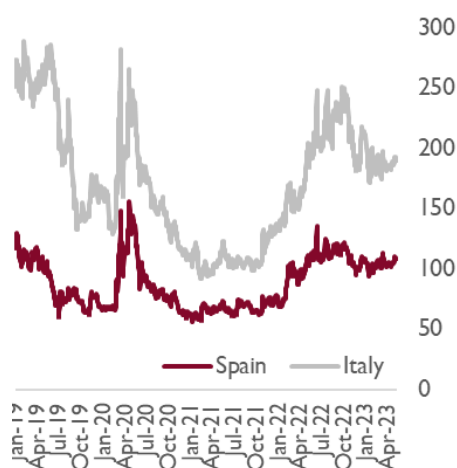
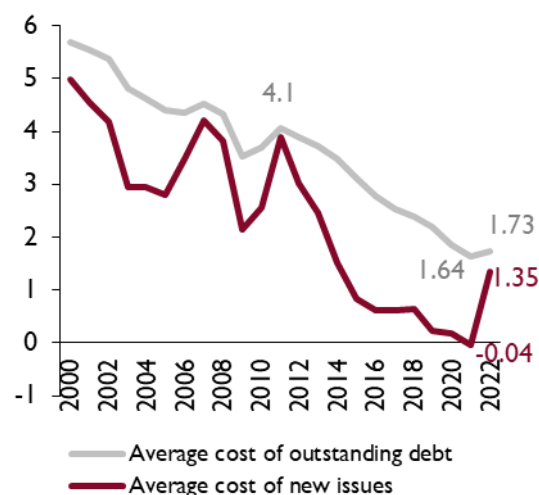
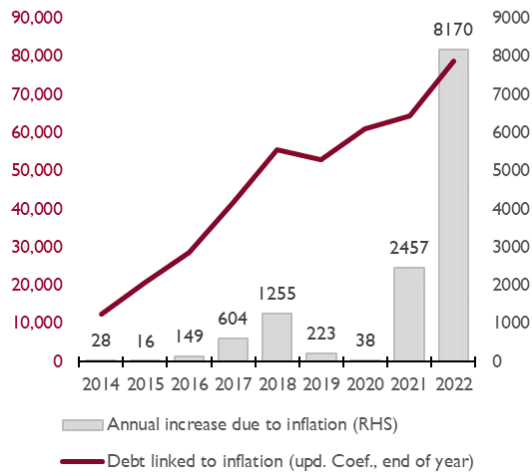


FIGURE 58. AVERAGE COST OF STATE DEBT (%)

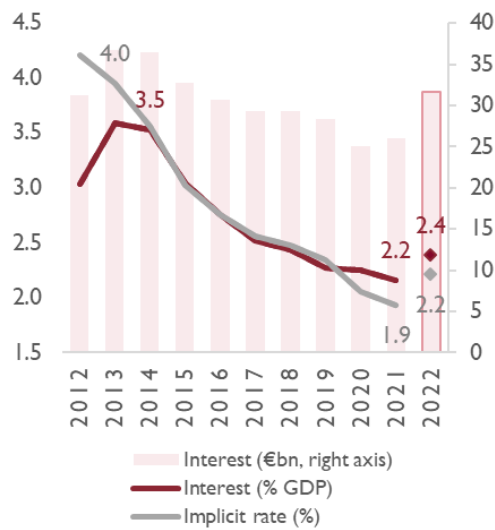


Source: Refinitiv and Public Treasury

The total interest expenditure of the GG rose by €5.55bn in 2022 to a total of €31.6bn, representing 2.4% of GDP. In 2022, interest expenditure in nominal terms has consolidated and accelerated the change in trend that began in 2021 after seven continuous years of reduction. Although the high average maturity of the debt portfolio means that higher interest rates are passed through gradually, it should be noted that the financial burden rose sharply in 2022 as a result of the increase in the debt portfolio linked to inflation, which amounted to over €8bn. However, the strong growth of the economy has made it possible for the financial burden measured as a percentage of GDP to have grown more moderately in 2022, recording a turning point after a continuous reduction for eight years.

FIGURE 59. INFLATION-LINKED DEBT AND ANNUAL INCREASE


Source: Public Treasury, IGAE and AIReF

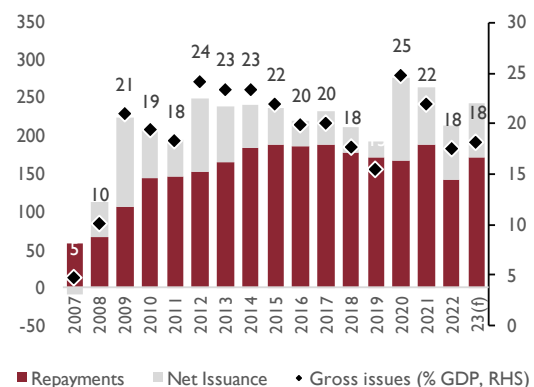
FIGURE 60. FINANCIAL BURDEN AND IMPLICIT RATE OF THE DEBT


For 2023, the Public Treasury proposes a borrowing schedule similar to that of last year, maintaining the goal of net issues at the €70 billion recorded at the end of 2022. The higher volume of repayments will imply a 10% increase in gross issuance in 2023, although as a percentage of GDP they are estimated to remain at 18%, a relatively low ratio by historical standards, representing a low refinancing risk. The Treasury's financing strategy is that all net financing will be obtained through the issuance of medium- and long-term instruments, with a negative net issuance of short-term instruments.

FIGURE 61. TREASURY BORROWING IN 2022 AND 2023 (€BN)

(billions of euros)	Initial forecast 2022	Executed 2022	Forecast 2023
Net borrowing	75,0	70,1	70,0
Gross borrowing	237,5	232,6	256,8
Medium and long term			
Gross borrowing	148,1	143,2	172,5
Repayment	68,1	68,1	97,5
Net borrowing	80,0	75,1	75,0
Letras del Tesoro			
Gross borrowing	89,4	89,3	84,3
Repayment	94,4	94,4	89,3
Net borrowing	-5,0	-5,1	-5,0

Source: Treasury and AIReF

FIGURE 62. TREASURY BORROWING NEEDS (€BN AND % GDP)


With the peak of the pandemic past, with gross issuance amounting to 25% of GDP, gross borrowing requirements are in line with those recorded in the last decade after the rise related to the financial crisis. Looking ahead to the coming years, a stabilisation of the gross borrowing in monetary terms is expected, which will gradually decrease in relation to GDP. The decrease in net borrowing – linked to a deficit reduction process - will be partly offset by the higher repayments associated with a much higher level of debt.

FIGURE 63. HOLDINGS OF GOVERNMENT DEBT BY INVESTOR TYPE (%)

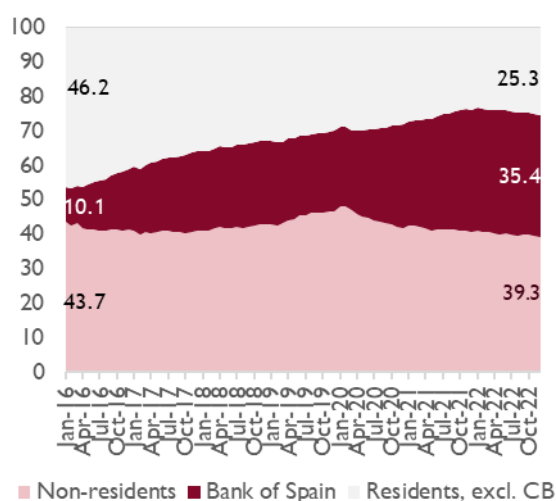
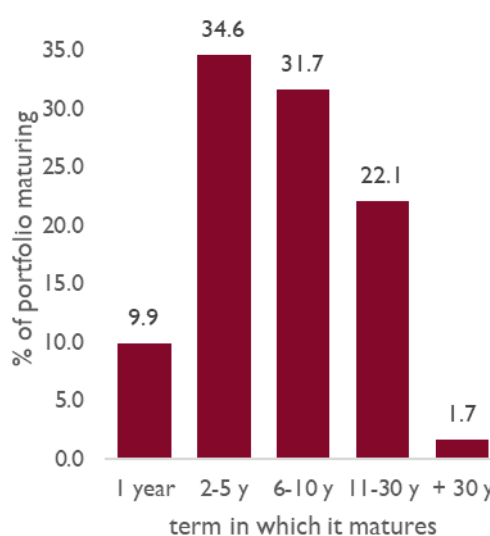


FIGURE 64. MATURITY PROFILE OF STATE DEBT (DEC-22) (PERCENTAGE OF PORTFOLIO AND MATURITY)



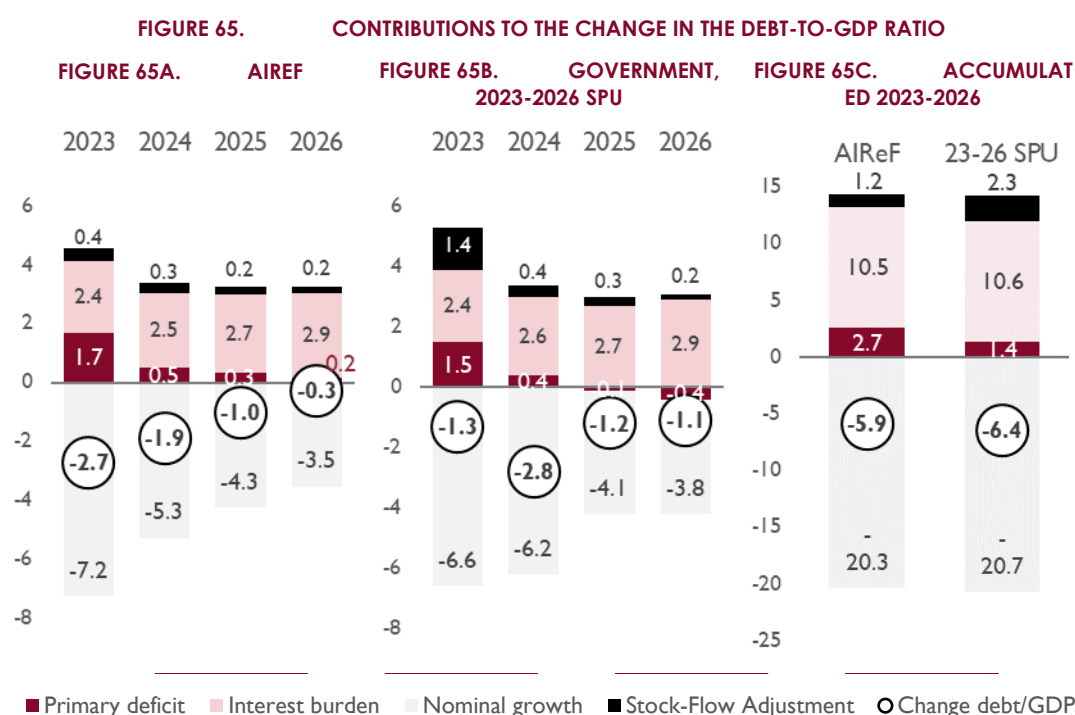
Source: Bank of Spain, Treasury and AIReF

The State debt has a low refinancing risk. The maturity profile of the State debt shows well-distributed borrowing over the next few years, with moderate maturities in the short term and a granular distribution in the medium and long term, with no concentration of maturities in any one year. In addition, the ECB's various public asset purchase programmes initiated in 2015 and intensified in 2020 and 2021 have made the Bank of Spain one of the main holders of Spanish government debt, with its share of the total debt rising by 25 points over the last five years to around 35%. This increase in holdings has displaced part of the resident investor base, with non-resident investment in securities remaining stable at slightly under 40%. In the long term, the reduction in sovereign debt on the ECB's balance sheet might pose a major challenge that is not without risk as it will require the return of a significant part of the resident investor base that has been displaced over recent years.

6.2. Debt projections over the horizon of the Stability Programme Update (2023-2026)

Under the macro-fiscal forecasts prepared by AIReF to assess the Stability Programme, the debt-to-GDP ratio is projected to fall by 5.9 points over the next four years to 107.3% in 2026. After reaching its peak value in the first quarter of 2021 (125.7%), the debt ratio has started a downward path, to stand at 113.2% of GDP at the end of 2022. AIReF's projections show a continuation of this trend over the next four years, with the ratio expected to stand at around 110-111% at the end of this year, and in a range between 105% and 109% in the central interval of AIReF's stochastic projections for 2026.

The reduction in the ratio will be mainly supported by growth in nominal GDP, with a significant contribution from the deflator. The reduction in the debt ratio is strongly anchored in the contribution of nominal growth, which contributes 20.3 points, where the deflator contributes 12.5 points. There is a slowdown in the reduction of the ratio, in line with the slowdown in the contribution of the deflator. Some improvement in the evolution of the primary balance will be partly offset by higher expenditure on servicing debt.



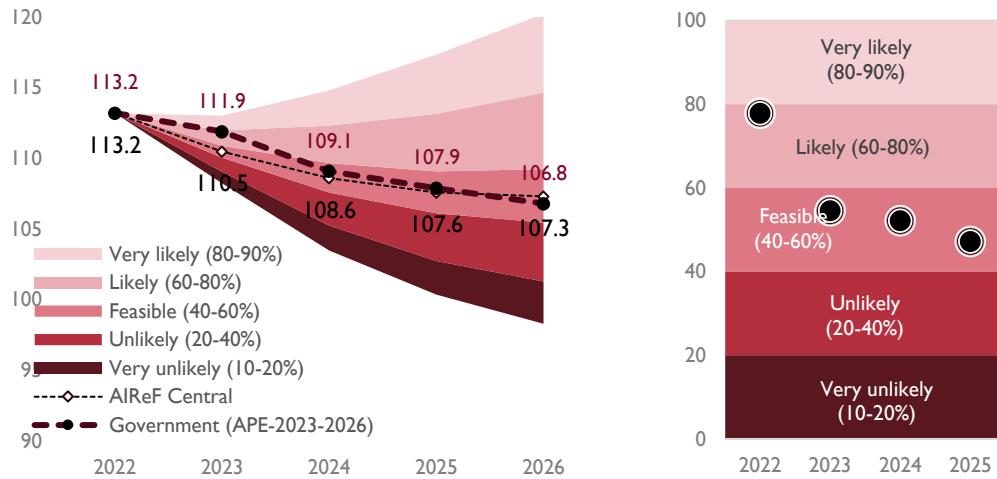
Source: Government and AIReF

AIReF considers the debt projection included in the SPU for 2026 to be feasible.

According to AIReF's stochastic projections, achieving a debt-to-GDP ratio equal to or lower than that projected by the Government in 2026 is considered

feasible. Over the period as a whole, both the reduction in the ratio projected by AIReF and the composition of the factors that determine its evolution are similar to those estimated by the Government.

FIGURE 66. DEBT FORECASTS (% GDP) AND LIKELIHOOD OF REACHING A RATIO EQUAL TO OR LOWER THAN THAT PROJECTED BY THE GOVERNMENT IN THE 2023-2026 SPU



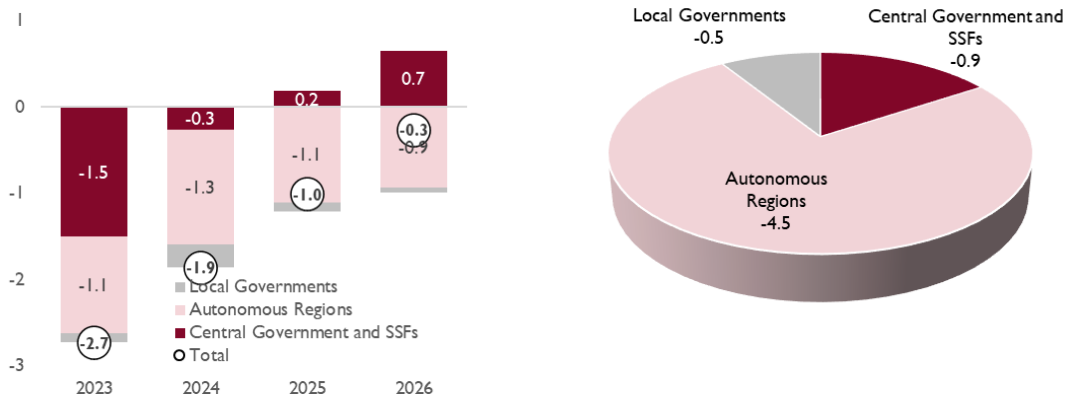
Source: Government and AIReF

At a sub-sector level, the largest reduction in the debt ratio will be recorded by the Autonomous Regions. According to forecasts prepared by AIReF, the Autonomous Regions will record the largest reduction in the debt ratio (4.5 points), bringing their ratio to 19.5% of GDP in 2026. The ratio will fall to a lesser extent in the CG and SSFs (0.9 points) and the LGs (0.5 points).

FIGURE 67. CHANGE IN DEBT BY SUB-SECTOR (GDP POINTS)

FIGURE 67A. BY YEARS

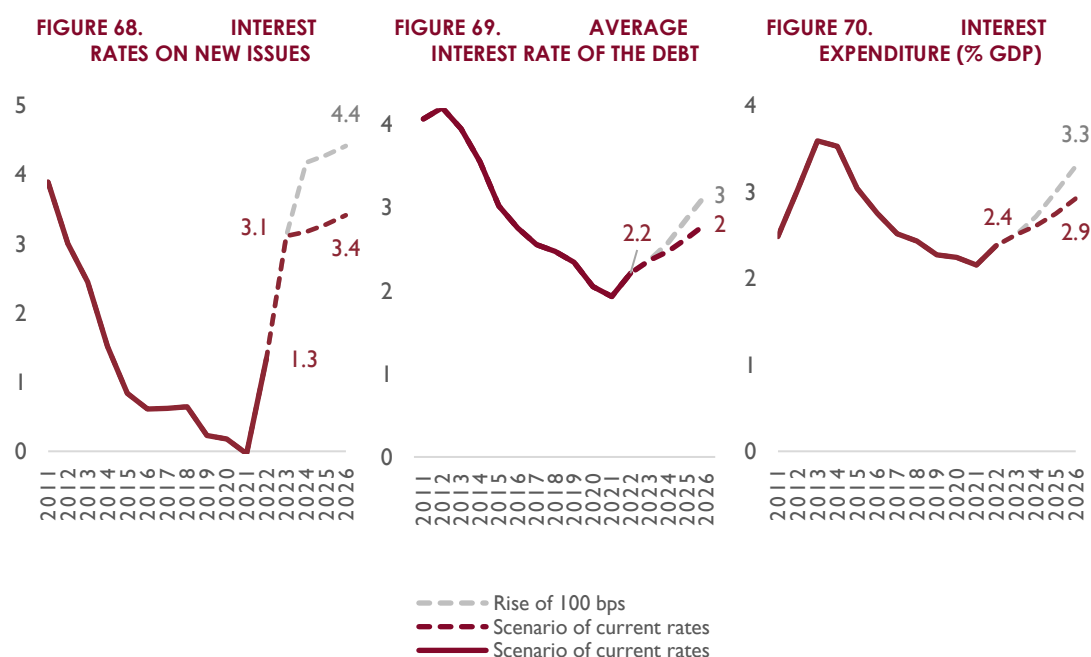
FIGURE 67B. ACCUMULATED PERIOD 2023-2026



Source: AIReF

In the short term, an additional rise in sovereign debt interest rates would have a limited impact on the evolution of the debt ratio. However, in the medium and long term, higher interest rates would require a more intense and

prolonged fiscal effort. 2022 has been a turning point in the evolution of interest rates, with an increase in the average Treasury issuance rate from 0% to 1.3%. According to AIReF's forecasts, in 2023 the average issuance rate would continue to increase to 3%, and to 3.4% in the rest of the SPU horizon. These issuance rates would raise the implicit rate to 2.8% and interest expenditure to 2.9% of GDP. According to AIReF's simulations, an additional rise of 100 bp in rates in all sections of the curve as from 2024 would not result in a substantive change in the evolution of the short-term debt ratio (specifically, it would generate an increase of 0.5 points in 2026). However, it would result in a certain increase in the financial burden as a percentage of GDP (by 0.4 points, rising to 3.3%) and an additional accumulated interest expenditure in 2026 of just over €10bn. Although in the short term the impact of a rise in rates is limited, in the medium and long term, the impact would end up being very significant in the evolution of the financial burden and, if not offset by adjustments in other expenditure or revenue items, in the debt path.



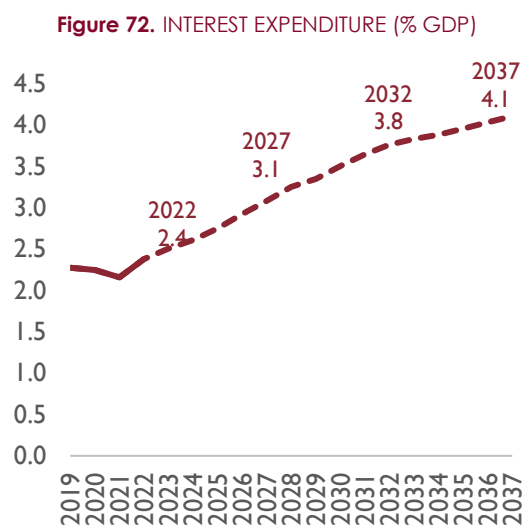
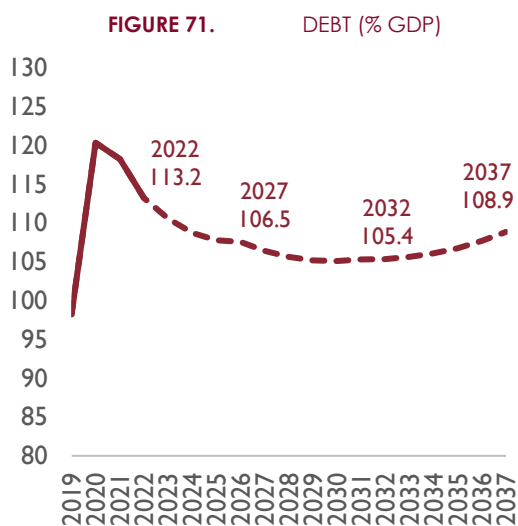
Source: AIReF

6.3. Sustainability analysis

The new monetary cycle and the rapid and intense tightening of financing conditions, together with the high level of existing debt, places the sustainability of public finances at a highly vulnerable starting point. The evolution of inflation, which is higher and more persistent than initially expected by central banks, has made it necessary to intensify the restrictive monetary policy stance. This has led to sharp upturns in global sovereign debt

yields and in financing expectations for the coming years. This new interest rate environment implies a major vulnerability for the sustainability of public finances, given the high debt that will have to be refinanced at significantly higher rates.

In the medium and long term, AIReF projects an unfavourable evolution of the debt-to-GDP ratio. In its long-term baseline scenario, AIReF projects a rising debt ratio following an initial period of some stabilisation. The expected increase spending associated with the ageing of the population is one of the major challenges for the sustainability of the public finances in the medium and long term. The high initial level of debt added to unbalanced public accounts will generate an unfavourable trend in the financial burden even in a scenario of containment of the cost of debt. In its long-term scenario, AIReF projects interest expenditure in relation to GDP that will gradually and steadily rise from 2.4% of GDP in 2022 to around 4% in the next 15 years.



Source: AIReF

The creation of fiscal space, which is required to reduce the current level of debt and to be able to address future shocks such as those that have occurred in recent years, makes it necessary to design a medium-term plan that guides public accounts towards a balanced situation. A gradual and sustained adjustment to achieve budgetary equilibrium within a reasonable time horizon will generate a path for reducing the debt ratio to more prudent levels, containing the financial burden and creating the fiscal space necessary to address future challenges, both of a known nature - such as ageing and issues related to climate warming - and of an unpredictable nature.

BOX 7. REFORM OF THE EUROPEAN FISCAL FRAMEWORK

The EU fiscal framework is undergoing a review process that started before the pandemic in February 2020. Following a period of public consultation to which AIReF contributed²⁸, the European Commission (EC) published its legislative proposal to reform the economic governance framework on April 26th. In line with its November 2022 Communication, the Commission proposes a more medium-term fiscal policy orientation on the basis of fiscal-structural plans to be submitted by Member States, which, barring exceptional circumstances, may not be modified during their lifetime.

These plans - with a time horizon covering four or seven years depending on whether the Member State accompanies it with a series of reforms and investments - should detail, as an operational variable, a primary expenditure path net of revenue measures that guarantees sufficient adjustment. Determination of the size of the adjustment is calibrated according to a series of criteria.

Specifically, for countries with a GG deficit of more than 3% of GDP and/or a public debt above 60%, the spending path must ensure that, once the adjustment period has ended and in the absence of additional measures: (1) the deficit is reduced below 3% and remains below that benchmark in the following decade; (2) debt is kept on a plausibly downward path in the following decade; (3) there is no backloading of the fiscal adjustment effort; (4) debt at the end of the plan period is below the starting level; (5) growth in national expenditure net of revenue measures is below medium-term potential growth over the entire adjustment period; and (6) for countries whose deficit is above 3% and the excess over this benchmark is neither small nor temporary, the minimum fiscal adjustment should be 0.5% of GDP per year.

²⁸ In the context of the debate on the reform of economic and fiscal governance in the EU, AIReF has published two papers. The first reflects AIReF's contribution to the public consultation launched by the European Commission in October 2021 <https://www.airef.es/wp-content/uploads/2022/02/CONTRIBUCION-DE-LA-AIReF-ALA-CONSULTA-PUBLICA-DE-LA-COMISION-EUROPEA-SOBRE-LA-REFORMA-DELMARCO-FISCAL-EUROPEO.pdf>. The second is a technical paper that contains a specific proposal for the reform of the fiscal framework, applied to the Spanish economy. https://www.airef.es/wpcontent/uploads/2022/10/DT_REGLAS_FISCALES/221021-DT-Fiscal-Regulations-2.pdf

With regard to the second criterion, the EC proposal is based on the debt sustainability analysis methodology used in the Debt Sustainability Monitor²⁹. This methodology combines, on the one hand, stochastic projections that cover a wide range of possible shocks that affect the debt trajectory and, on the other hand, deterministic stress scenarios. The latter include adverse interest rate-growth differential scenarios, financial stress scenarios and scenarios with a more deteriorating structural primary balance than that underlying the baseline projection.

The tentative simulation exercises performed by AIR^eF based on the EC legislative proposals of April 26th show that the most restrictive methodological criteria when determining the magnitude of the adjustment are twofold: (i) in the stochastic component, after completion of the adjustment, the baseline projection of debt in the stochastic projection period, i.e. over the next five years, should ensure that debt is lower than the starting point with a 70% probability; and (ii) in the deterministic stress scenario component, after the adjustment is completed, the baseline projection of debt over the next decade should be decreasing, where the interest rate-growth differential scenario is shown to be the most restrictive in the current context. In the case of Spain and in the current circumstances, given these two criteria, the rest would be met.

This shows that, if this proposal for a new framework with a strengthened medium-term dimension goes ahead, debt projections will play a very important role. In particular, projections of medium- and long-term revenue and expenditure trends, as well as growth projections for these same horizons.

Against this backdrop, it is crucial to produce credible, consistent and transparent fiscal targets. The reform of the European fiscal framework seeks greater national ownership of EU rules, which will lead to more efficient economic compliance and coordination.

In this context, ensuring that fiscal targets are set with greater internal consistency, transparency and adequacy to the present and future situation of public finances will be a necessary condition for achieving a more efficient fiscal framework that facilitates compliance with the commitments acquired.

²⁹ See “Debt Sustainability Monitor 2022”. Institutional Paper 199 | April 2023

Independent fiscal institutions can play an important role in providing medium and long-term projections of debt and potential growth. Especially in the current context, in which the recurrence of negative shocks or polycrisis adds uncertainty to projections of potential growth, already weakened in a context of secular stagnation. In the near horizon, elements can be seen that would add to this trend, such as the possible increase in global fragmentation³⁰ that limits the channelling of capital and thus foreign investment and global growth. Against this backdrop, the National Recovery and Transformation Plans have the chance to provide new long-term growth levers. Evaluating these levers becomes even more necessary in the future governance framework. In the area of debt, it will be necessary to obtain medium-term estimates of the impact of climate change on public accounts in the medium term and of ageing, as AIReF has carried out in its recent Opinion³¹.

AIReF's simulations show that the design of a fiscal strategy compatible with the European Commission's guidelines and with the proposed reform of the fiscal framework would require a more demanding path than that contained in the Stability Programme Update. The European Commission's Communication on fiscal policy guidance in 2024³² invited Member States with substantial or moderate public debt challenges to set fiscal targets in their Stability Programmes to ensure a plausible and continuous reduction in their debt levels. Along the same lines, the legislative proposal recently presented by the Commission for the reform of the fiscal framework establishes that fiscal targets must guarantee, among other things, that debt remains on a plausibly downward path in the medium and long term. In contrast, AIReF's projections show a debt path that would stabilise towards the end of this decade and move to an upward trajectory at the start of the following decade.

According to AIReF's calculations, the fiscal path that would comply with the Commission's guidance for the period 2024-2027 would require additional

³⁰ [Goeconomic Fragmentation and the Future of Multilateralism \(imf.org\)](https://www.imf.org)

³¹ [AIReF. Opinion on the Long-Term Sustainability of the General Government: the impact of demographics](#)

³² See "[Communication on fiscal policy guidance for 2024](#)"

measures over the next four years of 0.46 points per year³³. This would meet the requirement of plausibly reducing debt in the most demanding scenario that, according to AIReF's calculations, is defined by an adverse shock of 1% in the interest rate-growth differential. The annual adjustment of 0.46 points of GDP (1.84 points accumulated over four years)³⁴ in the period 2024-2027 would mean a reduction in the debt ratio of 24 points of GDP in the next 15 years (to 85% of GDP in 2037 vs. 109% in the baseline scenario). In addition, debt would be on a clearly downward path, even in the event of a 1% shock in the interest rate-growth differential. The Government's projections included in the SPU would also not guarantee, in AIReF's opinion, that debt would remain on a plausibly downward path in the medium and long term. According to its forecasts, the necessary adjustment to guarantee it would amount to 0.3 points per year over the period 2024-2027.

³³ Adjustment in line with fulfilling the requirements of the European Commission's Debt Sustainability Analysis methodology, including the adverse stress scenario of a 1% interest rate-growth differential.

³⁴ An annual adjustment of 0.36 points (1.5 points accumulated over four years) would be sufficient to meet the stochastic criterion of plausibility of the European Commission's methodology, but not with the deterministic criteria associated with stress scenarios (see [BOX 7](#) Reform of the European fiscal framework for more details on the requirements that the debt path and the deficit must meet in the new framework). In particular, an adjustment of 0.36 points of GDP over four years would increase the probability that the debt ratio will show a downward path in the five years following the adjustment (2032), placing the debt ratio at 90% of GDP in 2037. The baseline scenario assumes a probability of fulfilling that requirement of 53%, while the more demanding adjustment that guarantees a downward path of debt in an adverse scenario of the interest rate-growth differential (0.46 points) raises that probability to 74%.

FIGURE 73. BASELINE DEBT PROJECTION (% GDP), AND INTEREST RATE-GROWTH SHOCK (I-G)

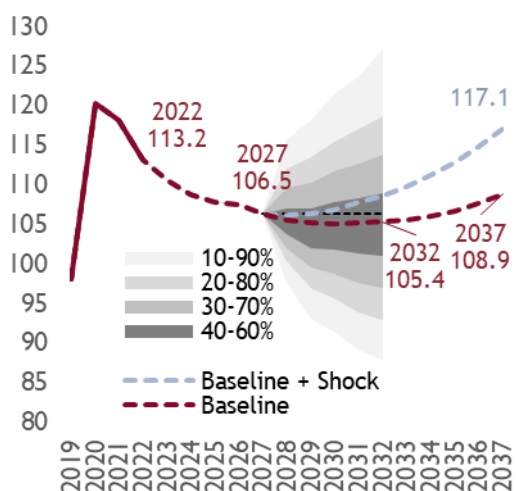
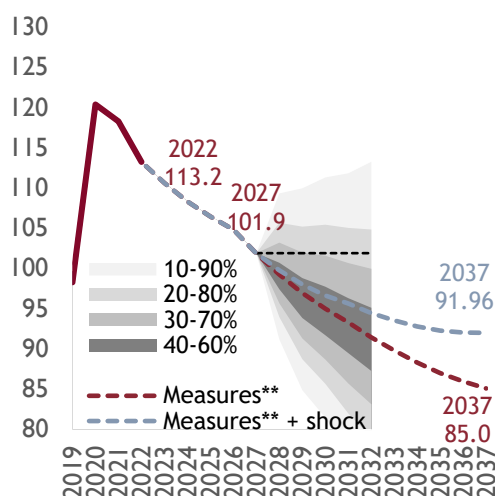
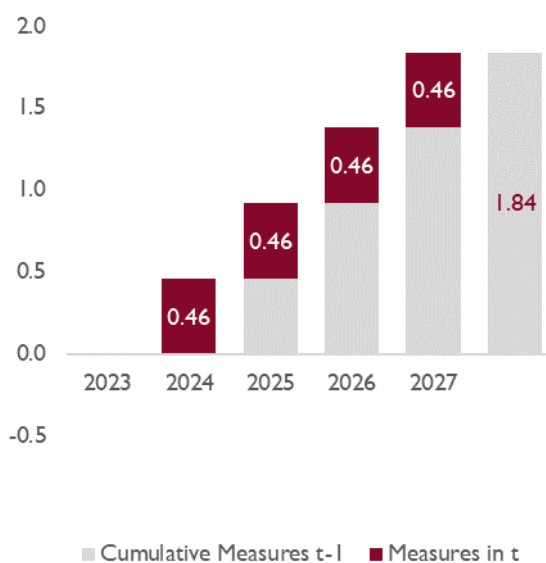


FIGURE 74. DEBT PROJECTION, SCENARIO WITH MEASURES (0.46 POINTS) AND I-G SHOCK



Source: AIReF

FIGURE 75. VALUE OF THE MEASURES (GDP POINTS) OF THE MOST RESTRICTIVE SCENARIO (I-G)



Source: AIReF

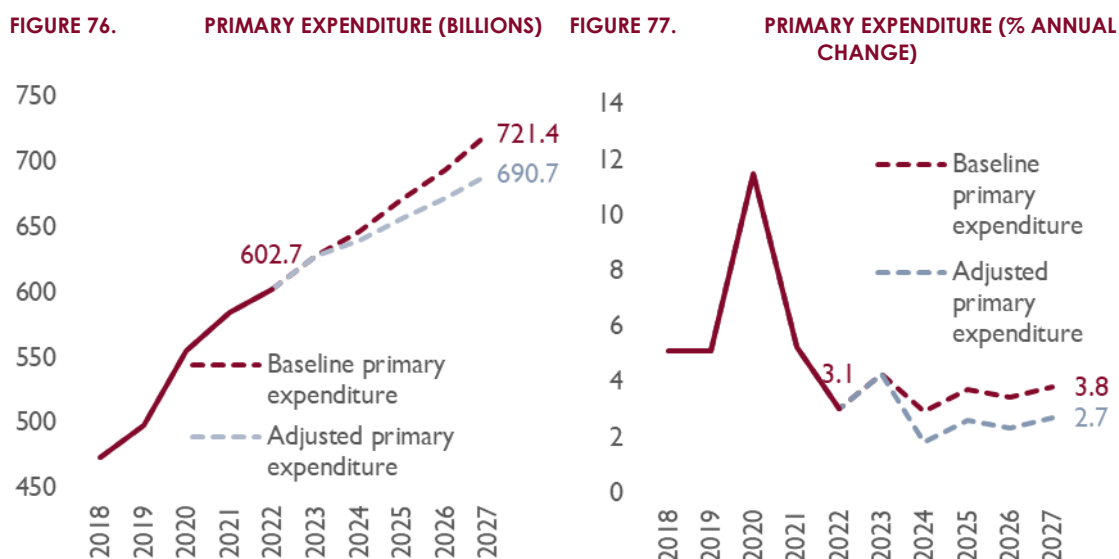
AIReF's simulations show that an adjustment of 0.46 points of GDP per year over four years would generate a containment of around €30bn in the evolution of primary expenditure (net of revenue measures) at the end of the adjustment period. Given AIReF's long-term projections for revenue, primary expenditure, interest and growth, an adjustment of 0.46 points of GDP would imply a containment in the path of primary expenditure net of revenue measures (operational variable) of €30.64 billion (1.84% of GDP in 2027) from the baseline estimate compatible with this SPU of €721.36bn in 2027, to €690.72bn. In terms

of rates of change, the adjusted path implies an annual increase in net primary expenditure of 2.4% in nominal terms over the period 2024-2027, compared with an average increase of 3.5% in the baseline path compatible with the SPU over the same period.

TABLE 19. 15-YEAR PROJECTION OF THE DETERMINING VARIABLES OF THE EVOLUTION OF THE DEBT RATIO

	Nominal GDP (% change)	Real GDP (% change)	Deflator GDP (% change)	Revenue (% GDP)	Primary expenditure (% GDP)	Primary balance (% GDP)	Interest (% GDP)	Total balance (% GDP)
1999-2019 cycle	4,0	2,0	1,9	38,3	39,5	-1,2	2,5	-3,7
2023-2026	4,8	1,8	2,9	42,9	43,6	-0,7	2,7	-3,4
2027-2037	3,4	1,4	2,0	43,9	43,9	0,0	3,7	-3,7
2023-2037	3,8	1,5	2,2	43,6	43,8	-0,2	3,4	-3,6

Source: AIReF



Source: AIReF

7. RECOMMENDATIONS

7.1. New Recommendations

During the period of suspension of fiscal rules, AIReF has been making recommendations to the Government to establish a medium-term fiscal strategy that will act as fiscal guidance and realistically and credibly ensure the financial stability of the General Government.

The European Commission has now published a comprehensive proposal for the reform of the European fiscal rules framework that places greater emphasis on the sustainability of public finances in the medium and long term. It also sets out that Member States must submit four-year fiscal-structural plans with a path of expenditure net of revenue measures that is established as a core element for supervision.

In this regard, the European Commission, in its Communication of fiscal policy guidance for 2024, called on States to include fiscal-structural plans in their Stability Programmes which ensure that (i) debt remains on a plausible and continuous downward path and that (ii) the deficit is reduced to below 3% of GDP on a stable basis. In addition, the Stability Programmes should contain clear details on the measures to mitigate the energy crisis, including their budgetary impact, their phasing-out and the underlying assumptions on energy price developments. They should also incorporate an assessment of

how the planned reforms and investments will contribute to fiscal sustainability and inclusive and sustainable growth.

Meeting the stability targets contained in the path presented by the Government does reduce the deficit to below 3% of GDP. However, the SPU does not explain whether, after the end of the projection period, the debt remains on a plausibly downward path.

In addition, although the European fiscal framework that is eventually adopted may deviate from the current Commission proposal, it is already clear that it will not be fully compatible with the national fiscal framework. Said framework will therefore need to be reformed.

The Commission's proposal contains sufficient elements to lay the foundations for the future national fiscal framework, as well as to define the content of a medium-term fiscal strategy. Taking into account Spain's fiscal situation, drawing up a reform of the national fiscal framework with a comprehensive perspective that addresses all the weaknesses of the current framework and ensures consistency with the European framework will require a significant effort. In addition, the degree of decentralisation of the country adds greater complexity to the transfer of European standards to the institutional reality of Spain.

Therefore, **AIReF makes the following recommendations to the Ministry of Finance and Civil Service:**

-
- 1. Start work on the reform of the national fiscal framework with the participation of the different tiers of the GG from a holistic perspective.***
 - 2. Incorporate in the Resolution of the Council of Ministers setting stability targets an analysis of how the targets meet the requirement that the debt should remain on a plausible and continuous downward path and how this may be reached by each tier of government to ensure consistency in the distribution***
-

The Stability Programme Update insists that the RTRP reforms and investments are contributing to boosting the potential growth of the Spanish economy. However, the lack of information, the lack of specificity of some reforms and investments, the limited degree of execution of the investments and the short time that has elapsed since the reforms were approved make it difficult to properly analyse and assess the impact of the RTRP on the Spanish economy.

In addition, the Opinion on the Long-Term Sustainability of General Government highlighted the importance of potential growth as a

fundamental pillar of sustainability. In the same vein, the European Commission's proposal also gives a key role to reforms aimed at raising the economy's potential growth. Although an evaluation of the RTRP is planned at an EU level, no specific evaluation is planned at a national level.

Therefore, **AIReF makes the following recommendations to the Ministry of Economic Affairs and Digital Transformation:**

3. Design an RTRP assessment governance model for the coming years. In this regard, and following the scheme proposed in the study on institutionalisation of evaluation prepared by AIReF with the assistance of the OECD, governance based on three levels is proposed:

- 1. An internal governmental institution aware of the specific features of the evaluation to carry out the planning and coordination of this evaluation and guarantee, in addition, the consideration by governments of the findings and proposals resulting from the evaluation.**
 - 2. Each management centre affected by the specific chapters of the RTRP should conduct a continuous follow-up by means of an indicator map that addresses the degree of implementation and results. In addition, this map of indicators will serve to systematise, in part, the information needed to carry out the ex-post evaluation.**
 - 3. Independent and external agents should carry out more comprehensive evaluations that will determine the ex post impact in terms of efficiency and effectiveness, especially in those chapters on reforms and investments in the plan that may have greater importance in the future growth dynamics of the Spanish economy and on the composition of revenue and expenditure. This evaluation should include, in addition to rigorous impact and efficiency analyses, studies on the problems of the design and implementation of the plan that may have limited its potential scope.**
-

7.2. Repeated recommendations

The Ministry of Finance and Civil Service does not publish information on the implementation of the Recovery, Transformation and Resilience Plan (RTRP) in national accounting terms.

Irrespective of the fact that RTRP revenue and expenditure have a neutral effect on the deficit in national accounting terms, it is essential to identify the part of the GG revenue and expenditure that corresponds to RTRP in

accordance with national accounting. From a macroeconomic point of view, this would make it possible to know which funds are reaching the final recipient and, therefore, those that are producing effects on the economy. From a fiscal point of view, it allows an analysis of the evolution of the revenue and expenditure that are not related to the RTRP and that constitute the ordinary activity of the General Government.

Therefore, AIReF considers it essential for the analysis and monitoring of the accounts of the General Government that information be published regularly on the revenue and expenditure of the RTRP that are executed in national accounting separately from other revenue and expenditure. This publication should coincide in time and in the detail provided with the information published by IGAE in the monthly and quarterly execution reports in national accounting.

Therefore, **AIReF makes the following recommendations to the Ministry of Finance and Civil Service:**

-
- 4. Publish separately the amounts corresponding to the revenue and expenditure of the RTRP in the national accounting headings of the monthly and quarterly execution reports published by the IGAE and in the data at year-end.**
-

7.3. Recommendations contained in the endorsement of the macroeconomic forecasts

On April 28th, AIReF published the endorsement of the macroeconomic forecasts of the 2023-2026 SPU, which contained two recommendations that are deemed to be alive. These are specified below and have been forwarded to the recipient authorities.

Information for the endorsement of the macroeconomic forecasts

Given the existing interrelations between the macroeconomic outlook and the fiscal scenario, AIReF calls for more information on the budgetary and fiscal measures included in the macroeconomic scenario with the aim of increasing the rigour of the endorsement process. Improving the supply of information is particularly important in the case of the RTRP given the key role that it can play as a catalyst for activity.

Memorandum of Understanding

AIReF once again notes the need for the process of endorsing the macroeconomic forecasts to be regulated by an agreement between the

parties. With the aim of making the process of endorsing the macroeconomic framework more transparent and efficient, AIReF reiterates its recommendation to the Government to regulate, in line with best practices in peer countries, the flow and timing of the exchange of information through an agreement or “Memorandum of Understanding”.

The President of AIReF

A handwritten signature in blue ink, appearing to be 'C. H. Sánchez', enclosed within a blue oval shape.

Cristina Herrero Sánchez

ANNEX I. Ex-post evaluation of Stability Programme forecasts

This section sets out an ex-post analysis of the Government's macroeconomic forecasts, according to European rules. Article 8 of Royal Decree 337/2018, of May 25th, partially transposing Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States, promotes regular assessments of the projections on the basis of objective criteria. Its translation into Organic Law 6/2013 on the establishment of an Independent Authority for Fiscal Responsibility indicates, in Article 14, that the report on macroeconomic forecasts will include an assessment of the existence of significant biases in the Government's forecasts over a period of four consecutive years.

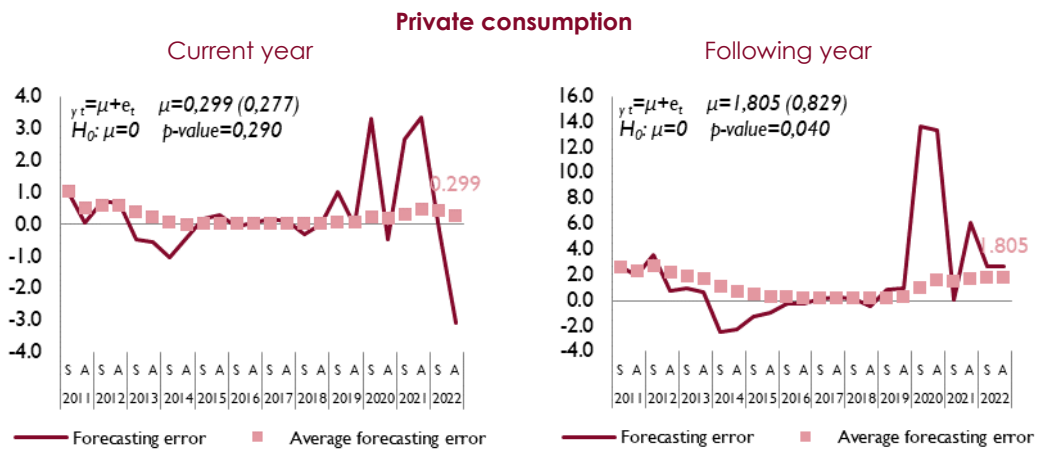
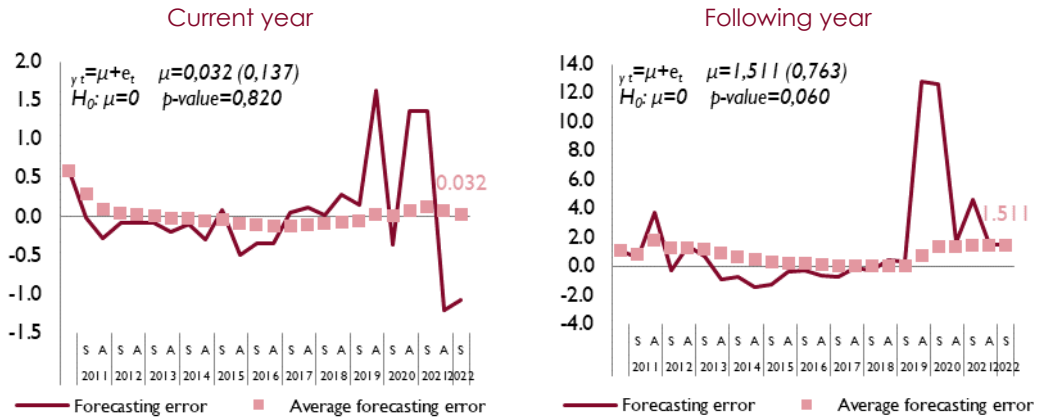
This section analyses the existence of systematic errors and significant biases and makes a comparison between different institutions following the methodology³⁵ used since AIReF's report on the 2022-2025 SPU, adding the estimates for 2022. In particular, the following results of this report are maintained:

- **There are no significant biases that are repeated systematically in the forecasts made by the Government over the last four years.** However, in 2022, there is an increase in the number of errors, both large and significant, in the estimates of the current year, which does not improve with the availability of more information, and which could be justified by the greater volatility of the national accounting data in that year.
- **The Government systematically underestimates public consumption, to a greater extent in the estimates for the following year and there continues to be a significant non-systematic upward bias in the estimates of GDP and its components and employment at one year,** due to the impossibility of predicting the onset of COVID-19. In 2022, the optimistic trend in the estimate of private consumption in the current year is no longer significant.
- **The bias committed by the Government in its GDP forecasts for the current year is similar to that committed by AIReF, but it differs statistically from the other institutions.** Both the Government and AIReF present a positive bias contrary to the rest of the institutions, although

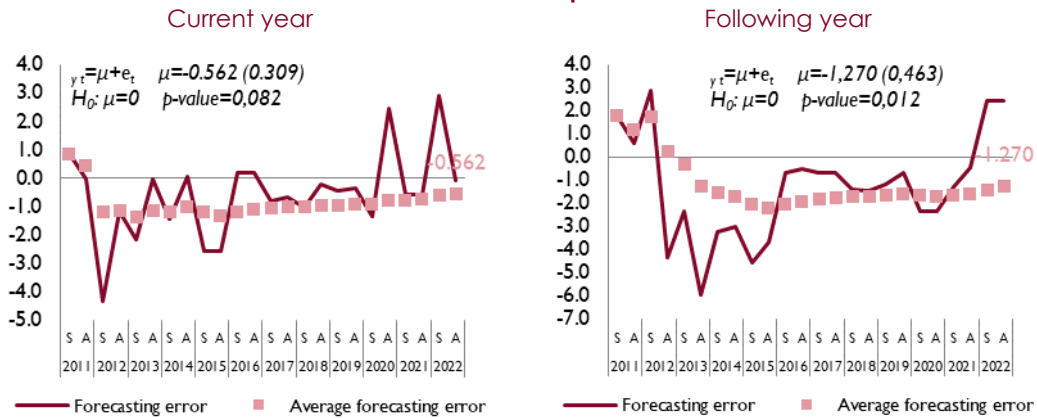
³⁵ https://www.airef.es/wp-content/uploads/2022/WEB/AP%C3%88/Infome-APE-2022-2025_20220704.pdf (Section 2.4)

no bias differs statistically from zero. When including the 2022 forecasts, significant specific differences in some demand components with respect to other organisations emerge. However, in general, no significant differences are observed (annex i. table 1 tests of bias significance and bias equality).

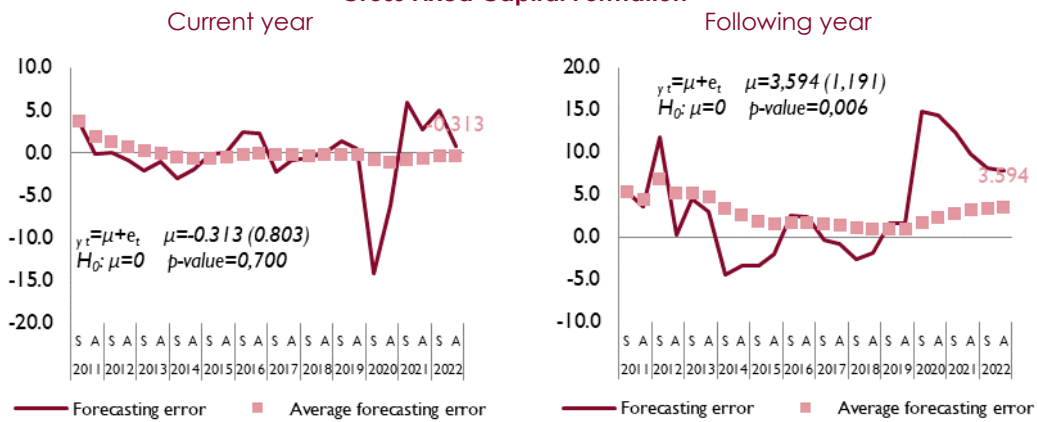
ANNEX I. FIGURE 1. FORECASTING ERRORS AND AVERAGE ERROR IN ESTIMATES OF GDP, DEMAND COMPONENTS AND EMPLOYMENT
Gross Domestic Product



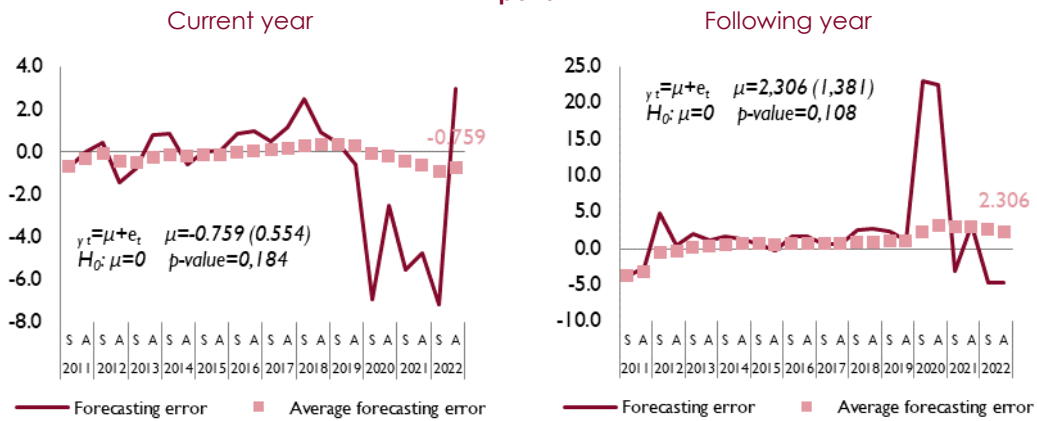
Public consumption



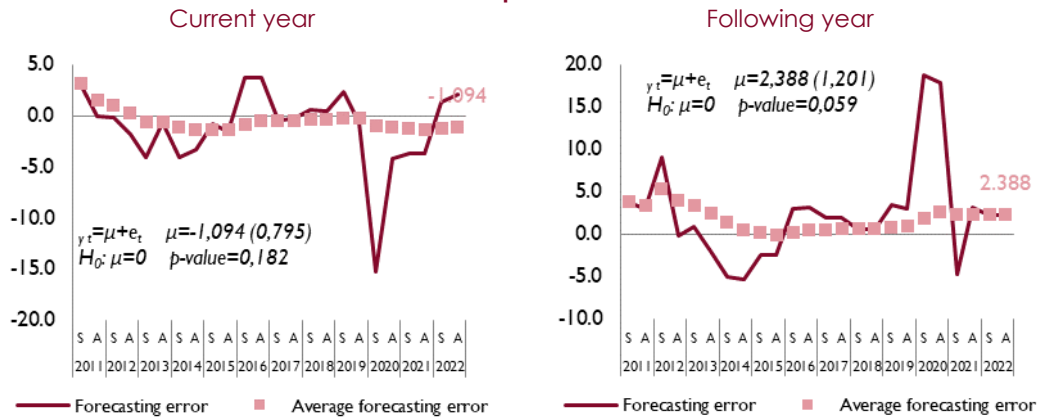
Gross Fixed Capital Formation



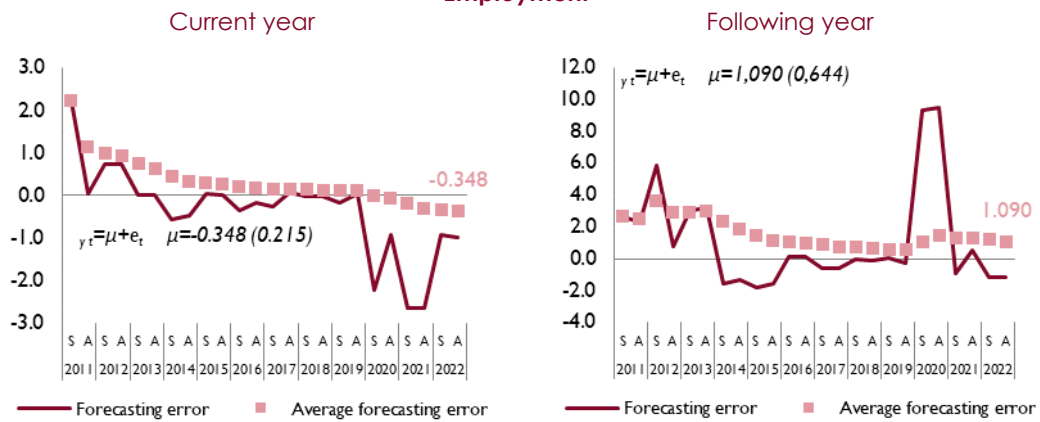
Exports



Imports

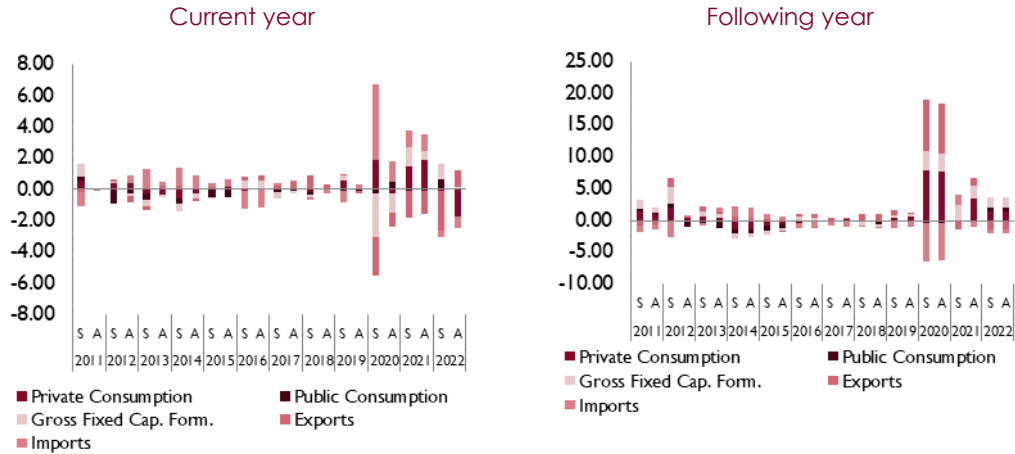


Employment



Source: AIReF and Ministry of Economic Affairs and Digital Transformation.

CONTRIBUTIONS OF THE DEMAND COMPONENTS TO THE GDP ESTIMATE ERROR



Source: AIReF

ANNEX I. TABLE 1. TESTS OF BIAS SIGNIFICANCE AND BIAS EQUALITY

		Current year			Following year		
		N	Bias [p-value]	T [p-value]	N	Bias [p-value]	T [p-value]
Gross Domestic Product	Government	24	0.03 [0.82]		24	1.51 [0.06]	
	AIReF	24	0.02 [0.90]	0.40 [0.69]	24	2.19 [0.10]	1.01 [0.33]
	Bank of Spain	24	-0.05 [0.67]	1.82 [0.08]	24	1.31 [0.10]	0.79 [0.44]
	European Commission	24	-0.15 [0.25]	2.95 [0.01]	24	1.40 [0.11]	0.26 [0.80]
	FUNCAS Panel	24	-0.11 [0.41]	2.75 [0.01]	24	1.24 [0.11]	1.49 [0.15]
Private Consumption	Government	24	0.30 [0.29]		24	1.81 [0.04]	
	AIReF	24	0.32 [0.35]	0.73 [0.48]	24	2.77 [0.05]	0.47 [0.64]
	Bank of Spain	24	0.40 [0.23]	-0.79 [0.44]	24	1.56 [0.08]	0.74 [0.47]
	European Commission	24	-0.20 [0.49]	2.29 [0.03]	24	1.46 [0.13]	0.54 [0.59]
	FUNCAS Panel	24	0.09 [0.70]	1.49 [0.15]	24	1.59 [0.07]	0.96 [0.35]
Public Consumption	Government	24	-0.56 [0.08]		24	-1.27 [0.01]	
	AIReF	24	0.19 [0.54]	-1.68 [0.11]	24	-0.87 [0.09]	0.57 [0.58]
	Bank of Spain	24	-0.73 [0.01]	0.83 [0.42]	24	-1.05 [0.03]	-0.48 [0.64]
	European Commission	24	-0.51 [0.09]	-0.46 [0.65]	24	-0.67 [0.13]	-2.34 [0.03]
	FUNCAS Panel	24	-0.32 [0.26]	-1.37 [0.18]	24	-0.62 [0.17]	-2.33 [0.03]
Gross Fixed Capital Formation	Government	24	-0.31 [0.70]		24	3.59 [0.01]	
	AIReF	24	-0.25 [0.86]	0.17 [0.86]	24	5.52 [0.01]	-0.86 [0.40]
	Bank of Spain	24	-1.01 [0.17]	2.20 [0.04]	24	3.14 [0.01]	0.57 [0.57]
	European Commission	24	-0.48 [0.51]	-0.03 [0.98]	24	2.56 [0.05]	0.69 [0.50]
	FUNCAS Panel	24	-0.52 [0.36]	0.56 [0.58]	24	2.57 [0.03]	1.68 [0.11]
Exports	Government	24	-0.76 [0.18]		24	2.31 [0.11]	
	AIReF	24	-1.00 [0.36]	-0.12 [0.91]	24	3.36 [0.16]	0.28 [0.78]
	Bank of Spain	24	-0.30 [0.46]	-1.13 [0.27]	24	2.11 [0.17]	0.35 [0.73]
	European Commission	24	-0.17 [0.64]	-1.35 [0.19]	24	2.71 [0.09]	0.00 [1.00]
	FUNCAS Panel	24	-0.61 [0.10]	-0.36 [0.72]	24	1.86 [0.19]	1.84 [0.08]
Imports	Government	24	-1.09 [0.18]		24	2.39 [0.06]	
	AIReF	24	-0.85 [0.60]	-0.18 [0.86]	24	4.43 [0.02]	-0.72 [0.48]
	Bank of Spain	24	-0.69 [0.20]	-0.69 [0.50]	24	2.34 [0.10]	0.06 [0.95]
	European Commission	24	-0.94 [0.08]	-0.68 [0.50]	24	2.17 [0.14]	-0.31 [0.76]
	FUNCAS Panel	24	-0.85 [0.10]	-0.56 [0.58]	24	2.14 [0.11]	0.66 [0.51]
Employment	Government	24	-0.35 [0.12]		24	1.09 [0.10]	
	AIReF	24	-0.79 [0.01]	0.81 [0.43]	24	0.96 [0.36]	0.27 [0.79]
	Bank of Spain	24	-0.35 [0.32]	0.09 [0.93]	24	1.23 [0.07]	-0.48 [0.64]
	European Commission	24	-0.34 [0.06]	-1.35 [0.19]	24	0.51 [0.48]	0.70 [0.49]
	FUNCAS Panel	24	-0.25 [0.23]	-0.83 [0.41]	24	0.76 [0.26]	1.28 [0.21]

Source: AIReF, Ministry of Economic Affairs and Digital Transformation, Bank of Spain, European Commission and FUNCAS.

ANNEX 1. TABLE 2.

DETERMINATION OF LARGE, SIGNIFICANT AND SYSTEMATIC ERRORS

		Current year										Following year										
		2018		2019		2020		2021		2022		2018		2019		2020		2021		2022		
		Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	
Gross Domestic Product	FORECAST	OBSERVED																				
	FORECAST	2,6	2,6	2,0	2,0	-10,8	-10,8	5,1	5,1	5,5	5,5	2,6	2,6	2,0	2,0	-10,8	-10,8	5,1	5,1	5,5	5,5	
	ERROR	2,7	2,6	2,2	2,1	-9,2	-11,2	6,5	6,5	4,3	4,4	2,5	2,3	2,4	2,3	1,9	1,8	6,8	9,8	7,0	7,0	
	ERROR	Panel [average]	2,7	2,7	2,2	2,2	-9,5	-12,0	5,9	6,2	4,3	4,2	2,3	2,7	2,4	2,3	1,9	1,8	6,2	7,3	5,8	6,2
	ERROR	Panel [Quartile 1]	2,7	2,6	2,1	2,1	-10,3	-12,7	5,6	6,0	4,1	4,1	2,2	2,6	2,3	2,2	1,9	1,8	5,6	6,0	5,2	5,8
Private Consumption	FORECAST	OBSERVED																				
	FORECAST	2,3	2,3	0,9	0,9	-12,1	-12,1	4,6	4,6	4,3	4,3	2,3	2,3	0,9	0,9	-12,1	-12,1	4,6	4,6	4,3	4,3	
	ERROR	2,0	2,3	1,9	0,9	-8,8	-12,6	7,3	8,0	4,1	1,2	2,4	1,8	1,8	1,9	1,6	1,2	4,7	10,7	6,9	6,9	
	ERROR	Panel [average]	2,3	2,3	2,0	1,6	-10,9	-13,7	6,8	7,7	3,0	2,2	2,1	2,3	1,9	1,8	1,8	1,5	7,0	7,7	5,4	5,5
	ERROR	Panel [Quartile 1]	2,2	2,2	1,9	1,5	-11,3	-14,9	6,2	6,6	2,4	1,6	1,9	2,2	1,8	1,8	1,6	1,4	5,4	6,3	4,5	4,6
Public Consumption	FORECAST	OBSERVED																				
	FORECAST	2,1	2,1	2,3	2,3	3,8	3,8	3,1	3,1	-0,9	-0,9	2,1	2,1	2,3	2,3	3,8	3,8	3,1	3,1	-0,9	-0,9	
	ERROR	1,1	1,9	1,9	2,0	2,5	6,3	2,5	2,5	2,0	-1,0	0,7	0,7	1,2	1,7	1,5	1,5	1,8	2,6	1,5	1,5	
	ERROR	Panel [average]	1,4	1,8	2,0	1,9	4,9	4,7	3,7	2,8	1,2	-0,1	1,0	1,1	1,3	1,7	1,6	1,6	1,0	1,3	2,0	2,1
	ERROR	Panel [Quartile 1]	1,2	1,7	1,8	1,7	4,3	4,0	3,0	2,4	0,7	-1,0	0,7	0,8	1,1	1,4	1,3	1,4	-0,6	0,3	1,1	1,4



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		Current year										Following year									
		2018		2019		2020		2021		2022		2018		2019		2020		2021		2022	
		Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn
Gross Fixed Cap. Form.	FORECAST	OBSERVED																			
	FORECAST	5,3	5,3	2,7	2,7	-11,4	-11,4	4,3	4,3	4,3	4,3	5,3	5,3	2,7	2,7	-11,4	-11,4	4,3	4,3	4,3	4,3
	ERROR	4,7	5,3	4,0	3,1	-25,5	-17,5	10,3	7,1	9,3	5,1	2,6	3,4	4,4	4,4	3,5	3,0	16,7	14,2	12,4	12,2
	ERROR	4,4	4,8	3,9	3,4	-20,6	-17,8	7,1	6,7	6,2	7,0	3,4	4,0	3,9	4,3	3,4	3,2	8,1	10,2	9,1	9,7
	ERROR	4,1	4,4	3,6	2,8	-25,5	-20,3	5,2	5,6	4,9	5,5	2,9	3,7	3,7	3,8	2,9	2,8	5,1	6,5	7,3	7,9
Exports	FORECAST	4,6	5,1	4,1	3,9	-17,5	-15,4	8,4	7,4	7,3	8,4	3,9	4,4	4,1	4,6	3,7	3,5	10,8	12,7	10,4	10,8
	FORECAST	-0,6	0,0	1,4	0,4	-14,1	-6,1	6,0	2,8	5,0	0,8	-2,6	-1,9	1,7	1,7	14,9	14,4	12,4	9,9	8,1	7,9
	ERROR	-0,9	-0,5	1,2	0,7	-9,2	-6,5	2,8	2,3	1,9	2,7	-1,8	-1,2	1,2	1,6	14,8	14,5	3,8	5,8	4,8	5,4
	ERROR	-1,2	-0,9	0,9	0,1	-14,1	-9,0	0,8	1,3	0,6	1,2	-2,4	-1,6	1,0	1,1	14,3	14,2	0,8	2,1	3,0	3,6
	ERROR	-0,6	-0,2	1,5	1,2	-6,1	-4,0	4,0	3,0	3,0	4,1	-1,3	-0,8	1,5	1,9	15,1	14,9	6,4	8,3	6,1	6,5
Imports	FORECAST	2,3	2,3	2,3	2,3	-20,2	-20,2	14,7	14,7	14,9	14,9	2,3	2,3	2,3	2,3	-20,2	-20,2	14,7	14,7	14,9	14,9
	FORECAST	4,8	3,2	2,7	1,7	-27,1	-22,7	9,2	10,0	7,8	17,9	4,9	5,1	4,6	3,4	2,8	2,3	11,6	18,0	10,3	10,3
	ERROR	4,4	2,9	2,6	1,6	-21,0	-21,6	10,2	10,9	10,6	13,2	4,2	4,9	4,3	3,6	2,8	2,4	11,4	13,8	11,0	12,3
	ERROR	3,8	2,5	2,0	1,4	-25,6	-24,0	8,1	8,9	9,3	11,7	3,9	4,5	4,0	3,3	2,2	2,1	9,3	11,1	9,0	10,5
	ERROR	4,9	3,3	3,0	1,9	-16,5	-19,8	11,5	12,2	11,8	13,6	4,8	5,0	4,7	4,2	3,4	2,6	14,0	15,6	12,8	13,6
	FORECAST	2,5	0,9	0,4	-0,6	-6,9	-2,5	-5,5	-4,7	-7,1	3,0	2,6	2,8	2,3	1,1	23,0	22,5	-3,1	3,3	-4,6	-4,6
	FORECAST	2,2	0,6	0,3	-0,6	-0,8	-1,4	-4,6	-3,9	-4,3	-1,7	2,0	2,6	2,1	1,3	23,0	22,6	-3,3	-1,0	-4,0	-2,7
	ERROR	1,6	0,2	-0,2	-0,9	-5,4	-3,8	-6,6	-5,8	-5,6	-3,2	1,7	2,2	1,7	1,0	22,4	22,3	-5,4	-3,6	-5,9	-4,4
	ERROR	2,6	1,1	0,8	-0,4	3,7	0,4	-3,3	-2,6	-3,1	-1,3	2,5	2,7	2,5	1,9	23,6	22,8	-0,7	0,9	-2,2	-1,4
	ERROR	3,5	3,5	0,7	0,7	-15,8	-15,8	13,9	13,9	7,7	7,7	3,5	3,5	0,7	0,7	-15,8	-15,8	13,9	13,9	7,7	7,7
	FORECAST	4,1	4,0	3,1	0,1	-31,0	-20,0	10,3	10,3	9,1	9,9	4,1	4,1	4,2	3,8	2,9	2,0	9,3	17,1	10,0	10,0
	FORECAST	4,1	3,1	3,3	1,0	-22,7	-18,9	10,5	11,4	7,8	8,5	4,1	4,3	4,1	3,8	3,3	2,6	9,6	12,5	9,4	10,2
	ERROR	4,0	2,6	2,7	0,4	-28,1	-21,5	8,7	10,3	6,7	7,5	3,4	3,9	3,6	3,2	2,7	2,0	7,0	9,0	7,5	7,6
	ERROR	4,5	3,6	3,6	1,2	-17,9	-17,7	12,5	12,4	9,0	9,6	4,7	4,6	4,5	4,1	3,6	3,1	12,4	14,9	11,4	11,7
	ERROR	0,6	0,5	2,4	-0,6	-15,2	-4,2	-3,6	-3,6	1,4	2,2	0,7	0,6	3,5	3,1	18,7	17,8	-4,6	3,2	2,3	2,3
	FORECAST	0,6	-0,3	2,5	0,2	-6,9	-3,2	-3,5	-2,6	0,1	0,8	0,6	0,8	3,3	3,1	19,0	18,3	-4,3	-1,4	1,6	2,5
	ERROR	0,5	-0,8	2,0	-0,3	-12,3	-5,8	-5,3	-3,6	-1,0	-0,2	0,0	0,5	2,9	2,5	18,5	17,8	-6,9	-4,9	-0,3	-0,1
	ERROR	1,0	0,1	2,9	0,5	-2,1	-1,9	-1,5	-1,5	1,2	1,9	1,3	1,1	3,8	3,4	19,4	18,9	-1,5	0,9	3,6	4,0
	ERROR																				

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Employment		Current year										Following year										
		2018		2019		2020		2021		2022		2018		2019		2020		2021		2022		
		Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	
	OBSERVED	2,5	2,5	2,3	2,3	-7,5	-7,5	6,6	6,6	3,9	3,9	2,5	2,5	2,3	2,3	-7,5	-7,5	6,6	6,6	3,9	3,9	
	FORECAST																					
	Government	2,5	2,5	2,1	2,3	-9,7	-8,4	4,0	4,0	3,0	2,9	2,5	2,4	2,3	2,0	1,8	2,0	5,7	7,2	2,7	2,7	
	Panel [average]	2,4	2,4	1,9	2,2	-8,2	-8,1	3,7	4,9	2,8	3,3	2,0	2,3	2,0	1,9	1,7	1,6	4,7	3,9	3,5	3,5	
	Panel [Quartile 1]	2,3	2,4	1,8	2,1	-10,0	-9,1	2,4	4,0	2,6	2,9	1,8	2,3	1,9	1,9	1,5	1,6	2,9	2,2	2,7	2,7	
	Panel [Quartile 3]	2,5	2,5	2,1	2,3	-6,0	-6,2	4,6	5,5	3,2	3,7	2,2	2,4	2,2	2,0	1,7	1,7	5,6	5,5	4,0	4,1	
	ERROR																					
	Government	0,0	0,0	-0,2	0,0	-2,2	-0,9	-2,6	-2,6	-0,9	-1,0	0,0	-0,1	0,0	-0,3	9,3	9,5	-0,9	0,6	-1,2	-1,2	
	Panel [average]	-0,1	-0,1	-0,3	-0,1	-0,7	-0,6	-3,0	-1,8	-1,1	-0,6	-0,5	-0,2	-0,2	-0,3	9,1	9,1	-2,0	-2,7	-0,4	-0,4	
	Panel [Quartile 1]	-0,2	-0,1	-0,5	-0,2	-2,5	-1,6	-4,3	-2,6	-1,3	-1,0	-0,8	-0,2	-0,4	-0,4	9,0	9,1	-3,7	-4,5	-1,2	-1,2	
	Panel [Quartile 3]	0,0	0,0	-0,2	0,0	1,5	1,3	-2,0	-1,1	-0,7	-0,2	-0,4	-0,1	0,0	-0,3	9,2	9,2	-1,0	-1,2	0,1	0,2	

Note: Bold indicates that the error is large and shaded that it is also unjustified, i.e. that it is significant.
Source: AIReF and Ministry of Economic Affairs and Digital Transformation.

ANNEX 1. TABLE 3. LARGE AND SIGNIFICANT ERRORS

	2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		
	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	
Current year																					
Gross Domestic Product	L	-	L	-	L	S	-	S	-	-	-	-	S	-	-	L	S	S	-	L	
Private Consumption	-	-	L	-	-	-	L	-	-	-	S	-	-	L	L	-	-	L	S	S	
Public Consumption	-	-	-	-	S	S	-	-	-	-	S	-	-	L	S	S	L	-	S	L	
Gross Fixed Capital Formation	-	-	-	L	L	L	S	S	S	-	L	L	-	-	-	-	S	-	S	L	
Exports	-	-	-	S	-	-	-	-	S	-	-	-	-	-	L	-	-	-	S	S	
Imports	-	L	-	-	-	-	S	S	-	-	S	-	S	L	-	-	S	S	S	S	
Employment	-	-	-	-	L	-	-	-	L	S	-	-	-	-	-	-	-	-	-	S	
Following year																					
Gross Domestic Product	-	L	-	-	-	-	L	L	-	-	L	S	-	-	-	-	-	S	S	S	
Private Consumption	L	-	-	-	L	L	L	-	-	-	L	S	-	-	L	L	L	S	S	S	
Public Consumption	-	L	-	L	L	L	S	S	S	-	S	S	-	-	-	-	L	-	-	-	
Gross Fixed Capital Formation	L	L	-	L	-	L	S	-	-	-	S	S	S	-	-	-	S	S	S	S	
Exports	S	S	-	-	-	-	-	S	S	S	S	S	-	-	-	-	-	S	-	S	
Imports	S	L	L	-	-	-	-	-	S	S	-	-	-	-	-	-	-	S	-	-	
Employment	L	L	-	-	-	-	L	L	-	-	L	-	L	-	S	S	L	L	S	-	

S = Significant Errors, L=Large Errors.
Source: AIReF

ANNEX II. AQM MODELS

LONG-TERM EQUATION	PRIVATE CONSUMPTION	SHORT-TERM EQUATION
Gross disposable income of households and NPISHs (volume) (log)	0,294	Gross disposable income of households and NPISHs (volume) (dlog) 0,110
Household financial wealth. Volume (log)	0,131	Lending to households for consumption. Volume (dlog),(lag 3) 0,051
Household wealth. Volume (log)	0,147	Employment rate (differences) 0,006
Lending to households for consumption. Volume (log),(lag 3)	0,056	dummy COVID ST -0,082
Money market interest rate - 3-month deposits - Euro area. Real (levels)	-0,004	dummy97q4 0,028
DUMMY_COVID_LT	-1,135	dummy98q4 0,028
Constant	1,715	dummy19q3 0,026
		MCE (-1) -0,339
<i>1995T1-2021T4 sample</i>		
INVESTMENT IN EQUIPMENT		
GDP Volume (log), (delay 4)	0,574	Industry Confidence Index (differences) 0,032
Industry Confidence Index (Levels)	0,026	Lending to resident companies. Balance. Real (dlog) 0,414
Lending to resident companies. Balance. Real (log)	0,158	Capacity utilisation (differences) 0,004
Long-term interest rates Real (levels)	-0,021	Dummy IPI_Covid 1,056
Capacity utilization (Levels)	0,022	dummy09q1_09q2 -0,096
Effective corporate income tax rate (log)	-0,131	dummy18q2 0,090
dummy99q2_00q1	0,091	Long-term error -0,285
<i>1995T1-2021T4 sample</i>		
INVESTMENT IN CONSTRUCTION		
Price of Square Metro Housing INE. Real (log)	0,173	Price of Square Metro Housing INE. Real (dlog) 0,096
Unemployment rate (levels)	-0,024	Unemployment rate (differences) -0,016
Lending to households Housing. Volume (log),(lag 4)	0,176	Lending to households Housing. Volume (dlog) 0,254
Household financial wealth. Volume (log)	-0,129	dummy99q1 -0,038
Confidence in the Construction Sector (Levels)	0,001	dummy13q2 -0,026
DUMMY_COVID_LT	-0,518	dummy14q1 0,048
Constant	4,127	dummy09q1_11q4 -0,017
		DUMMY_COVID_ST -0,034
		Long-term error -0,327
<i>1995T1-2021T4 sample</i>		
EXPORTS		
Spanish export markets (log)	0,934	Spanish export markets (dlog) 0,586
Nominal effective exchange rate vs. developed countries (log),(lag 3)	-0,541	Nominal effective exchange rate vs. developed countries (log),(lag 3) -0,315
Relative unit labour costs (log)	-0,298	dummy08q4_09q1 -0,054
Export volume expectations (levels)	0,001	dummy19q3 -0,030
DUMMY_COVID_LT	-0,761	DUMMY_COVID_ST 0,027
Constant	4,185	Long-term error -0,301
		Constant 0,004
<i>Sample 1999T1-2021T4</i>		
IMPORTS		
Demand for imports. Volume (log)	1,287	Demand for imports. Volume (dlog) 1,769
Relative price of imports (log)	-0,758	Relative import price (dlog) -0,284
DUMMY_COVID_LT	0,304	DUMMY_COVID_ST 0,000
Constant	2,188	dummy09q1 -0,058
		dummy_ft10q3 -0,005
		dummy19q3 0,026
		Long-term error -0,090
<i>Sample 1995Q1-2019Q4</i>		

PRIVATE EMPLOYEES		
GDP Volume (log)	1,900 GDP Volume (dlog)	1,050
Working age population. Total (log)	2,016 Compensation per real private employee (dlog)	-0,380
Private capital stock (log)	-1,231 Dummy ERTES	0,004
Compensation per real private employee (log)	-1,000 dummy09q2	-0,020
Dummy ERTES	0,025 dummy10q4_12q4	-0,013
	dummy19q1	0,016
	Long-term error	-0,055
<i>Sample 1995Q1-2019Q4</i>		
COMPENSATION PER EMPLOYEE. PRIVATE		
General CPI (log),(lag 1)	0,638 General CPI (dlog),(lag 1)	0,171
Productivity per employee (log)	0,255 Productivity per employee (dlog)	0,418
Salary per employee. Public (log)	0,226 Unemployment rate (differences)	-0,002
Effective rate of social contributions * Dummy after 2008q3 (levels)	0,002 DUMMY_COVID_ST	-0,029
Unemployment rate * Dummy financial crisis	-0,0004 dummy07q2_q4	0,009
DUMMY_COVID_LT	-0,126 dummy08q1_q3	0,020
	dummy15q3_18q2	-0,006
	Long-term error	-0,276
	Constant	0,004
<i>Sample 1995Q1-2019Q4</i>		
GROSS DISPOSABLE INCOME OF HOUSEHOLDS AND NPISHs		
Compensation of employees Total: Nominal (log)	0,523 Compensation of employees Total: Nominal (dlog)	0,634
Gross Operating Surplus Households and NPISHs Nominal (log)	0,267 Gross Operating Surplus Households and NPISHs Nominal (dlog)	0,262
IRPF proxy rate (levels)	-0,006 IRPF proxy rate (differences)	-0,008
Different Social Benefits STK. Nominal (log)	0,172 Different Social Benefits STK. Nominal (dlog)	0,128
Constant	1,299 Long-term error	-0,707
<i>1995Q1-2021Q4 sample</i>		
CORE CPI		
GDP Volume (log)	0,347 GDP Volume (dlog)	0,013
IVA effective rate (levels)	0,022 Unemployment rate (differences)	0,000
Unit labour costs (log)	0,549 Effective VAT rate (differences)	0,003
Dummy 2012q1 2012q4	0,037 Dummy after 2017q4	-0,004
Constant	0,128 Long-term error	-0,113
	Constant	0,010
<i>1997T1-2021T4 sample</i>		
HEADLINE CPI		
	Core CPI (dlog)	1,130
	Brent in EUR = Brent* exchange rate EUR/\$ (dlog)	0,020
	Dummy 1999q2	-0,009
	Dummy 2009q2	-0,006
<i>1997T1-2021T4 sample</i>		
GDP DEFLATOR		
	Headline CPI (dlog)	0,379
	House Price INE. Nominal (dlog, lagged one period)	0,082
	IPRI capital goods (dlog, lagged three periods)	0,671
	Dummy12q4	-0,010
	Dummy13q1	0,013
	Dummy15q1	0,009
<i>Sample 2000T1-2021T4</i>		