REPORT ON THE MAIN BUDGETARY LINES AND DRAFT BUDGET OF THE GENERAL GOVERNMENT FOR 2022

REPORT 48/21

AIReF
Autoridad Independiente de Responsabilidad Fiscal

The Independent Authority for Spanish Fiscal Responsibility, AAI (AIReF) was founded with the mission of overseeing strict compliance with the principles of budgetary stability and financial sustainability set out in Article 135 of the Spanish Constitution.

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EXECUTIVE SUMMARY

The Independent Authority for Fiscal Responsibility, AAI (AIReF) is required to issue a report on the main lines of the draft budgets of the General Government (GG) sub-sectors for 2022. Previously, AIReF issued on September 21st its endorsement of the macroeconomic forecasts at the request of the Government. This report analyses the draft General State Budget (GSB) for 2022, presented on October 13th, the Budgetary Plan submitted to the European Commission on October 15th, the main lines of the GG budget and updates the macroeconomic forecasts used in the issuance of the endorsement of the GSB forecasts. This report will subsequently be supplemented by the individual reports of the Autonomous Regions (ARs) and the sub-sector of the Local Governments (LGs).

As a result of the COVID-19 crisis, the budgetary stability targets remain on hold following the new activation of the escape clause provided for in Article 11.3 of Organic Law 2/2012 on Budgetary Stability and Financial Sustainability and approved by the Lower House of the Parliament, following the report by AIReF. In this context, AIReF's fiscal oversight remains fully in force, becoming even more important as a guarantor of the sustainability of the public finances.

The macroeconomic scenario of the GSB for 2022

On September 21st, AIReF endorsed the Government's macroeconomic scenario that accompanies the GSB. This scenario forecasts GDP growth of 6.5% and 7% in 2021 and 2022, with employment growth rates of 4% and 2.7%, respectively, and a reduction in the unemployment rate to 14.1% of the active population. AIReF endorsed this scenario, considering that both the expected path of GDP and the assumptions on which it is based were feasible. In fact, AIReF's forecasts at that time provided for GDP growth similar to the Government's estimates – 6.4% in 2021 and 6.8% in 2022. However, it warned of downside risks in 2022 related to the evolution of the pandemic, the

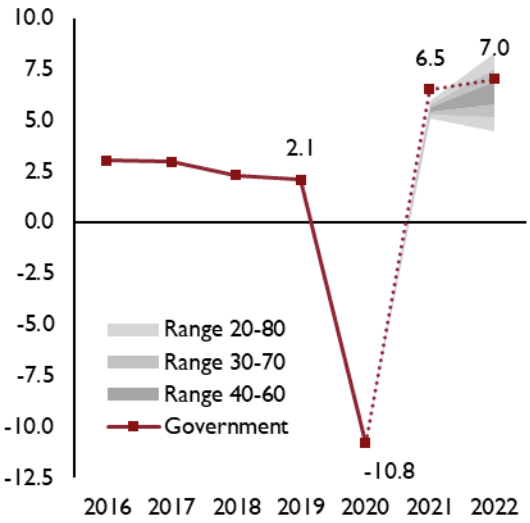
emergence of disruptions and supply problems in productive processes at a global level and the macroeconomic impact of the RTRP.

As mentioned in the endorsement of the Government's estimates, after receiving relevant statistical and economic information, the scenario serving as the basis for judging the degree of realism of the budget forecasts has been revised.

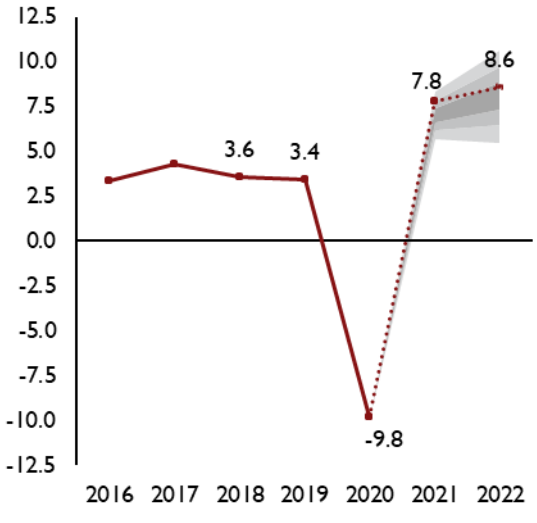
Therefore, in this report AIReF presents a new scenario that includes a downward revision of its GDP growth forecasts for 2021 and 2022, to 5.5% and 6.3%, respectively. This revision is made mainly as result of two facts. Firstly, the quarterly accounting figures published by the National Statistics Institute (Spanish acronym: INE) at the end of September after issuance of the endorsement are incorporated; these figures have led to a notable downward revision of estimated growth for the second quarter of the year with implications for the expected growth path. Secondly, AIReF's scenario now incorporates the materialisation of some of the risks that were foreseen in September. In particular, these include the rise in energy prices, which has become significantly more pronounced in September and the shortage of industrial supplies that has led to production disruptions in some specific sectors. This scenario envisages an impact of the RTRP of 0.7 percentage points in 2021 and 2.5 percentage points in 2022. These contributions remain unchanged with respect to the September forecasts due to a lack of additional information.

According to AIReF, the government scenario underpinning the budget is still achievable as it falls within the confidence bands drawn from the probabilistic analysis, but downside risks predominate. In particular, a further aggravation of the pandemic cannot be ruled out given the uneven vaccination rates in the world, the possibility of new variants or loss of vaccine effectiveness. Developments in the energy and raw material markets may delay the recovery in investment and create inflationary tensions in addition to those observed thus far. Finally, an incomplete, delayed or inefficient implementation of the RTRP would drain the stimulus necessary for ensuring the return to pre-crisis GDP levels.

GDP IN VOLUME TERMS. RATE OF CHANGE (%)



NOMINAL GDP. RATE OF CHANGE (%)



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

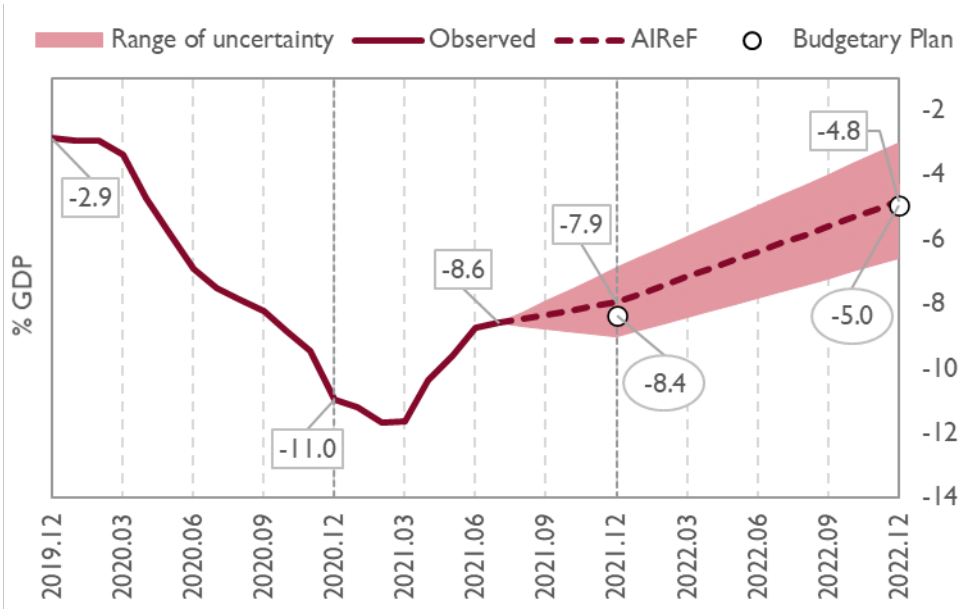
Budgetary scenario of GG

For its central scenario in the report published today, AIReF estimates a General Government deficit of 4.8% of GDP in 2022, after standing at 7.9% in 2021. Both of these figures are lower than those included in the Budgetary Plan, 8.4% for 2021 and 5% for 2022. The Budgetary Plan does not include the impact of the REACT-EU funds on General Government revenue and expenditure and assumes a neutral impact on the deficit. However, AIReF, in line with the case of other structural funds, considers that the timing difference between execution of the expenditure and allocation of its revenue, when the corresponding certification is sent to the Commission, implies a higher deficit in 2021 and a lower deficit in 2022, maintaining the neutrality over the years as a whole during which the funds apply. Therefore, excluding this effect, the deficit would be 7.7% of GDP in 2021 and 5% in 2022, which more faithfully reflects the underlying fiscal position of the General Government. In addition, the Recovery, Transformation and Resilience Plan (RTRP) has a neutral impact on the deficit, irrespective of the pace of execution of the associated revenue and expenditure.

AIReF estimates a reduction in the deficit of 2.7 points in 2022, excluding the impact of the REACT-EU funds, which is lower than the 3.4-point reduction included in the Budgetary Plan. This reduction in the deficit would be mainly driven by the progressive withdrawal of the measures implemented to mitigate the effects of the COVID–19 crisis. The tax changes included in the GSB for 2021 also have an impact on the reduction of the deficit. In addition, the economic recovery translates into higher revenue. However, its contribution to the reduction of the deficit is more than offset by the underlying

evolution of expenditure, determined both by baseline expenditure and by the decisions and measures included in the General Government budget.

EVOLUTION OF GENERAL GOVERNMENT BALANCE



AIReF forecasts that revenue will stand at 40.2% of GDP in 2022, excluding revenue from REACT-EU and the RTRP, compared with the 39.8% forecast in the Budgetary Plan. This difference is entirely due to the denominator effect as AIReF's GDP forecast is lower in nominal terms than that of the Government and the revenue forecast by AIReF in nominal terms is slightly lower than that included in the Budgetary Plan. Including the REACT-EU and RTRP funds, revenue would stand at 42.6% of GDP in 2022. Tax revenue moderates its growth in 2022, resuming an elasticity with respect to macroeconomic variables in line with the historical average, following the high rates recorded in 2021. By component, AIReF estimates lower growth in indirect taxes and social contributions compared with the Budgetary Plan as a result of a more unfavourable macroeconomic scenario. AIReF also forecasts a more negative development of other revenue. In contrast, AIReF expects a more positive evolution of direct taxes.

Expenditure, excluding REACT-EU and the RTRP, will stand at 45.2% in 2022, according to AIReF's estimates, compared with 44.7% in the Budgetary Plan. The progressive withdrawal of the measures implemented in 2021 will be partially offset by the evolution of expenditure set out in the draft budget and consolidation of part of the healthcare expenditure. In nominal terms, expenditure would fall by 1.6% according to AIReF's estimates, compared with 2.1% in the Budgetary Plan. This evolution has been conditioned by the inflation forecasts for 2022, which in the GSB have been translated into a 2% increase in the salary of public employees across the GG and the revaluation of pensions according to the inflation expected for 2021. In addition, the

compensation for the difference between inflation and the approved pension revaluation of 0.9% in 2021 is also included. AIReF expects a higher level of expenditure in the components of public consumption and capital expenditure than that included in the Budgetary Plan, which is mainly offset by higher forecast savings in interest and unemployment benefits. The implementation of the RTRP and REACT-EU will place expenditure at 47.5% of GDP.

By sub-sector, the Central Government (CG) will continue to take on part of the deficit of the other sub-sectors, Social Security Funds (SSFs) and Autonomous Regions (ARs), through direct transfers. Furthermore, the implementation of the RTRP will affect all sub-sectors, even though it is also neutral for each of the authorities. With regard to the reference rates included in the Budgetary Plan, AIReF estimates similar forecasts for the CG and SSFs in 2022, while the positive impact of the REACT-EU funds will also allow the ARs to achieve the reference rate. Finally, AIReF estimates a surplus of 0.2 points in the LGs compared with the balanced budget forecast in the Budgetary Plan.

GG DEFICIT BY SUB-SECTOR IN % GDP

		2021		2022	
	2020	DBP	AIReF	DBP	AIReF
GG	**-11.0**	**-8.4**	**-7.9**	**-5.0**	**-4.8**
CG	-8.4	-6.3	-6.3	-3.9	-3.9
SSFs	-2.6	-1.5	-1.5	-0.5	-0.5
Ars	-0.2	-0.6	-0.4	-0.6	-0.6
LGs	0.3	0.0	0.3	0.0	0.2

Central Government

After analysing the GSB, AIReF estimates a deficit of 3.9% of GDP for the CG in 2022, after reaching 6.3% in 2021, in line with the forecast contained in the Budgetary Plan. The revenue forecasts contained in the draft GSB can be described as feasible insofar as they show a deviation from AIReF's estimates of less than 0.1 points of GDP, compared with 0.6 points in the previous year. Although the GSB still does not include a breakdown of the adjustments that would make it possible to reconcile the budgetary balance with the reference rate of the Budgetary Plan in national accounting terms, AIReF has made its own estimates for transferring the expenditure forecasts in the GSB to the national accounting headings.

In this regard, the draft GSB involves a reduction in CG expenditure of 1.1% compared with the year-end 2021 forecast, excluding the expenditure financed by the RTRP and REACT-EU. The increase in expenditure in the components of public consumption, social benefits and other expenditure is more than offset by the reduction in expenditure on interest, transfers to other GG sub-sectors, subsidies and gross fixed capital formation.

Social Security Funds

After reaching 1.5% of GDP in 2021, the deficit of the Social Security Funds will fall to 0.5% of GDP according to AIReF's estimates, in line with the Budgetary Plan. The reduction in the deficit is explained by the progressive withdrawal of measures such as the job retention schemes (ERTEs) and the cessation of activity of self-employed people, the recovery in employment and the increase in transfers from the CG to finance, on a structural basis, so-called "improper" expenditure. In addition, pension expenditure would grow to 4% with a revaluation above 2% in 2022, after including compensation for the higher expected inflation in 2021. Expenditure on unemployment would fall significantly, including the extension of ERTEs over the first two months of the year.

Autonomous Regions

The deficit of the regions will grow to 0.6% in 2022 from 0.4% at year-end 2021. This evolution is similar to that set out in the Budgetary Plan and more positive than that expected by the ARs as a whole in their main budgetary lines and draft budgets. This increase in the deficit is explained by a fall in revenue in 2022, excluding the effect of the REACT-EU funds and the RTRP, which is not fully offset by the gradual withdrawal of the pandemic-related measures and the positive effect of the REACT-EU funds. As a supplement to the sub-sector analysis contained in this report, AIReF will subsequently issue the individual reports on the ARs

Local Governments

Local Governments will record a surplus of 0.2% of GDP in 2022, after closing 2021 with a surplus of 0.3% of GDP. As is the case with the regions, AIReF will later issue a report on the Main Lines of the budgets of the local governments, which it analyses individually.

Challenges foreseen from perspective of sustainability of public finances

The debt-to-GDP ratio stood at 122.9% at the end of the first half of 2021, an increase of 27.4 points on the level at the end of 2019. The negative contribution caused by the strong contraction in GDP in 2020 is already starting to be offset by the strong economic recovery that is taking place in 2021 and that is expected to continue in the coming years with the support of the RTRP. This improvement in the ratio's denominator, together with the recovery in the cyclical component of the public balance and the gradual disappearance of the pandemic-related emergency measures, make it possible to project a 4.3-point reduction in the debt ratio for 2022, placing it at 115.7% of GDP, in line with the estimates presented by the Government (115.1%) and other international agencies such as the IMF (116.4%).

Beyond a certain improvement in the short-term fiscal situation, AIReF's projections show an unfavourable medium and long-term debt trend under a no-policy change scenario. The debt-to-GDP ratio will resume an upward path under the assumption of a no-policy change scenario with a constant structural primary deficit of around two and a half points, a situation that is significantly aggravated by adding structural expenditure related to an ageing population, with a projected debt ratio of close to 190% of GDP by the middle of the century.

A gradual and sustained reduction of the public deficit towards structural equilibrium, as reflected in Spanish law, will be necessary to bring the debt back to more comfortable levels. The expectations of a lasting low interest-rate horizon offer greater room to manoeuvre to address the return to a balanced budget in a manner that is not detrimental to growth.

Recommendations

Although fiscal rules are on hold at an EU and national level, the sustainability of public finances remains essential for economic recovery. Therefore, AIReF reiterates the recommendation to establish a national medium-term fiscal strategy that will act as fiscal guidance and will realistically and credibly ensure the financial sustainability of the General Government. The current situation, with an economic recovery that is buoyant but subject to various risks, once again reveals the need for the different GG sub-sectors to have medium-term strategies that integrate various elements, such as RTRP reforms and investments, consolidation of the recovery and reduction of the debt to less vulnerable levels.

The improvement in the healthcare and economic situation for 2021 is leading to a progressive withdrawal of the measures adopted to mitigate the effects of the COVID crisis and a recovery in tax revenue to pre-pandemic levels.

To the extent that this trend will continue in 2022, AIReF recommends that the entire GG should adopt the necessary measures so that the fiscal space left by the withdrawal of the measures to combat COVID and the positive evolution of revenue are fully passed on to reducing the public deficit. In particular, increases in structural expenditure that do not have a permanent source of funding should be avoided.

Furthermore, as in previous reports, AIReF highlights the importance of raising transparency in the budgetary process and it therefore maintains the recommendations to include information in terms of national accounting in the General State Budget. In addition, in relation to the Budgetary Plan, AIReF recommends that it should incorporate all the measures planned by the Government, as well as the impact of the REACT-EU funds and the RTRP on GG revenue and expenditure.

1. INTRODUCTION

On October 13th, the Government presented the draft 2022 GSB to Parliament and, shortly thereafter, on October 15th, submitted the 2022 Budgetary Plan to the European institutions. Following approval of the Draft 2022 GSB by the Council of Ministers on October 7th, it was submitted on October 13th to Parliament where it is currently going through is parliamentary passage. In addition, on October 15th, the Government sent the Budgetary Plan for 2022 to the European Commission for its assessment.

On September 21st, AIReF issued its endorsement of the macroeconomic projections underpinning the draft 2022 GSB. The law on the establishment of AIReF provides that AIReF must issue a report on the macroeconomic forecasts incorporated in the draft budgets of all public authorities, indicating whether it gives its endorsement. For this purpose, AIReF issued its macroeconomic endorsement at the request of the Government, and this report completes AIReF's analysis.

This report completes the analysis of the macroeconomic forecasts contained in the draft 2022 GSB. AIReF revises downwards its GDP growth forecasts for 2021 and 2022, to 5.5% and 6.3%, respectively. This revision is due to the incorporation, firstly, of the Quarterly national accounting figures of the National Statistics Institute (Spanish acronym: INE) and, secondly, the materialisation of some of the risks that were looming in September. Nevertheless, the Government's scenario underpinning the budget remains within the confidence bands that emerge from the probabilistic analysis performed around AIReF's new forecasts.

AIReF also has the legal mandate to report on the draft GSB and the main lines of the budgets of the autonomous regions and local governments with regard to whether they are in line with fiscal rules. The Organic Law on Budgetary Stability and Financial Stability and the Law on the Establishment of AIReF and its implementing regulation set out AIReF's mandate to report on the draft GSB and the main budgetary lines with regard to whether they are in line with the spending rule and budgetary stability and public debt targets.

For 2022, as for 2020 and 2021, there are, on an exceptional basis, no fiscal rules in force at both an EU and a national level. In October 2020, the fiscal rules for 2020 and 2021 were suspended as Parliament considered the pandemic to be classified as an emergency situation as provided for in Article 11.3 of the Organic Law on Budgetary Stability and Financial Stability. On July 27th this year, the Council of Ministers requested that Parliament confirm the continuation of the extraordinary emergency situation resulting from the pandemic. Parliament, following a report from AIReF on July 29th, confirmed this situation on September 13th. In this context, fiscal rules remain on hold for 2022.

In place of the rules, the Government set a reference deficit for the various GG sub-sectors for 2022. On July 27th, the Council of Ministers set a reference deficit for the General Government and for each one of the sub-sectors for 2022 (see TABLE 1). This reference coincides with the deficit forecast for 2022 included in the 2021-2024 Stability Programme Update published in April, except in the distribution by sub-sector as it assigns a deficit for the CG that is 0.4% of GDP higher, to the detriment of the SSFs. This is in line with the process of the CG gradually assuming the financing of non-contributory social security expenditure in compliance with the Toledo Pact. At any event, this reference is not a restriction on the deficit and therefore any failure to comply with it does not lead to application of the corrective measures provided for in the Organic Law on Budgetary Stability and Financial Stability. No references have been set with regard to debt and expenditure, which are the other fiscal variables on which the debt target and expenditure rule, respectively, act.

TABLE 1. GENERAL GOVERNMENT REFERENCE DEFICIT FOR 2022 (%GDP)

(% GDP)

	Reference deficit rate for 2022
Central Government (CG)	3.9
Autonomous Regions (ARs)	0.6
Local Government	0.0
Social Security Funds (SSFs)	0.5
General Government (GG)	**5.0**

The evaluation set out in this report is performed from a macroeconomic and budgetary perspective. For this purpose, the analysis is divided into six main blocks. Following this introduction, Section 2 sets out the content and scope of the report. Section 3 begins with a review of recent economic developments, followed by an assessment of the macroeconomic scenario of the draft 2022 GSB, and concludes with an analysis of the main risks. Section 4 analyses in detail the evolution of revenue and expenditure in the General Government as a whole and in each one of the sub-sectors. This section finishes with the measures contained in the draft 2022 GSB, the expected impact of the NGEU funds and an analysis of the contingent liabilities and fiscal risks for 2022. Section 5 then assesses the evolution and sustainability of public debt. Finally, Section 6 presents the recommendations emerging from the analysis conducted.

2. PORPOUSE AND SCOPE

The purpose of this report is to assess the main lines of the GG budgets for 2022 and, in particular, the draft 2022 GSB from the perspective of whether it is in line with the reference deficit. AIReF prepares this report mainly using the information set out in the draft 2022 GSB, in addition to other available information. Although the 2022 GSB is limited to the CG and the SFFs in budgetary terms, the information contained plays a determining role over the other tiers of government both through their financing and through the establishment of basic legislation on essential matters such as compensation of employees. Therefore, with the aim of providing a comprehensive overview, AIReF assesses the GG as well as each one of the sub-sectors with regard to the reference deficit. In addition, AIReF estimates the rate of change in computable expenditure for the purposes of the expenditure rule and the debt-to-GDP ratio for the purposes of debt sustainability, in order to show the evolution of these fiscal variables.

At a territorial level, the full updated information on the main lines of the budgets of the ARs and the LGs subject to individual analysis was received very late with respect to the deadlines granted. As of the report date, the lines of the Autonomous Regions of Aragon and Andalusia are not available, while those of Rioja have not been updated with the draft budget presented. Of the remaining regions, most of the information was received in the last week. As of the report date, only the draft 2022 budgets of the Autonomous Regions of Castile-La Mancha, Extremadura, Galicia and Rioja have been approved. In the case of the LGs that are individually monitored, the information received on the main lines of their budgets has also been significantly delayed. As of

the report date, the information on 15 of the LGs to be assessed is not complete.

AIReF will later complete the analysis of the territorial sub-sectors by issuing individual reports on the regions and a more extensive report on the local governments. The assessment of the regional and local sub-sectors included in this report will be completed, at a regional level, with the publication of the individual reports on the main lines of the autonomous regions for 2022. At a local level, a more extensive report will be published that will cover the individualised analysis of the 21 large local governments and the three provincial councils of the Basque Country, in addition to the local governments with significant sustainability risks according to AIReF's selection and classification methodology.

As in previous years, the assessment of the draft 2022 GSB has been conditioned by the lack of an initial budget in national accounting terms and national accounting adjustments. The draft 2022 GSB does not include information on the reconciliation of the budgetary balance with the reference deficit, which is measured in national accounting terms. This information was published from 2003 among the budgetary documentation, but stopped being published as from the 2017 GSB. Furthermore, the Economic and Financial Report of the Social Security published information in national accounting headings until 2017. This lack of information, contrary to EU legislation and the principle of transparency provided for in the Organic Law on Budgetary Stability and Financial Sustainability (Articles 6 and 27) significantly conditions AIReF's analysis. In addition to failing to publish the adjustments, an initial budget expressed in national accounting terms is not published either, which makes it extremely difficult to reconcile the two methodologies.

Similarly, the content of the 2022 Budgetary Plan is not sufficient to perform a proper analysis of fiscal policy. As AIReF noted in its Opinion on Fiscal Transparency in the General Government[1], the budgetary process is fragmented in practice, and it is not possible to ensure consistency between its main elements: the Stability Programme Update, the budgets of each public authority and the Budgetary Plan. Firstly, the Budgetary Plan does not reflect in an integrated manner the impact of the RTRP and REACT-EU funds on GG revenue and expenditure, while the draft GSB does include a granular breakdown of each of the actions financed with both mechanisms. Secondly, the Budgetary Plan still does not provide a breakdown of the headings of expenditure and revenue by tier of government, which makes it difficult to ensure consistency with the budgets of the different public authorities. Finally,

1 https://www.airef.es/wp-content/uploads/2021/05/CAMBIOS-OP/Opinion-Transparencia-Fiscal-.pdf

the Budgetary Plan also does not include the latest measures recently announced by the Government, such as changes to the Minimum Living Income or the impact of the reforms that are expected to be approved shortly within the framework of the RTRP, as is the case of the labour and pension reforms.

Furthermore, neither the 2022 GSB nor the 2022 Budgetary Plan contains a complete and up-to-date list of fiscal risks that may affect the deficit for the year. Greater transparency would be desirable. Although it may not be classified as a limitation on the scope, the GSB does not include information on possible liabilities faced by the CG resulting from contingent liabilities. AIReF especially warned about this lack of information in the report on the 2021 GSB as it considers that there are greater fiscal risks than in other years. This is because the ordinary risks are compounded by those generated as a consequence of the pandemic, particularly those relating to the guarantees granted to SMEs and self-employed workers to maintain the liquidity of the production structure. Neither is this information included in the Budgetary Plan, which is limited to partially reporting on the guarantees granted by the GG and its sub-sectors at the end of 2020.

3. EVALUATION OF THE MACROECONOMIC SCENARIO

Introduction

On September 21st, AIReF endorsed the Government's macroeconomic scenario that accompanies the draft General State Budget for 2022 (GSB). The macroeconomic scenario accompanying the GSB forecasts GDP growth of 6.5% in 2021 and 7% in 2022, with employment growth rates of 4% and 2.7%, respectively, and a reduction in the unemployment rate to 14.1% of the active population. AIReF endorsed this scenario, considering that both the expected path of GDP and the assumptions on which it is based are feasible. In fact, AIReF's forecasts at that time provided for GDP growth similar to the Government's estimates – 6.4% in 2021 and 6.8% in 2022. However, AIReF warned of downside risks in 2022 related to the evolution of the pandemic, the emergence of supply disruptions and problems in production processes at a global level and the macroeconomic impact of the Recovery, Transformation and Resilience Plan (RTRP). AIReF already announced that when preparing this report it would revise its forecasts so as to incorporate information from the Quarterly National Accounts and the Non-Financial Accounts of the Institutional Sectors that were published only a few days after issuance of its endorsement. In AIReF's opinion, the budget and the macroeconomic scenario underpinning it should be assessed with the most complete and up-to-date information available.

AIReF revises its GDP growth forecasts for 2021 and 2022 downwards, to 5.5% and 6.3%, respectively. This revision is the result of two factors: firstly, figures from the INE's Quarterly National Accounts are included, which resulted in a significant downward revision of growth estimated for the second quarter of the year. Secondly, AIReF's scenario now incorporates the materialisation of some of the risks that were foreseen in September. In particular, these include the rise in energy prices, which has become significantly more pronounced in

September and the shortage of industrial supplies that has led to production disruptions in some specific sectors. This scenario envisages an impact of the RTRP of 0.7 pp in 2021 and 2.5 pp in 2022. These contributions remain unchanged with respect to the September forecasts due to a lack of additional information.

Nevertheless, the Government's scenario underpinning the budget remains within the confidence bands that emerge from the probabilistic analysis performed around AIReF's new forecasts. Recent economic developments and the assessment of the Government's scenario are presented in greater detail in the following sections. Furthermore, three Boxes are presented: the first describes the developments in energy markets and presents an estimate of their possible impact on the Spanish economy; the second illustrates the aggravation and extension of the tensions related to the scarcity of some productive inputs in manufacturing; lastly, a box is included which discusses how to measure the contribution of fiscal policy to economic activity in the current context in which, on the one hand, part of this contribution is channelled through the RTRP which has a neutral impact on the structural balance measures that are traditionally used to approximate the fiscal impulse and, on the other hand, there are difficulties in distinguishing temporary measures from those of a structural nature.

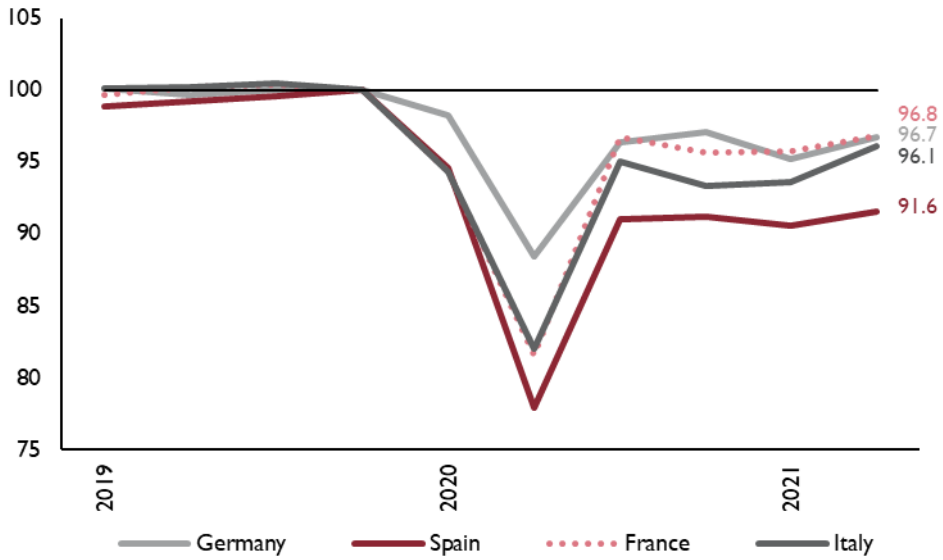
3.2 Recent economic developments

The most recent information from the National Accounts confirms that in the second quarter of 2021 the recovery of the Spanish economy continued, although at a significantly lower rate than initially estimated. As the National Statistics Institute (INE) has been warning, since the outbreak of the pandemic, the preparation of the economic accounts has been subject to an unprecedented challenge which means that the estimates are subject to larger-than-usual revisions. On September 23rd and 30th, the INE published the growth figures corresponding to the second quarter of 2021 and the Non-Financial Accounts of the Institutional Sectors, with a notable downward revision of the growth initially estimated for that period, down to 1.1% compared with the 2.8% initially estimated. These revisions extend to practically all demand aggregates and particularly to private consumption, and have notable implications for AIReF's forecast scenarios.

Compared with other European economies, the recovery of the Spanish economy is less vigorous, despite the good performance of the labour market. Not only was the fall in economic activity in Spain much more intense at the most serious times of the pandemic, but the economic recovery would be somewhat less robust. This lower dynamism is particularly evident in the second quarter of 2021 despite the gradual lifting of the mobility restrictions that took

place in that period and the recovery of the net affiliation levels of workers subject to job-retention schemes (Spanish acronym: ERTE).

FIGURE 1. GROSS DOMESTIC PRODUCT. VOLUME INDEX. BASE INDEX 2019Q4=100.



Source: Eurostat.

The materialisation of demand pent up over the periods of lockdown and mobility restrictions is the main lever on which the recovery of the Spanish economy relies, although its rate of growth is somewhat lower than initially estimated by the INE. Progress on the vaccination rollout[2] led to a gradual lifting of capacity and mobility restrictions and a recovery in household confidence, which was reflected in an increase in spending. According to INE estimates, in the second quarter of 2021 the gross saving rate of households and NPISHs was close to those recorded in 2019 (8.8% of Gross Disposable Income, compared with 8.3% recorded on average in 2019), far from the peaks reached during the lockdown (22.3%) and much lower than those observed in other economies in the euro area.

This behaviour of consumption and savings has been accompanied by a moderate contraction in household disposable income, which contrasts with the very favourable performance of employment. If confirmed, this might indicate that the savings accumulated during the lockdown are lower than initially estimated and that the momentum for a more intense recovery in private consumption over the coming months may be running out.

[2] By the end of June 2021, almost 40% of the population had been fully vaccinated and by mid-October more than 79% of the population had been vaccinated.

FIGURE 2. PRIVATE CONSUMPTION. BASE INDEX 2019Q4=100.

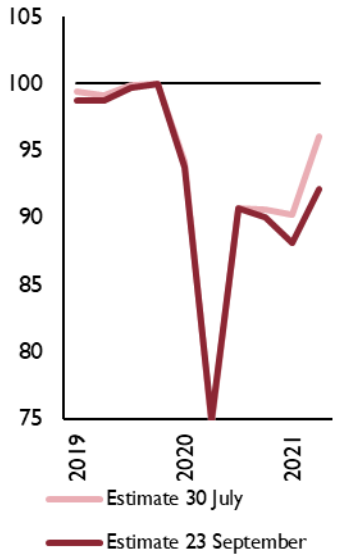


FIGURE 3. EUROPEAN COMPARISON OF THE GROSS SAVING RATE OF HOUSEHOLDS AND NPISH. (%GDI. CORRECTED FOR SEASONAL VARIATIONS AND CALENDAR EFFECTS)

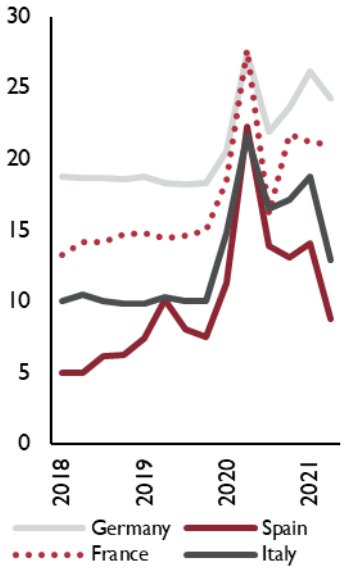
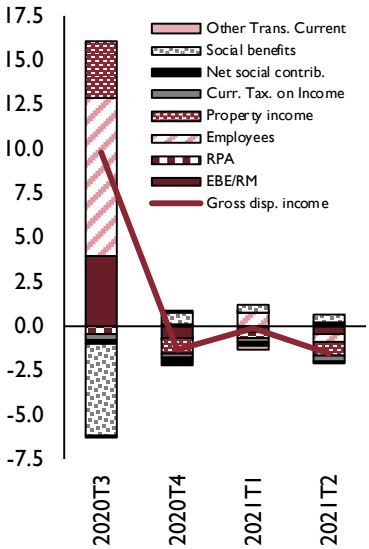


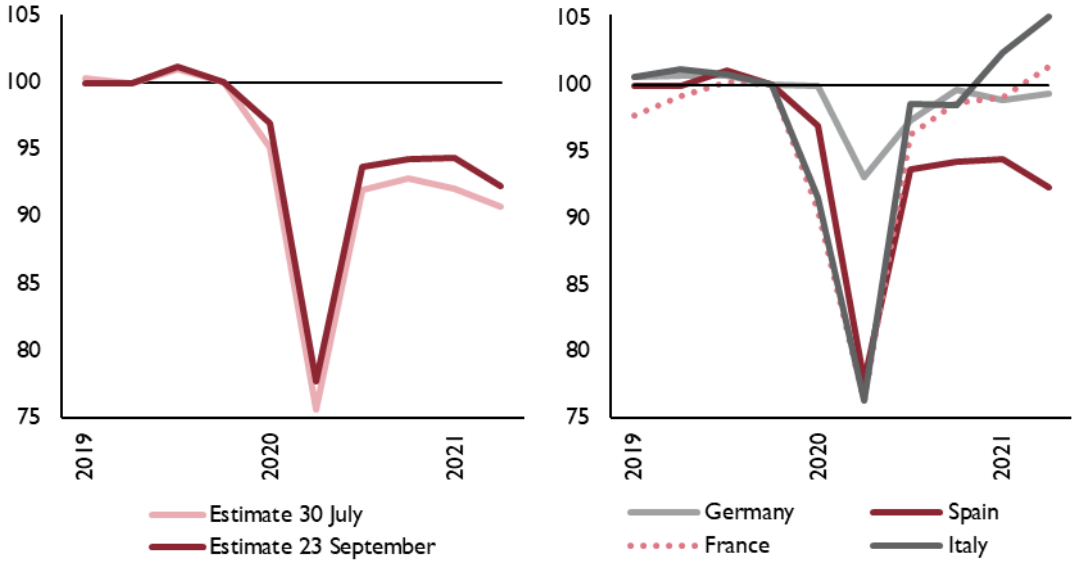
FIGURE 4. BREAKDOWN OF THE QUARTER-ON-QUARTER RATE OF CHANGE IN GROSS DISPOSABLE INCOME OF HOUSEHOLDS AND NPISHS (%).



Sources: Eurostat, INE and AIReF based on INE data.

In contrast with the recovery in private consumption, investment has shown very depressed behaviour in the first half of 2021. In particular, both investment in equipment and construction contracted in the second quarter. This might reflect the uncertainty prevailing at the time with regard to the imminent outbreak of the fifth wave of the pandemic as well as a certain delay in investment projects by companies pending the start-up of the RTRP. The weakness of investment largely explains the lower dynamism of the Spanish recovery compared with other European economies.

FIGURE 5. GROSS FIXED CAPITAL FORMATION. BASE INDEX 2019Q4=100.



Sources: Eurostat and INE.

The recovery in exports and imports of goods and services is also more moderate than that observed in other euro area countries. The rapid and intense revival of world trade in goods once the initial phase of the pandemic passed, led by the demand of the Chinese economy, contributes towards explaining the speed of reactivation of Spanish foreign trade flows compared with previous crises. However, trade in services, especially tourism, has lagged behind until recently. This explains the lower relative growth of exports in countries such as Spain or France, where foreign tourism is particularly important.

FIGURE 6. EXPORTS OF GOODS AND SERVICES. INDEX BASE 2019Q4=100.

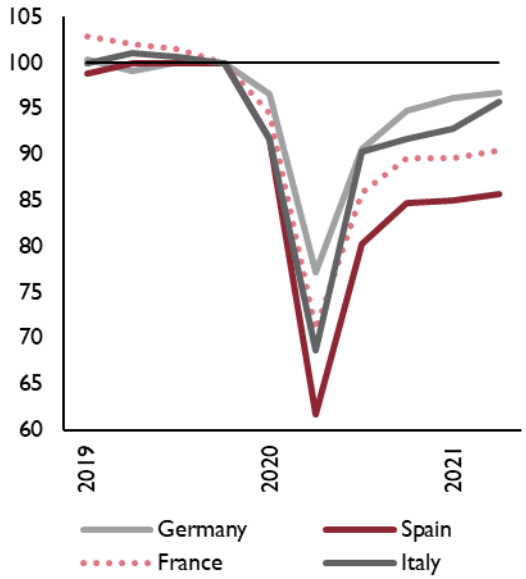
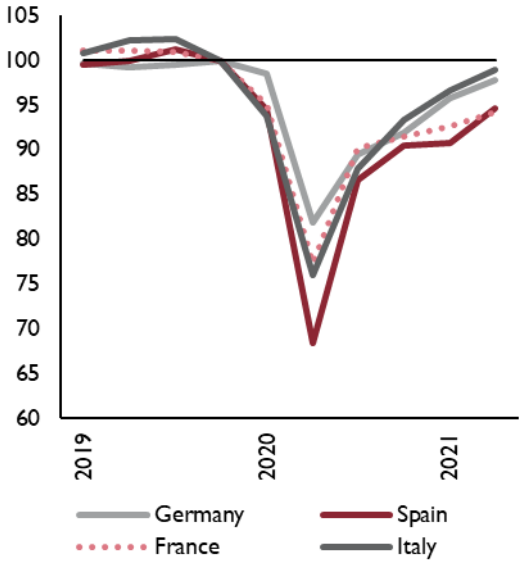


FIGURE 7. IMPORTS OF GOODS AND SERVICES INDEX BASE 2019Q4=100.



Sources: Eurostat and INE.

The most recent information for the third quarter of the year suggests that the growth in activity might have intensified even though the outbreak of a new wave of the pandemic, aggravated by the transmissibility of the Delta variant, made it necessary to maintain mobility restrictions at both a national and international level at the start of the summer. In particular, the figures for spending on credit cards point to a further expansion of household spending. Particular noteworthy is the normalisation of domestic tourist flows seen from July, which has been faster and more intense than forecast in the scenarios prepared by AIReF in April. The influx of foreign tourists during the summer season has also been more vigorous than expected, despite the fact that Spain remained in the area of extreme risk for much of the period. The forecasts of the MIPred model, which summarises the most significant information, place expected quarter-on-quarter growth in GDP in the third quarter of the year at 2%. However, it is expected that it will eventually be higher when the model incorporates the information corresponding to September, which has not yet been fully collected.

FIGURE 8. COMPARISON OF AIR PASSENGER TRANSPORT SCENARIOS. SPU VERSUS 2022 GSB. SAME MONTH OF 2019=100.

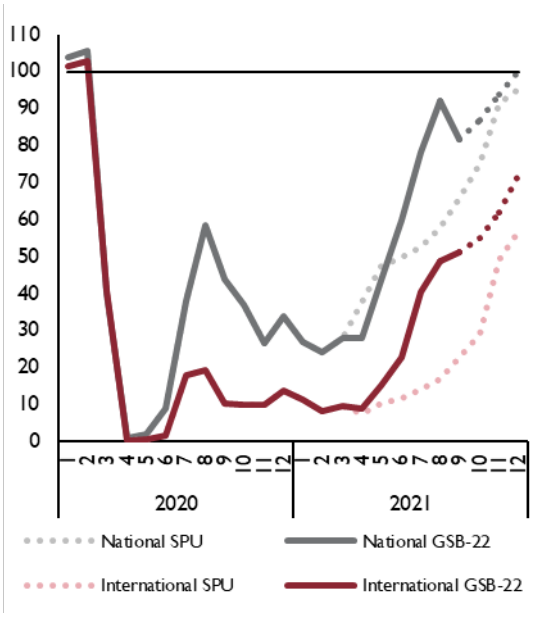
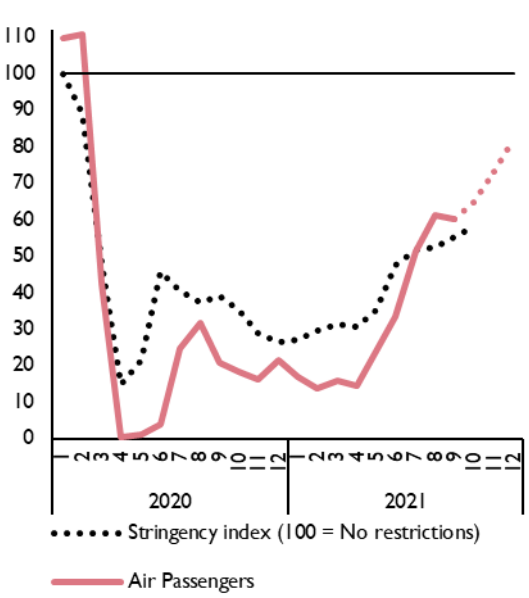


FIGURE 9. INDEX OF RESTRICTIONS[1] AND AIR PASSENGERS. SAME MONTH OF 2019=100.



Sources: Prepared by AIReF based on data from AENA and Our World in Data.
[1] Stringency index: calculated as 100 minus the index prepared by the University of Oxford on restrictions linked to the pandemic (Government Stringency Index) (100 would be equivalent to 0 restrictions).

The performance of the job market remains the fundamental support for the recovery in demand. The growth of Social Security affiliations to values close to those observed prior to the pandemic, the continuous reduction of workers affected by job-retention schemes and the reduction in the unemployment rate are examples of the very favourable performance that the job market has maintained in the third quarter of the year. However, FUNCAS estimates that, in effective and seasonally-adjusted terms, i.e., discounting the workers on job-retention schemes and the self-employed with benefits, there is still a deficit of 415,000 jobs, which is even greater if the contribution of public employment is discounted[3].

Over the third quarter, however, some global supply shocks have intensified, which might hamper GDP growth. Particularly noteworthy is the rise in raw material prices in international markets and, in particular, the "perfect storm" unleashed in energy markets, especially the gas market. Accordingly, both in the Iberian gas market and in the benchmark market in Europe, the prices of this raw material are above the historical peaks observed in 2008 and 2009. The high energy intensity of the Spanish economy compared with other European countries and the pricing mechanisms in the retail markets make

[3] See Social Security Affiliation and registered unemployment September 2021 - Funcas

the passing-on of these increases through the chain particularly intense in Spain. Although the measures implemented by the Government have managed to offset the transfer to consumer prices to some extent, prices are rising with such intensity that they threaten to significantly undermine the purchasing power of households, while they might also slow down the reactivation of such sectors as hospitality, a very energy-intensive sector, and some industrial sectors.

FIGURE 10. GAS PRICE IN THE IBERIAN GAS MARKET. (EUR/MWH)

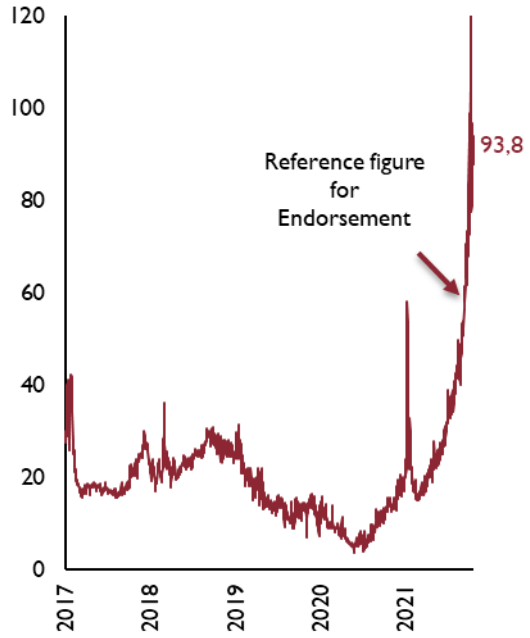
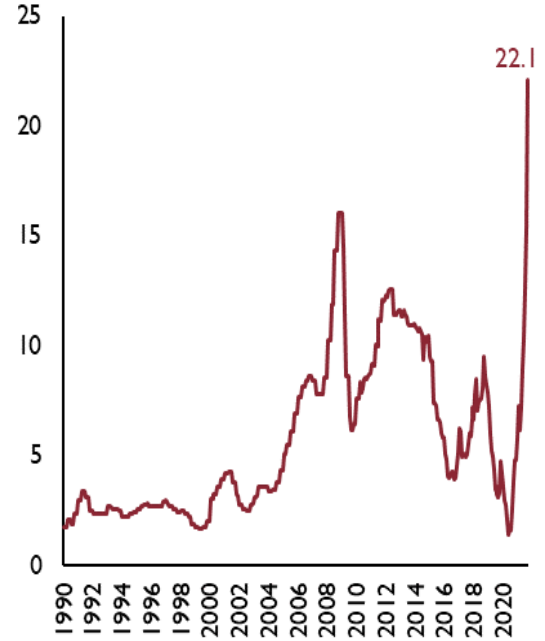


FIGURE 11. NETHERLANDS TTF NATURAL GAS FORWARD DAY AHEAD. ($/MILLION BTU)

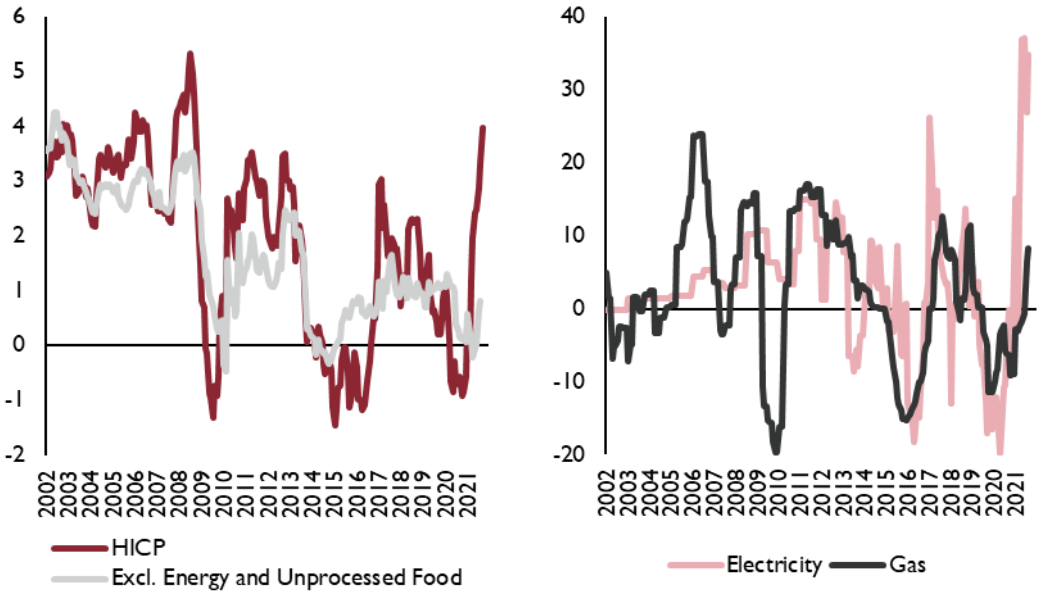


Sources: MIBGAS and FMI.

In recent months, the shortage of supply of some inputs has also worsened, which, together with the rise in energy prices, may have slowed down industrial production. Thus, the seasonally-adjusted and calendar-corrected industrial production index fell by 2.5% between May and August. The industrial price index, on the other hand, recorded a year-on-year increase of 18% in August (the year-on-year change in this index was only -3.5% in the same month of 2020, which reflects that much of this increase is genuine and is not due to a baseline effect). This increase reflects both the sharp increase in the price of energy (+42% year-on-year in August) and an increase in the prices of non-energy intermediate goods (16%). Recent surveys of businesses worldwide indicate that the supply shortage might last longer than initially expected, extending until 2023.

This is reflected in an increase in inflationary tensions with no second-round effects on wages for the time being. The Harmonised Index of Consumer Prices recorded a year-on-year increase of 4% in September, exceeding the euro area average by 0.6 percentage points. Core inflation, which excludes unprocessed food and energy products, rose by 0.3 percentage points to 1%. Negotiated wages do not yet reflect the increase in inflation. In addition, in the case of the Spanish economy there are no signs of a shortage of labour supply as has arisen in some economies as they exit from the crisis. This is because the improvement in the job market has been accompanied by an increase in the participation rate, which has recovered pre-pandemic levels, which in turn attenuates the pressure on wages.

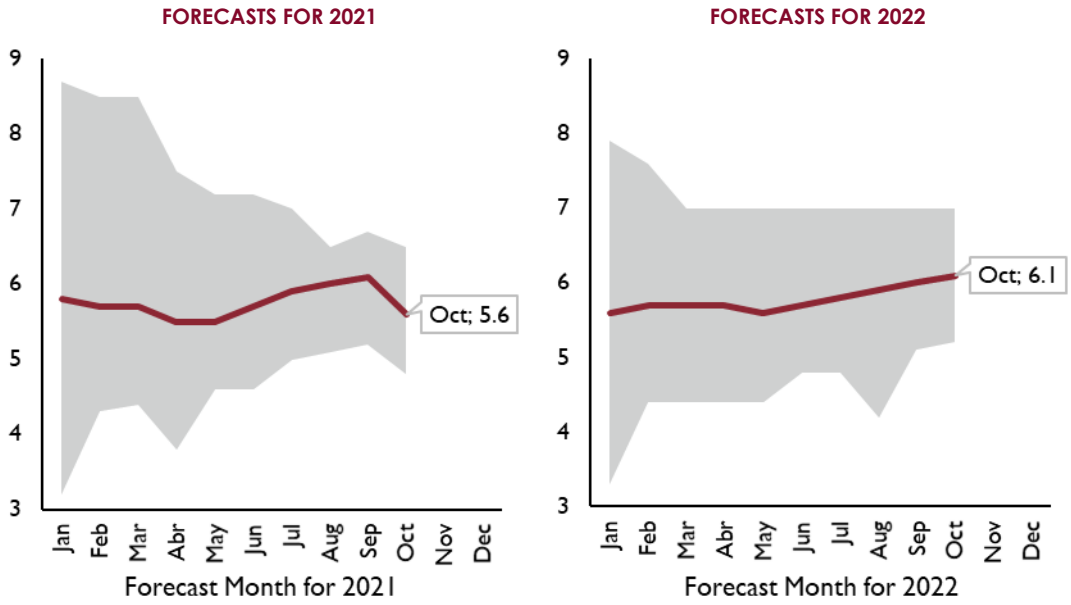
FIGURE 12. HARMONISED ICP FOR SPAIN. YEAR-ON-YEAR RATES OF CHANGE. (%)



Source: Eurostat.

However, the most recent forecasts of the consensus of analysts, which mostly now incorporate the new National Accounting Data, lower their expectations for 2021 and partially improve those of 2022. The incorporation of the new data from the National Accounts published on September 23rd has led to a downward revision of the panel's growth forecasts, while the outlook for 2022 improves slightly. More recently, along the same lines, the International Monetary Fund also reduced its estimate for 2021, to 5.7%, while improving the expected growth for 2022 to 6.4%.

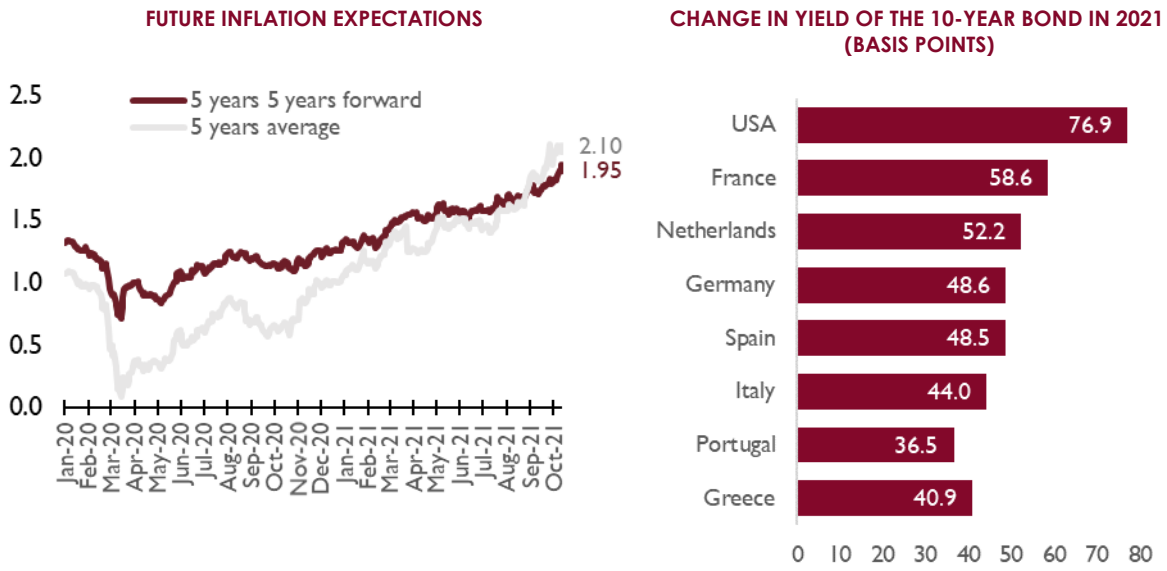
FIGURE 13. AVERAGE RANGE AND FORECAST OF GDP GROWTH. PANEL OF FORECASTERS. ACCORDING TO MONTH OF FORECAST. (YEAR-ON-YEAR RATE OF CHANGE)



Source: Prepared by AIReF based on Analysts' forecasts.

Noteworthy at an international level is the emergence of inflationary tensions that have placed monetary policy decisions in the spotlight. The upturn in global activity supported by strong fiscal stimulus measures, supply chain bottlenecks and the rise in the price of certain commodities and raw materials has led to a strong upturn in inflation in most advanced economies to rates not seen in ten years. While this upturn can be expected to be temporary and to remit as supply responds to the intensity of demand, inflation expectations are rising sharply. In this context, following the last meeting of its Governing Council, the ECB announced a moderation in the pace of purchases of public assets under the Pandemic Emergency Purchase Program (PEPP), paving the way for a future gradual reduction of monetary stimulus programmes. On the other side of the Atlantic, half of the participants of the US Federal Open Market Committee (FOMC) are already suggesting rate hikes in 2022, with all of its members taking it for granted in 2023.

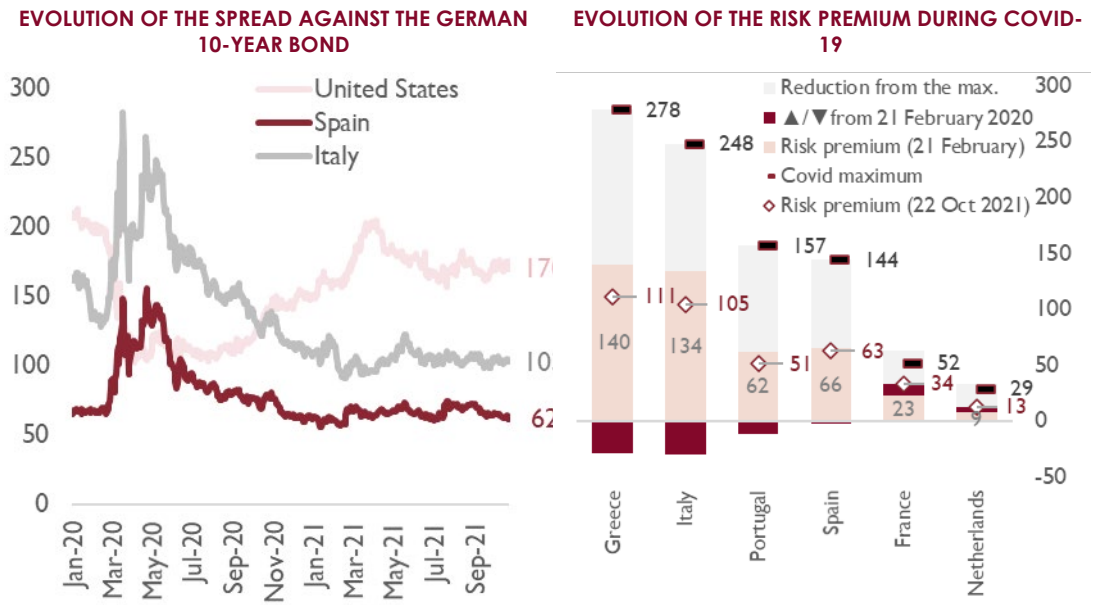
FIGURE 14. EXPECTATIONS OF INFLATION AND YIELD ON PUBLIC DEBT (22-OCT-2021)



Source: Refinitiv

The revival and emergence of inflationary tensions at a global level is generating upward pressure on long-term sovereign bond yields. Inflationary tensions have shifted to the long-term yield of sovereign debt, with particular intensity in the United States. In the case of Spain, yields on the 10- and 30-year Spanish bond so far this year have RISEN by 50 bps, in line with neighbouring countries. In Spain and other countries with high levels of debt, sovereign debt risk premiums have stabilised below or at levels similar to those recorded in the period prior to the pandemic.

FIGURE 15. RISK PREMIUMS (22-OCT-2021)

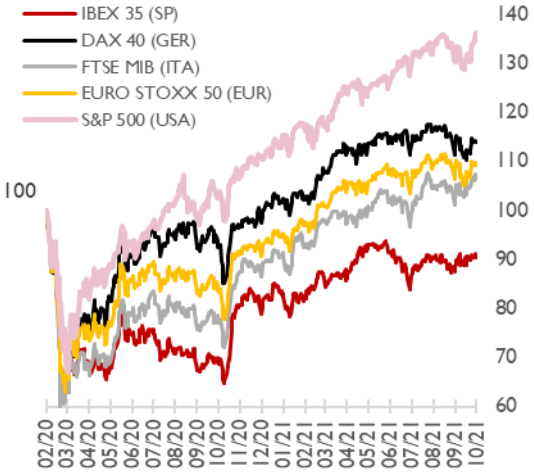


Source: Refinitiv

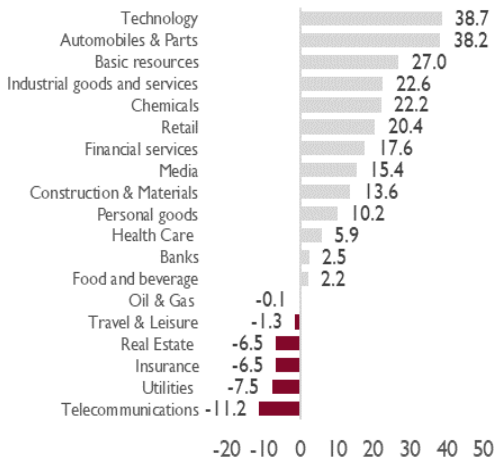
After a small correction, stock markets have resumed their upward trend, placing most of the main world stock market indices very close to historic highs. The main world indices are well above the values prior to the outbreak of the crisis, except in the case of Italy and Spain. The recovery has been very uneven at a sector level. There was a noteworthy rise in technology, automobile and basic resources stocks, while the telecommunications, energy and real estate sectors recorded falls. Despite the brief upturn caused by the fear of a new systemic crisis triggered by the non-payment by Evergrande - one of the largest real estate companies in the world - volatility indices remain close to annual lows.

FIGURE 16. STOCK MARKET AND SECTOR INDICES DURING THE PANDEMIC (21-FEB-2020 22-OCT-2021)

EVOLUTION OF THE MAIN WORLD STOCK INDICES



SECTOR PRICE CHANGES OF THE EURO STOXX 600



Source: Refinitiv

3.3 Assessment of the macroeconomic scenario of the GSB for 2022

3.3.1 Assessment of the technical assumptions in the GSB scenario

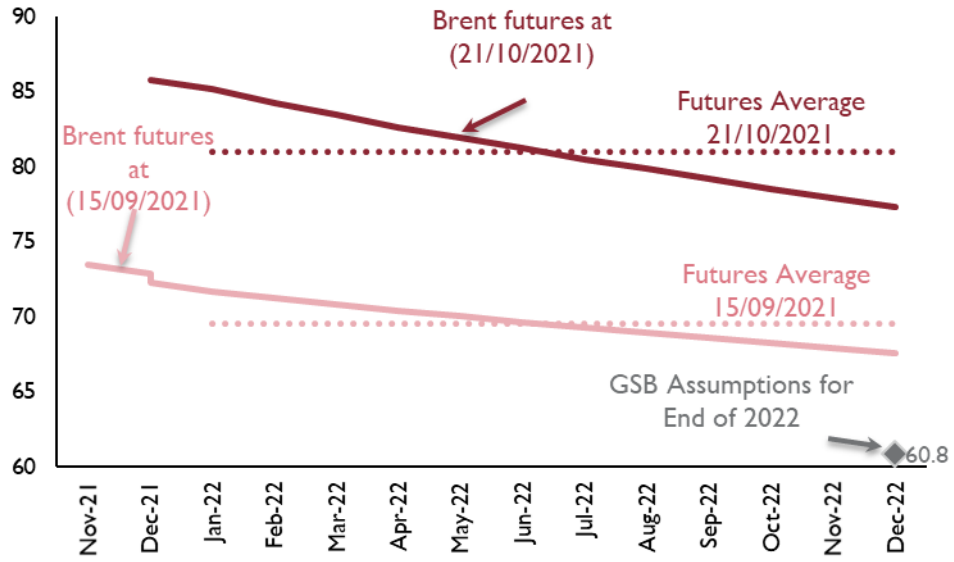
AIReF considers that the technical assumptions of the Government's macroeconomic scenario are reasonable. The macroeconomic scenario for the 2022 GSB is based on the forecasts on the evolution of the external environment in the September projection exercise of the European Central Bank (ECB). Thus, forecasts of growth in world GDP, excluding the euro area, point to growth of 4.5% in 2022. The euro area would record similar growth of 4.6% in the same year. AIReF's macroeconomic outlook is based on these

same forecasts, which represent an upward revision compared with those of the Stability Programme Update of April 2021. This is due to the fact that the euro area has recorded a stronger-than-expected recovery following the contraction at the start of the year caused by the severity of the pandemic and various weather events.

The forecasts on short- and long-term interest rates are aligned with those of AIReF. The Government assumes that short-term interest rates will remain stable at negative levels in 2022, while long-term interest rates will continue to rise to 0.9% in 2022, in line with the ECB and AIReF forecasts.

The price of oil doubled between October 2020 and October 2021 and the Government expects it to moderate in 2022 to around $60 per barrel in December 2022. The data on the oil futures market per barrel have remained very volatile since mid-September, with Brent futures recording a rise of approximately $11/barrel in the last month. At present, futures market prices put the price of oil at almost $80 per barrel at the end of 2022. Therefore, upside risks are identified on the assumption underpinning the Government's scenario, which might result in higher inflation and lower economic growth.

FIGURE 17. PRICE OF BRENT OIL FUTURES . DOLLARS PER BARREL.



Source: Nymex.

3.3.2 Macroeconomic scenario 2021-2022

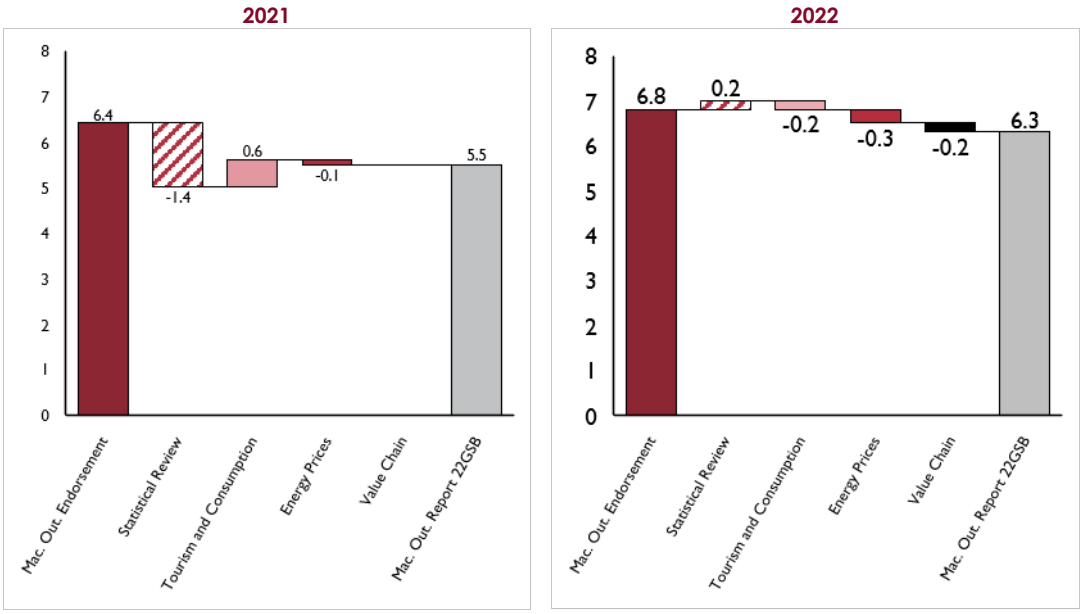
AIReF has revised downwards its forecasts for 2021 and 2022. In order to judge the degree of likelihood of the Government forecasts accompanying the 2022 GSB, AIReF prepares its own forecasting scenarios around which it builds confidence bands using models. As a result of the statistical review of the

National Accounts series and the recent materialisation of downside risks relating to energy prices and value chains, AIReF revises its forecasts for 2021 and 2022 downwards with respect to those used to endorse the Government's macroeconomic outlook in September. In particular, the GDP growth forecast for 2021 is revised down by 0.9 pp to 5.5%, while the growth forecast for 2022 is reduced by 0.5 pp to 6.3%.

The main factors behind this revision can be broken down into four blocks:

- Firstly, the revision of the national accounting data has led to a downward revision of 1.4 pp in 2021. However, this factor would contribute positively to average growth in 2022 as it means a delay in the rate of recovery compared with the previous forecast.
- Secondly, the rise in energy prices has been significantly sharper than estimated in September – between January and September the price in the Iberian gas market went from 20 to 50 euros/MWh. Since then, it has rapidly escalated to almost 100 euros/MWh. It is estimated that this factor will subtract 0.1 points from GDP growth in 2021 and 0.3 points in 2022. Two econometric models are used to calibrate its impact on economic activity, which are presented in Box 1.
- It should also be noted that bottlenecks are affecting industrial production, although the intensity of this phenomenon remains lower in the Spanish economy than in countries with greater production specialisation in high-tech sectors, such as Germany. The calibration of the impact of this phenomenon is very tentative since it is carried out on the basis of the evidence available for other countries. Together with the increase in the price of energy, these two elements together subtract 0.1 pp from GDP growth in 2021 and 0.5 pp in 2022.
- In the opposite direction to these factors, the more positive evolution of tourism over the summer months and consumption associated with this activity contribute 0.6 pp of higher growth in 2021. In 2022, however, they would contribute less growth.

FIGURE 18. SOURCES OF OF THE REVISION OF AIREF'S MACROECONOMIC OUTLOOK FOR 2021 AND 2022



Source: AIReF estimates.

In comparative terms, the Government's macroeconomic scenario assumes faster GDP growth than that of AIReF, especially in 2021. In 2021, the largest discrepancies are due to the incorporation of the data from the Quarterly National Accounts and the Non-Financial Accounts of the Institutional Sectors, which were published on September 23rd and 30th, respectively. In addition, the incorporation into AIReF's central scenario of a negative impact associated with the increase in energy prices and bottlenecks in the manufacturing industry helps explain the differences in 2022.

As for the RTRP, in September AIReF had already revised downwards the estimated impact for 2021, although it maintained the estimated boost for 2022. Initially, in the Report on the SPU, AIReF estimated the macroeconomic impact of the RTRP at 1.5 pp for 2021 and 2.5 pp for 2022, although it highlighted the high degree of uncertainty about its implementation. Five months after this estimate was made, the delay in implementation of the RTRP has led to a downward revision of the impact of the RTRP in the two years of the projective horizon of this report, delaying that contribution until 2024. The reduction to less than half of the estimated impact for 2021, to 0.7 pp, is the result of considering that, of the €22bn expected to be executed in the Report on the SPU, only €9bn would be implemented and, furthermore, largely towards the end of the year, which would transfer its macroeconomic impact to the following year. In addition, it is considered that not everything that is not implemented in 2021 will be executed in 2022. In contrast, delays will occur every year and so the almost €70bn of the RTRP would be distributed as follows: almost €9bn in 2021, about €26bn in 2022, a little more than €21bn in 2023 and

about €13bn in 2024. This distribution results in the impact that can be seen in the following figures, which are those that are incorporated into the AIReF scenarios. The impact that the Government assigns to the RTRP is unknown as this information is not broken down in the documentation that accompanies the draft budget submitted.

FIGURE 19. ANNUAL RTRP GROWTH BOOST (PP)

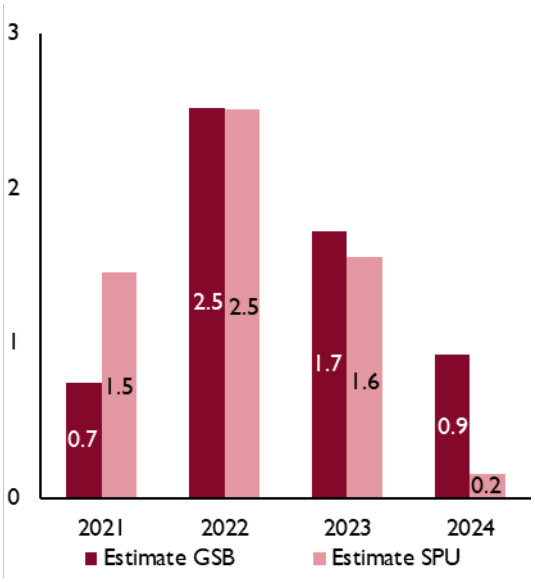
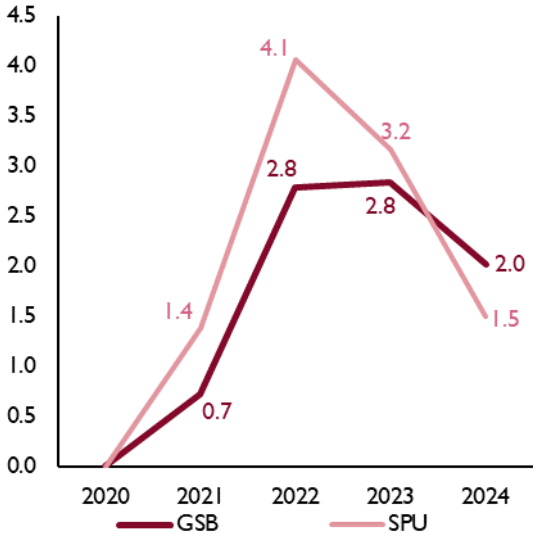


FIGURE 20. IMPACT ON GDP. DEVIATIONS IN % FROM A SCENARIO WITHOUT RTRP



Source: AIReF

The following table shows the comparison and composition of the macroeconomic outlooks of AIReF and the Government. The macroeconomic outlook of AIReF, like that of the Government itself, does not include the potential effects of the reforms that have been announced but not specified. Neither does it include the potential impact of measures announced following presentation of the GSB.

TABLE 2. MACROECONOMIC OUTLOOK FOR 2021-2022.

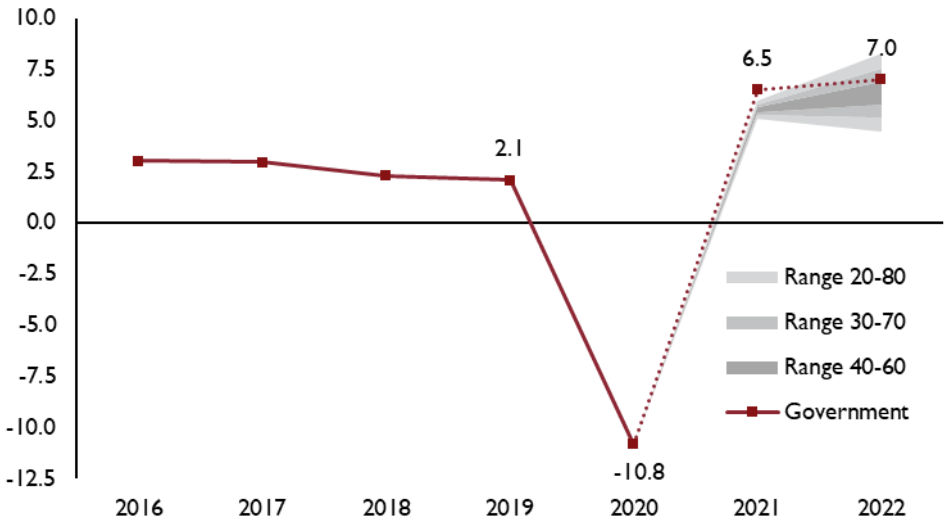
		AIREF		Government	
Year-on-Year Rates of Change	*2020*	*2021*	*2022*	*2021*	*2022*
Domestic private final consumption expenditure	-12.0	7.1	6.4	8.0	6.9
General government final consumption expenditure	3.3	2.4	-0.4	2.5	1.5
GFCF	-9.5	6.4	12.6	7.2	12.3
GFCF Equipment and cultivated assets	*-12.1*	*15.2*	*12.0*	*16.5*	*18.3*
GFCF Construction and intellectual property	*-8.3*	*2.4*	*12.9*	*3.0*	*9.3*
Domestic Demand*	*-8.6*	5.8	6.2	6.5	6.7
Exports of goods and services.	-20.1	10.2	11.1	10.0	10.3
Imports of goods and services	-15.2	11.7	10.8	10.3	10.0
External balance*	-2.2	-0.3	0.2	0.1	0.2
Gross Domestic Product	**-10.8**	**5.5**	**6.3**	**6.5**	**7.0**
Nominal Gross Domestic Product	**-9.8**	**7.0**	**8.1**	**7.8**	**8.6**
Gross Domestic Product Deflator	1.1	1.4	1.6	1.2	1.5
Full-Time Equivalent Employment	-7.6	4.0	3.8	4.0	2.7
Unit Labour Cost	5.3	-0.2	-0.6	-1.5	-2.5
Productivity per Full-Time Employee	-3.5	1.5	2.5	2.4	4.2
Unemployment rate (% of Active Population)	15.5	15.4	14.0	15.2	14.1
Household and NPISHs Saving Rate (% Gross Disposable Income)	15.1	10.2	8.3	--	--

* Contribution to GDP growth

Source: National Statistics Institute and prepared by AIReF.

The Government's GDP forecast for 2021 is outside AIReF's confidence interval, while those for 2022 are close to AIReF's central forecast range, albeit with an optimistic bias. According to AIReF's most recent estimates, in 2022 the likelihood that GDP growth at constant prices is equal to or higher than that estimated by the Government is 38%.

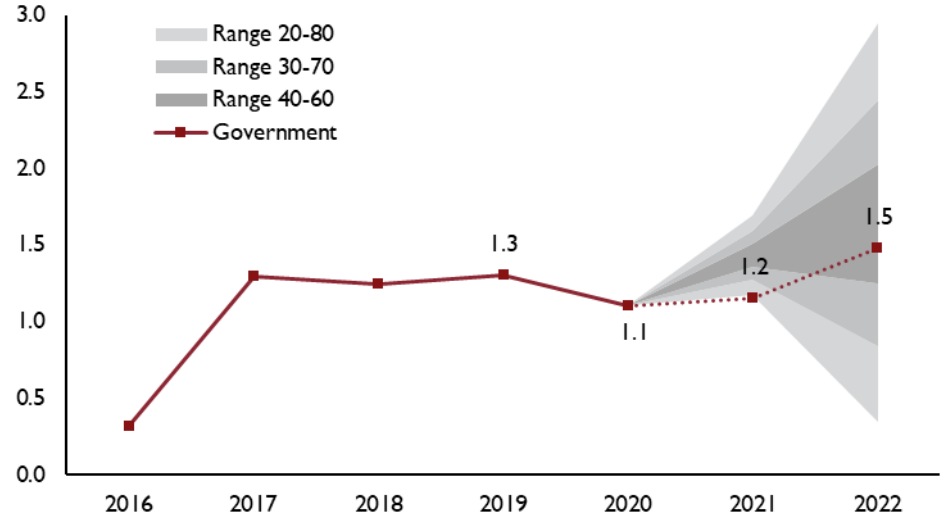
FIGURE 21. RATE OF CHANGE OF GDP IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

With regard to the GDP deflator, the Government expects an evolution that lies at the lower end of AIReF's confidence interval for 2021 and in the central range for the following year. The trend forecast by the Government regarding the deflator is thus more moderate than that of AIReF itself. This attenuates the optimistic bias observed in the forecasts for real growth for preparation of the budget.

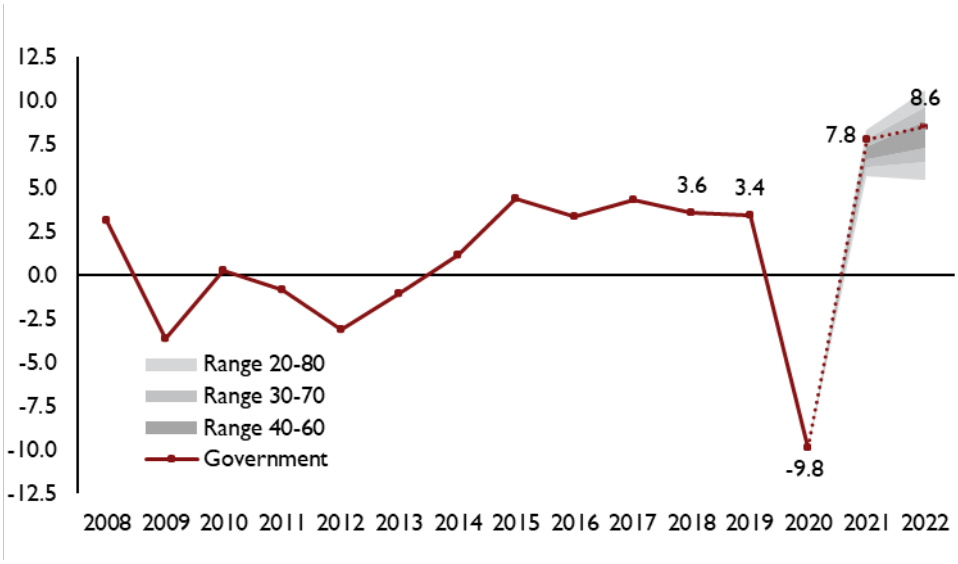
FIGURE 22. RATE OF CHANGE IN THE GDP DEFLATOR (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

As a result of the expected evolution for GDP and its deflator, nominal GDP stands at the optimistic end for 2021 and in the central range in 2022. It is important to highlight that in the endorsement of the macroeconomic forecasts of the GSB, nominal GDP for 2022 is the key variable as it determines the feasibility of compliance with the budgetary targets and, therefore, the suitability of the GSB.

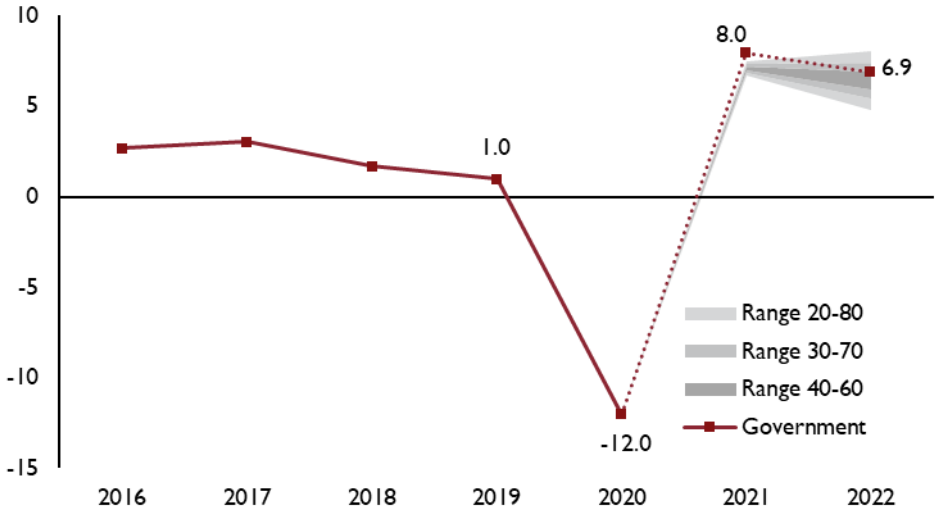
FIGURE 23. RATE OF CHANGE IN NOMINAL GDP (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

Similar to GDP, private consumption estimated in the Government's macroeconomic outlook for 2021 is above the upper range of AIReF's estimate, while the estimate for 2022 falls within the central range. The fundamental difference between AIReF's estimates and the Government's for 2021 would be determined by the effects of the INE's statistical review.

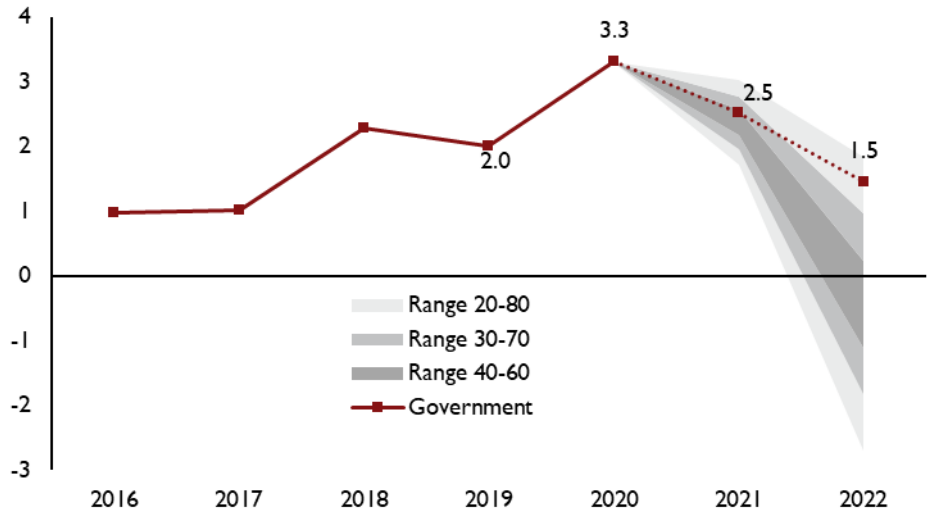
FIGURE 24. RATE OF CHANGE IN PRIVATE CONSUMPTION IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

The final consumption expenditure of the GG in real terms expected by AIReF and by the Government for 2021 is similar, while the estimate for 2022 differs significantly. In 2022, discrepancies can be found in the Government's estimates relating to the growth of aggregate public consumption and that of its different components, as reflected in the Government's Budgetary Plan. In particular, the latter show greater containment, which is consistent with the behaviour expected by AIReF. AIReF considers that after the high growth of previous years, the intermediate consumption of the GG will show more moderate behaviour.

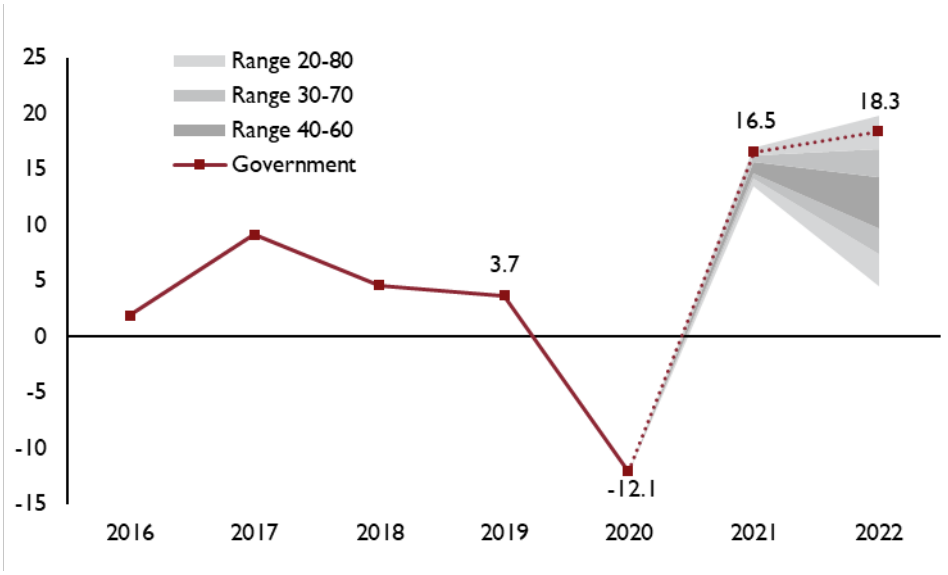
FIGURE 25. RATE OF CHANGE IN PUBLIC CONSUMPTION IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

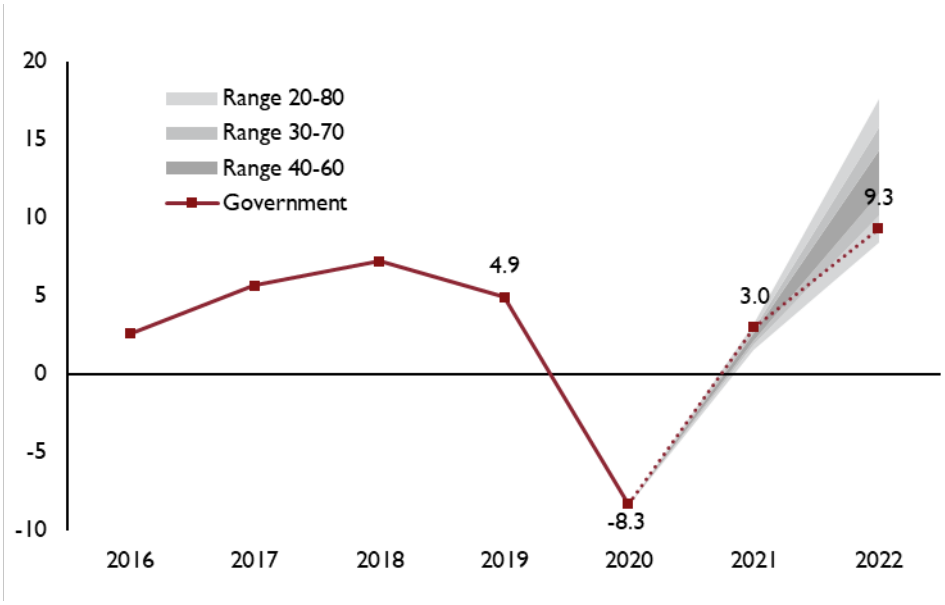
With regard to investment, the Government's estimates for both years would fall within the ranges estimated by AIReF. However, it is observed that, while the estimate for gross capital formation in equipment and cultivated assets stands in both years at the upper end of the confidence interval, that corresponding to gross capital formation in construction lies at the lower end in 2022 and is more conservative than AIReF's estimate.

FIGURE 26. RATE OF CHANGE IN GFCF IN EQUIPMENT AND CULTIVATED ASSETS IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

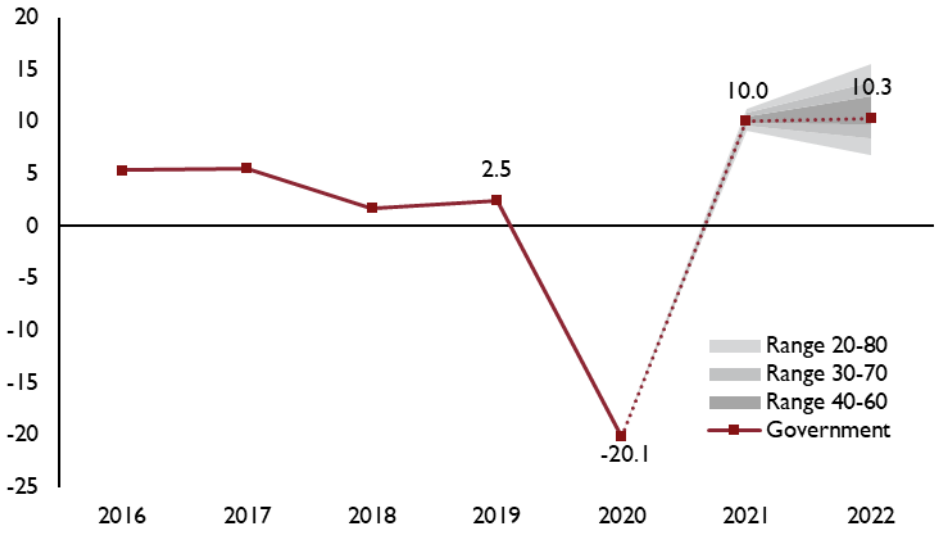
FIGURE 27. RATE OF CHANGE IN GFCF IN CONSTRUCTION AND INTELLECTUAL PROPERTY IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

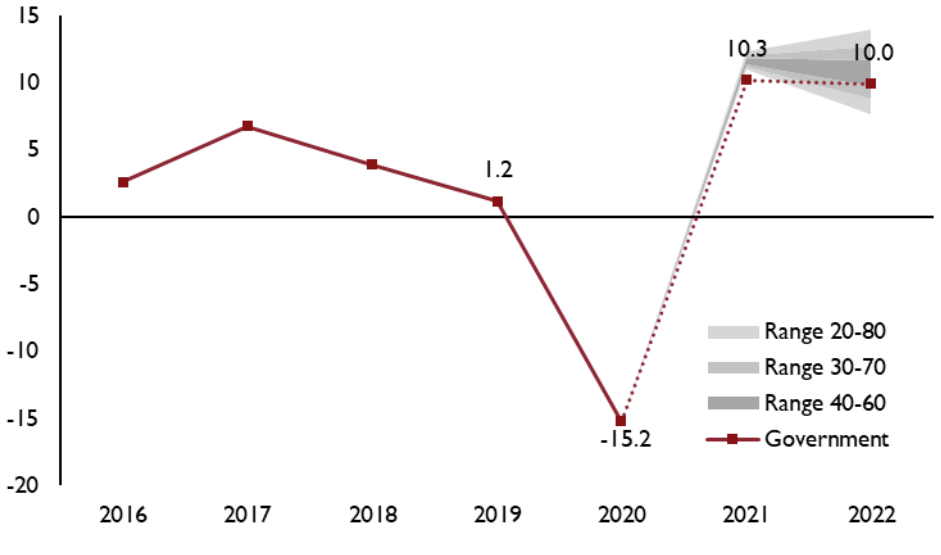
The Government's projections for the external sector are very similar to AIReF's. The Government's forecasts for exports of goods and services lie within the confidence interval between AIReF's 60th and 40th percentiles. In the case of imports of goods and services, AIReF forecasts higher growth for 2021 that reflects the major boost recorded by this aggregate in the second quarter of the year, according to the most recent figures of the Quarterly National Accounts. For 2022, the forecast would be at the lower end of AIReF's central forecast range.

FIGURE 28. RATE OF CHANGE IN EXPORTS OF GOODS AND SERVICES IN TERMS OF VOLUME (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

FIGURE 29. RATE OF CHANGE IN IMPORTS OF GOODS AND SERVICES IN TERMS OF VOLUME (%)

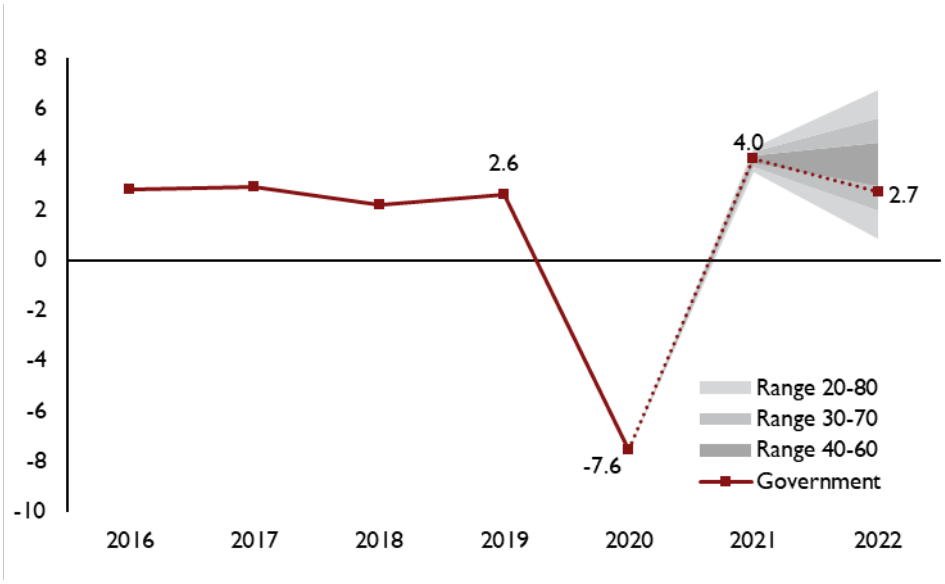


Source: INE and Ministry of Economic Affairs and Digital Transformation

In the case of employment, there are also no significant discrepancies. For 2021, the estimate of the growth in full-time equivalent employment is identical to that made by AIReF, while for 2022 the Government's estimates are somewhat lower, but within the 30-70 interval of AIReF's forecast. The higher employment growth forecast by AIReF for 2022 is barely reflected in a lower

unemployment rate compared with the Government's forecasts since AIReF forecasts higher growth of the active population than the Government.

FIGURE 30. RATE OF CHANGE IN FULL-TIME EQUIVALENT EMPLOYMENT (%)



Source: INE and Ministry of Economic Affairs and Digital Transformation

3.4 Risk analysis

AIReF's scenario and, to a greater extent, that of the Government, are subject to downside risks. The main element of risk continues to be the pandemic. Although the health situation has improved considerably, the emergence of new outbreaks or new variants cannot be ruled out. This would force the reintroduction of mobility or capacity restrictions, which would hinder the normalisation of tourism and activities requiring greater social interaction. The uneven pace of vaccination in some countries and the acceleration of infections in several countries, such as those in Eastern Europe, mean that there is still a high level of uncertainty about the future course of the pandemic.

FIGURE 31. REPRODUCTION RATE EUROPE

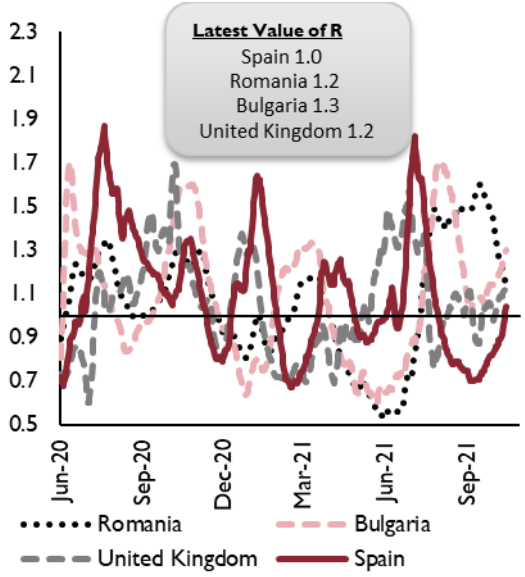
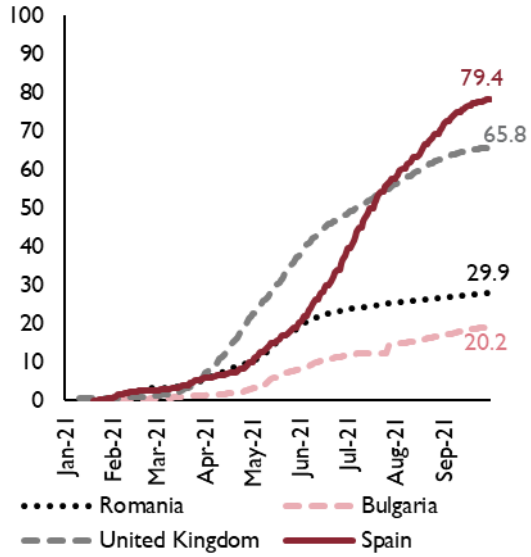


FIGURE 32. % OF FULLY VACCINATED POPULATION



Source: Our World in Data.

The extent of the high growth rates projected by AIReF and especially by the Government for 2022 requires investment to take over from private consumption in order to maintain the momentum of the economic recovery. The bottlenecks, rising raw material prices and a possible delay in implementation of the RTRP pose downside risks for this scenario. Until now, the reactivation of the economy in Spain has been almost exclusively based on the recovery of private consumption as the pent-up demand accumulated during the lockdown was released. However, the fact that the saving rate has already reached pre-pandemic levels suggests investment will need to take over in order to maintain the intensity of the recovery and achieve the growth expected in the Government scenario or in that of AIReF itself.

In this regard, a longer duration of bottlenecks and tensions in energy production markets might hamper the recovery in investment. There is some consensus that these disruptions will gradually fade in the first half of 2022 as a better balance is achieved between global supply and demand. But recent surveys show a growing proportion of companies that think these frictions could last until 2023. The persistence of these supply constraints could slow the rate of recovery of investment. Related to the above, there has been an increase in the risk linked to inflationary pressures over recent quarters. Although these can be expected to be temporary in nature, in economies as indexed as the Spanish one, there is a risk that they will end up being passed on to public and private wages, thus generating an inflationary spiral.

Finally, uncertainty remains regarding the short-term materialisation of the macroeconomic impact of the RTRP. Until now, little information has been available on the actual implementation of the investment projects associated with the Plan and a new delay in the time in which their rollout starts to be noted in economic activity cannot be ruled out. In addition, there is a significant challenge in meeting the milestones agreed with the European Commission in the labour market, pensions and taxation reforms.

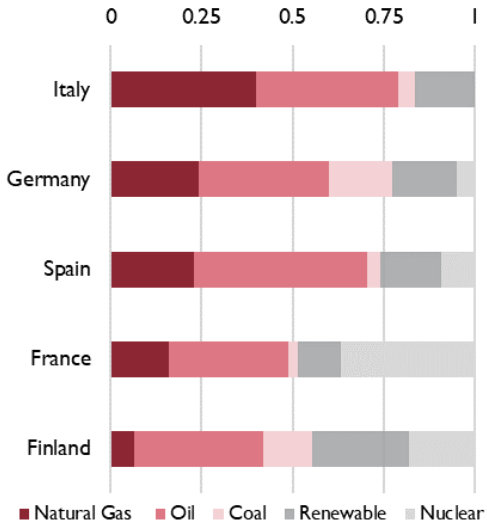
BOX 1. IMPACT OF ENERGY PRICES ON ECONOMIC ACTIVITY

The prices of energy inputs have grown extraordinarily, approaching historical highs. The observed increases can be explained by supply and demand factors. On the supply side, one of the main problems lies in the lack of natural gas supply, which accounts for a fifth of the primary energy consumed in Spain and Europe. The shortage of natural gas is explained by disruptions in the supply systems of Russia and Norway and by the low levels of stock accumulated in the summer, 20% lower than their historical average, which limit the ability to soften the shock. In the specific case of Spain, the effects derived from the Algerian-Moroccan diplomatic conflict are also added, which could lead to a lower supply of gas to the Iberian market. The other primary energy sources cannot offset this shortage. In particular, wind energy production has been particularly low in the summer period in Europe, and the extraction of oil from oil shale in the US has not managed to recover from the evolution of prices during 2020 that forced many producers to leave the market and close their facilities. Similarly, the prices of European carbon allowances (EU ETS, which allow its holder to emit one tonne of carbon dioxide) have exceeded the historical threshold of €65 per tonne. Since the use of coal to generate electricity emits more CO2 than the use of natural gas, the increase in the price of emission allowances makes the generation of electricity using coal as an alternative to natural gas more expensive.

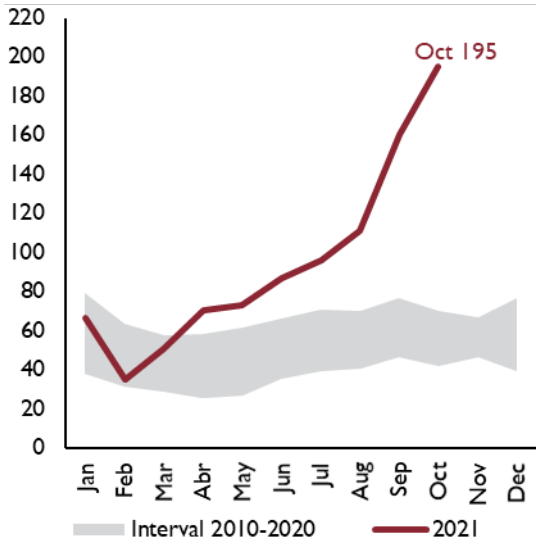
On the demand side, there are geopolitical factors and elements of precautionary hoarding of energy resources. The rapid economic recovery of China and other Asian economies has boosted energy demand in the international market. This demand could have been pent up during lockdown periods. High domestic demand in Russia has also reduced Russia's export of energy supplies to Europe.

The perfect storm that has combined a contraction in supply and an increase in energy demand has led to a rapid increase in the price of electricity in Spain, where the price of the megawatt hour in September 2021 was three times higher than the historical average.

PRIMARY ENERGY CONSUMPTION BY TYPE OF SOURCE. % OF TOTAL (2019)



AVERAGE MONTHLY PRICE OF ELECTRICITY IN SPAIN. €/MWh



Sources: BP Statistical Review of World Energy 2020 and REE

This increase in the prices of energy inputs has important economic implications from the perspective of equity, price stability and productive activity.

Firstly, from a socio-economic point of view, 10.9% of the Spanish population was unable to warm their home adequately in 2020, a proportion higher than the European average[4]. This percentage is expected to increase in 2021.

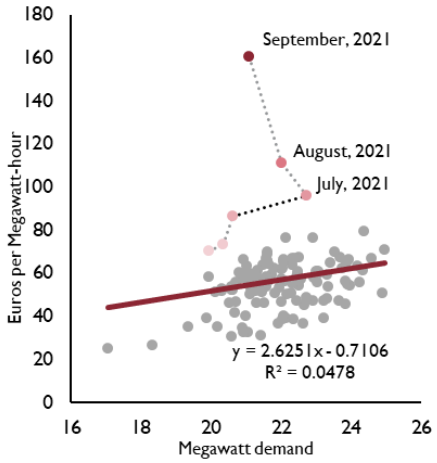
Secondly, the rise in the price of electricity is translated into inflation by reducing the purchasing power of households. In September 2021, Spanish households observed inflation of 3.3% year-on-year, whose main influencing factor is the housing group, which increased by 14.5% compared with the same month of the previous year due to the increase in electricity prices. These inflationary developments are similar to those observed in other euro area countries and are above the ECB's inflation targets.

Finally, the impact on economic activity of the increase in energy prices has counter-intuitive and time-dependent effects. Lavandeira et al (2016) carry out a review of the empirical literature on the price elasticity of the demand for energy products and electricity in Spain. The meta-analysis suggests lower negative elasticity in the short term and higher elasticity in the long term when the agents have been able to readjust their consumption and production patterns. The main conclusion is that the increase in energy prices will lead to a less than proportional reduction in demand in both the short and long term.

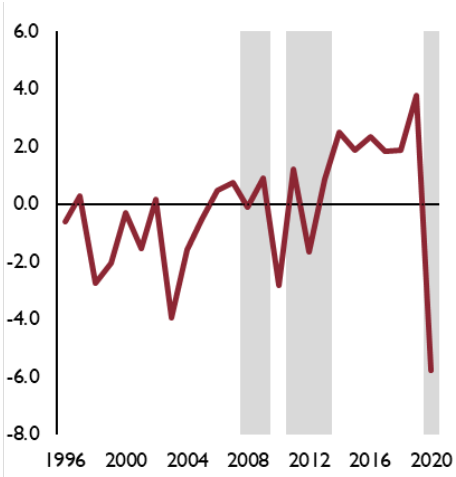
[4] European Union Statistics on Income and Living Conditions (EU-SILC), 2020.

On the other hand, the relationship between GDP and electricity demand seems to have undergone a paradigm shift in the last expansionary cycle experienced by the Spanish economy. While during the expansive period between 2002 and 2008 electricity demand grew at a higher rate than GDP, during the expansion between 2013 and 2019, GDP has grown more than proportionally in relation to electricity demand. This decoupling of energy demand and economic growth can be explained by the lower energy intensity associated with the orientation of production towards the tertiary sector and by greater energy efficiency; that is, economic structures that manage to generate greater added value for each unit of energy used.

RELATIONSHIP BETWEEN PRICE AND QUANTITY OF ELECTRICITY DEMANDED



DIFFERENTIAL BETWEEN GDP GROWTH RATES AND ELECTRICITY DEMAND



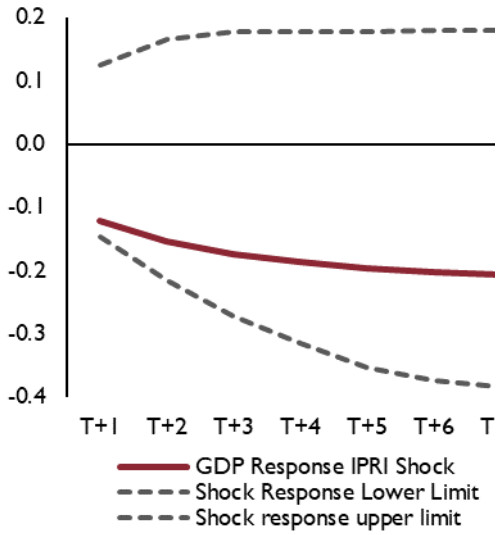
Right graph: years shaded in gray indicate recession period according to the Spanish Association for Energy Economics (AEEE)

Sources: REE and INE

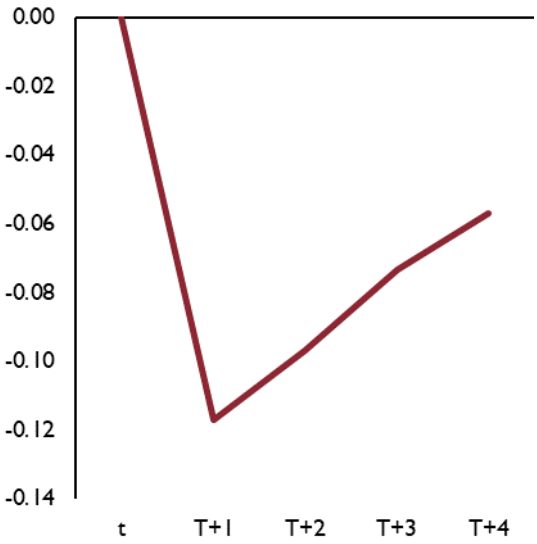
The complexity of the relationship between energy prices and the aforementioned economic activity makes it difficult to estimate the effects of one variable on the other. Two complementary analyses have been carried out in this regard. On the one hand, a multivariate model is estimated that allows exploiting the co-integration relationship between GDP, the Energy IPI (Energy Industry Production Index) and the Energy IPRI (Industrial Energy Price Index) (as proxies of economic activity as a whole and the relationship between output and cost of factors to capture the channel of companies, respectively).

In particular, a Structural Vector Error Correction Model (SVECM) has been estimated with the seasonally-adjusted index series of GDP in volume, the energy IPRI and the IPI with 2015 as a baseline, obtained from the REMS database from 1980Q2 to 2019Q4 in logarithms. This exercise reveals that an increase in the energy IPRI of 20% per year has a negative effect on GDP of 0.1 points per year in the first few years, reaching an impact of 0.2 points for subsequent years (see the left part of the attached graph).

GDP RESPONSE TO A 20% ANNUAL BOOST IN INDUSTRIAL ENERGY PRICES (%)



IMPACT ON GDP OF A 20% INCREASE IN ENERGY PRICES (%)



Sources: AIReF and AIReF using Oxford Economics' Global Economic Model

In addition, to capture the dynamics of external demand in response to this generalised increase in energy prices, a global model based on error correction models can be used. Thus, the simulations carried out with the Oxford Economics global economic model show that a generalised shock to Spain and its trading partners that results in an increase of 20% higher than expected in the energy prices paid by both households and industry over one year and then a return to the expected growth path would have a negative effect on GDP of slightly more than 0.1 points in the first year and that it would persist, albeit gradually reducing, over at least the following three years. It is important to point out that both exercises are complementary, but in no case additive since in both simulations the condition *ceteris paribus* prevails; in addition, there is a high degree of uncertainty in the quantification of these effects.

BOX 2. APPEARANCE OF BOTTLENECKS ON THE SUPPLY SIDE

The economic recovery stage following the Covid-19 crisis has differential features compared with the stage following the economic and financial crisis that began in 2008. The period following the outbreak of the Great Recession was characterised by a decade of weak domestic demand resulting from the deleveraging process of households and businesses to mitigate the imbalances accumulated in the pre-crisis stage and from austerity policies. In contrast, the spread of the global Covid-19 pandemic triggered measures to confine the population in advanced economies, which in turn led to a collapse in global supply and demand. However, the stimulus packages launched in a coordinated manner by the main governments and the maintenance of extraordinarily favourable financing conditions, together with a healthier initial financial position of households and companies, caused a rapid recovery in global demand as from the second half of 2020 as the epidemiological situation improved and the measures restricting activity were eased.

The initial recovery in economic activity following the outbreak of the pandemic was mainly driven by the increase in demand for manufactured goods (with a particular emphasis on high-technology products), while the services sector has not yet recovered to its pre-crisis level due to the prolonged restrictions on social interaction. In the process, the supply of manufactured goods has not managed to match the rapid increase in demand mainly due to the appearance of supply disruptions in global value chains.

This shortage of some supplies is due to a combination of factors. Firstly, the health crisis led to a slowdown in investment in productive capacity, which, following the recovery, has been unable to meet the sharp increase in orders. Secondly, the health situation has not yet normalised in some Asian countries due to the spread of new Covid-19 variants. This has led to the interruption of production in these countries and a limitation on sea transport, and in turn, supply problems and price competition. In addition, the change in some consumption patterns has caused supply crises in specific sectors. The increase in the consumption of computer and electronic equipment during the pandemic caused these sub-sectors to become priority customers of the semiconductor chip market following the lack of demand from traditional sectors such as the automotive industry. When activity recovered, the supply of semiconductors was unable to meet demand. As a result, the automotive sector faces particularly severe bottlenecks. Supply disruptions have been exacerbated by the fact that a major part of semiconductor production takes place in Asia[5] and due to the high integration of the automotive sector into global value chains.

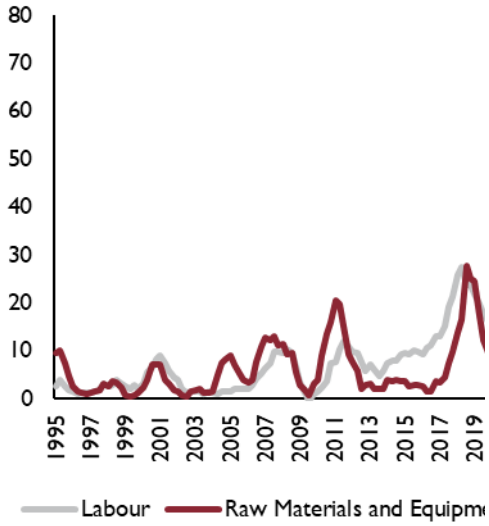
As a result of the aforementioned factors, the European Commission's business and consumer survey shows that among the factors limiting production declared

[5] Half of all advanced semiconductors are produced in Taiwan and South Korea.

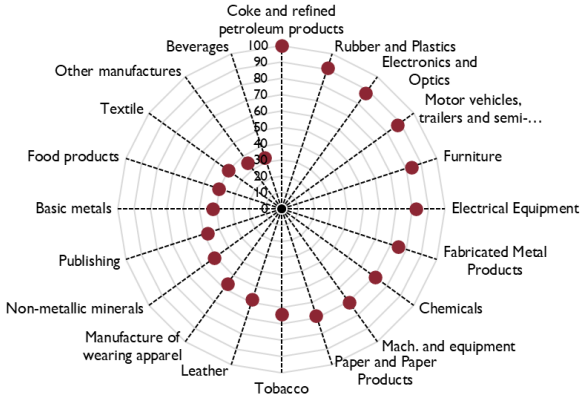
by industrial companies over recent months, the problems of insufficient demand have been replaced by a shortage of materials and equipment and, to a lesser extent, a shortage of labour.

FACTORS LIMITING PRODUCTION IN INDUSTRY AND SHORTAGE OF MATERIAL AND EQUIPMENT BY SUB-SECTOR (% OF COMPANIES WITH PRODUCTION RESTRICTIONS)

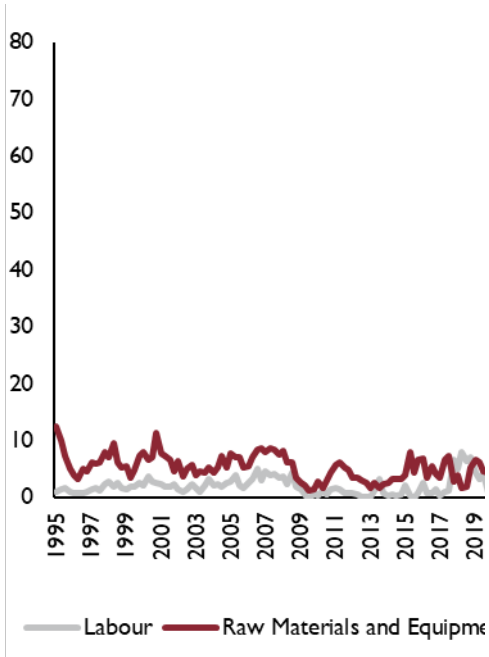
GERMANY. BREAKDOWN BY MAIN FACTORS



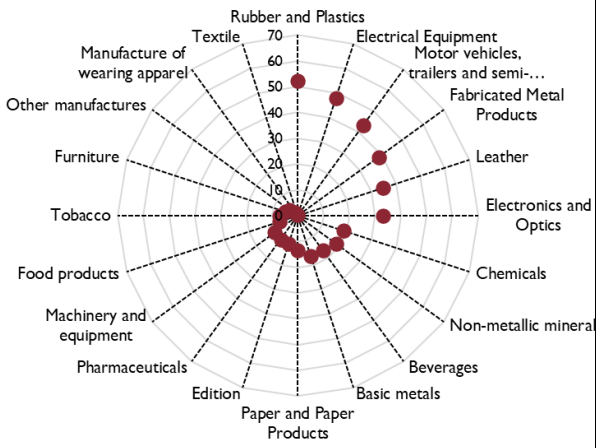
GERMANY. RAW MATERIALS AND EQUIPMENT. BREAKDOWN BY INDUSTRY



SPAIN: BREAKDOWN BY MAIN FACTORS



SPAIN: RAW MATERIALS AND EQUIPMENT. BREAKDOWN BY BRANCH OF ACTIVITY



Source: European Commission Business and Household Survey

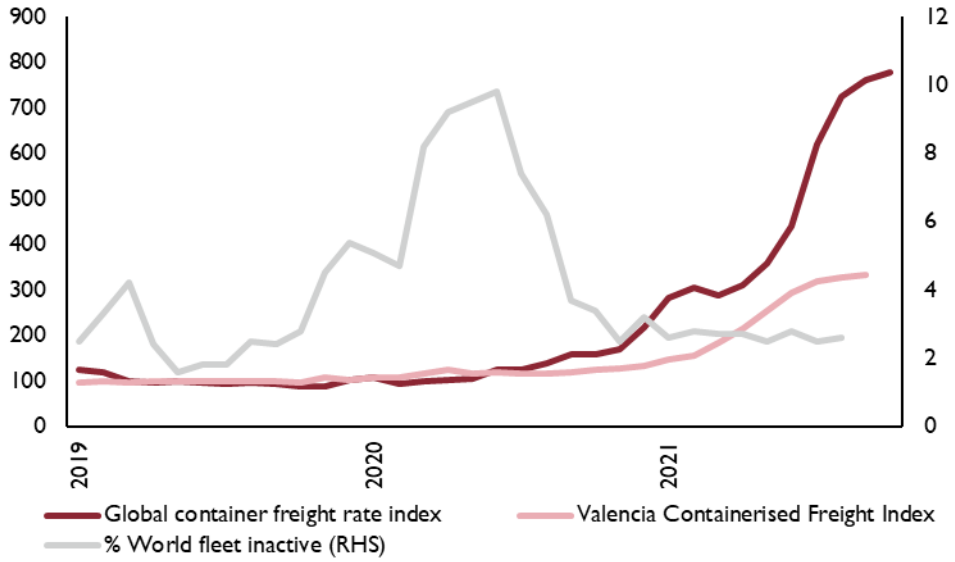
In Spain, unlike in the euro area or Germany, there is no perceived shortage of labour, and the shortage of materials and equipment is more moderate. However, in some sub-sectors such as rubber and plastic, motor vehicles and trailers and electrical equipment, over 40% of companies declare that they face shortages of raw materials and equipment. It is a much higher percentage than the historical average and any peak reached in recent decades. In contrast, other sectors of high relative weight in Spain such as the food industry and the textile sector have been less affected by stock disruptions so far. However, the shortage of raw materials and equipment is expected to continue to spread, given the high integration in global value chains.

This shortage has in turn led to upward pressure on the price of some components and on the price of transport, and to an unprecedented lengthening of delivery times for suppliers. As an illustration, the global price index of sea freight containers has increased sevenfold since the beginning of 2020 (see the following graph). The index of the Port Authority of Valencia has multiplied threefold in the same period, but without reaching the extremes observed in the global indicators.

The economic effects of supply disruptions in global value chains can already be seen in countries such as Germany and are spreading to other euro area countries. In the case of Germany and Austria[6], recent empirical evidence suggests that disruptions in value chains could have reduced GDP growth in the economy by 1 pp and 0.4 pp, respectively, in the second quarter of 2021. In Spain, although the effects still seem to be small in comparison with what has been observed in other countries, they are beginning to appear.

[6] See Monetary Policy and the Economy Q3/21 - österreichische Nationalbank (OeNB).

SEA CONTAINER FREIGHT RATES (INDEX 2019=100) AND PERCENTAGE OF INACTIVE WORLD FLEET (%)



Source: Drewry, Port Authority of Valencia and USDA

BOX 3. How to measure the stance and prudence of fiscal policy in the current environment?

The usual indicators for assessing and monitoring fiscal policy can be classified into two main categories[7]. Top-down indicators and narrative-type indicators. The former seek to approximate the discretionary part of fiscal policy by eliminating from the total observed balance the cyclical elements and those non-recurring revenue and expenditure items that, although they may have a one-off impact on the balance of a specific year, are irrelevant from the point of view of sustainability in the medium term due to their temporary and one-off nature. For their part, the narrative or bottom-up approaches assess the fiscal effort by adding the measures effectively adopted in the budgets. Each approach has its difficulties and problems, which is why approaches have also emerged that combine them both. Examples of mixed indicators are the "expenditure benchmark" of the preventive arm of the Stability and Growth Pact, as well as the expenditure rules applied in national fiscal frameworks. These, together with the structural balance, are the fundamental metrics for assessing fiscal policy in the EU framework.

Recently, some institutions have modified these indicators or supplemented them with other elements since the economic and fiscal environment caused by Covid-19 has led to them being somewhat misaligned for their purpose. On the one hand, from a supervisory point of view, the uncertainty regarding estimating structural balances has been intensified by the added difficulty of projecting output gaps at this time. Furthermore, classifying extraordinary measures approved during the pandemic into recurring or one-off measures (and therefore to be excluded from the calculation of structural balances and the expenditure benchmark) and permanent measures is highly complicated. In turn, the classification of these extraordinary measures in one way or another introduces significant distortions in the indicators that have traditionally been used to evaluate fiscal policy.

Beyond these estimation difficulties, an additional conceptual issue emerges due to the poor suitability of the monitoring indicators for calculating the contribution of fiscal policy to economic activity in this context. Until now, the aforementioned monitoring indicators were also used as indicators to calculate the stimulus that fiscal policy provided to economic activity (i.e., they were also used as impulse indicators). This made sense in a context where, on the one hand, the temporary and non-recurring measures were essentially small and non-discretionary in nature (e.g. revenue from sales of telecommunications licences, etc.) and where, on the other hand, the vast majority of public expenditure was financed either from public revenues of the Member State concerned or from public debt of the same Member State.

[7] See Carnot, N. & F. de Castro (2015). "The Discretionary Fiscal Effort: an Assessment of Fiscal Policy and its Output Effect". European Commission. *Economic Papers 543* (February 2015).

In contrast, in the context of activation of the escape clause of the Stability and Growth Pact, the calculation of traditional supervisory indicators has, to some extent, taken a back seat as there are no annual fiscal requirements with which to compare the observed evolution of these aggregates. Monitoring has become more qualitative than quantitative, as can be seen, for example, in the case of the first country-specific recommendation (CSR 1) made to Spain by the Council in 2021, which states that fiscal policy must be "prudent".[8]

This change in supervision also takes place in a context of significant fiscal stimulus associated with the RTRP. Therefore, it is essential from a macroeconomic point of view to estimate the size of the contribution that fiscal policies provide to economic activity. This contribution is not well reflected in the monitoring indicators, either because part of the impulse is discounted due to its non-recurring nature or because it has no impact on the total deficit[9]. It is also not reflected in the top-down measures resulting from it.

In short, the current size of the stimulus from certain expenditure components means that – even if they are temporary (one-off measures) or do not have to be financed in the short or medium term with taxes or national debt (NGEU funds) – a gap emerges between the monitoring of the indicators that are relevant for assessing whether the fiscal policy is "prudent" as established by CSR (1), and those relevant when identifying the macroeconomic contribution of fiscal policy.

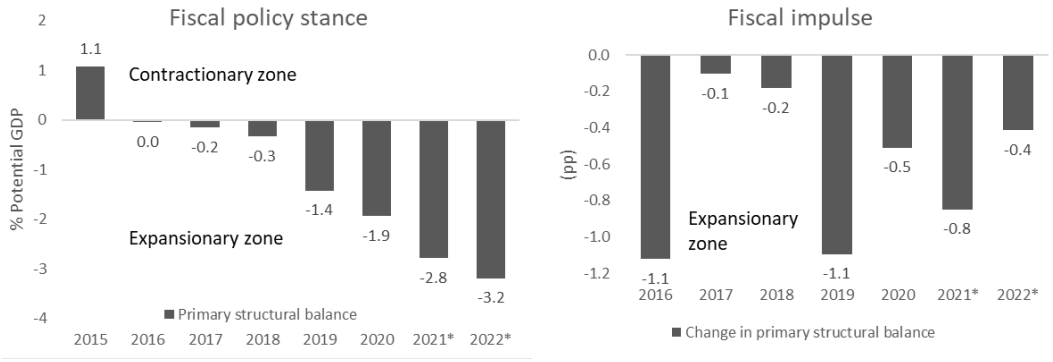
EU institutions have addressed these difficulties differently through *ad hoc* approaches that seek to address the specific features of the current context. On the one hand, the European Fiscal Board (EFB) makes a distinction between the fiscal policy stance – which would be given by the sign of the primary structural balance, so that a deficit corresponds to an expansionary stance and *vice versa* – and the fiscal impulse – which is given by the annual change in the primary structural balance, so that a negative change corresponds to an expansionary impulse and *vice versa*. Beyond the semantic questions of what are meant by stance and impulse (and if the two are different), the EFB maintains an approach based on structural balance. The volatility and uncertainty involved in its estimation, together with the fact that the impulse associated with NGEU funds is excluded might explain the counter-intuitive result of this approach according to which in the last seven

[8] Specifically, the CSR (1) recommends that Spain "in 2022, use the Recovery and Resilience Facility to finance additional investments in support of the recovery while pursuing a prudent fiscal policy. Preserve nationally financed investment".

[9] See "GUIDANCE NOTE ON THE STATISTICAL RECORDING OF THE RECOVERY AND RESILIENCE FACILITY", Eurostat, September 2021, according to which the expenditure financed by the Recovery and Resilience Facility would be reflected with a neutral effect by fiscal monitoring indicators, even though they represent an intense economic boost that directly affects the fiscal policy stance at a national level.

years the greatest fiscal impulse would have taken place in 2016 and 2019[10]. In 2020, according to this approach, the fiscal impulse would have been only half that of the previous year despite the large number of measures taken.

APPROACH OF THE EUROPEAN FISCAL BOARD APPLIED TO SPAIN



Source: AMECO, spring 2021.

The figure describes, on the one hand, the level of the primary structural balance as a percentage of potential GDP from 2015 to 2022. With the exception of 2015 and 2016, when the structural balance was positive or neutral, all other years have been negative, which according to the EFB corresponds to an expansionary fiscal policy stance. In addition, the primary structural deficit has been widening year by year, from a primary structural surplus of 1.1% of potential GDP to a primary structural deficit of -3.2% projected for 2022. Furthermore, the change in the primary structural balance from 2016 to 2022 is represented. This is what the ESB calls fiscal impulse. This has always had an expansionary sign, but changed in size. The most intense expansions occurred in 2016 and 2019 according to this approach (1.1 percentage points in each case) while in 2020 the expansion was 0.5 pp.

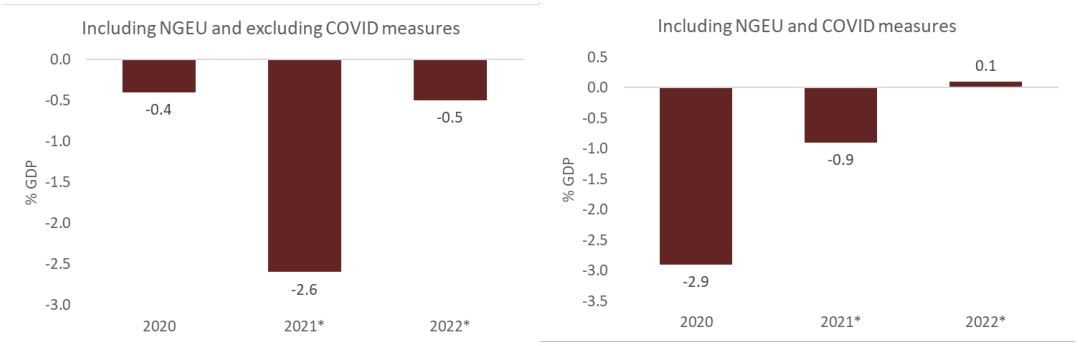
On the other hand, the Commission uses the discretionary fiscal effort[11] (DFE) as an indicator to measure the fiscal policy orientation in this context. This is a mixed method similar to the "expenditure benchmark" that combines a bottom-up approach to revenue with a top-down approach to expenditure. This indicator focuses on the annual change in primary expenditure net of discretionary revenue measures, but including the expenditure financed through NGEU funds. Depending on whether or not temporary emergency measures related to the economic/health crisis are included[12], the time of maximum impulse is concentrated in 2020 or 2021(see Figure 2). But, at any event, when the fiscal policy orientation is measured as the change of one year with respect to the previous year, this indicator is unable to show significant expansions for two consecutive years, even if a very high level of expenditure is maintained for several years.

[10] With the AMECO data available at the cut-off date of this report, on which the EFB bases its analysis.

[11] For further details on the methodology for calculating discretionary fiscal effort, see Carnot, N. & F. de Castro (2015). "The Discretionary Fiscal Effort: an Assessment of Fiscal Policy and its Output Effect". European Commission. *Economic Papers 543* (February 2015).

[12] In this case, a negative (positive) discretionary fiscal effort implies an expansionary (contractionary) fiscal policy impulse, since the growth in primary spending is greater (lower) than the economic growth in the medium term.

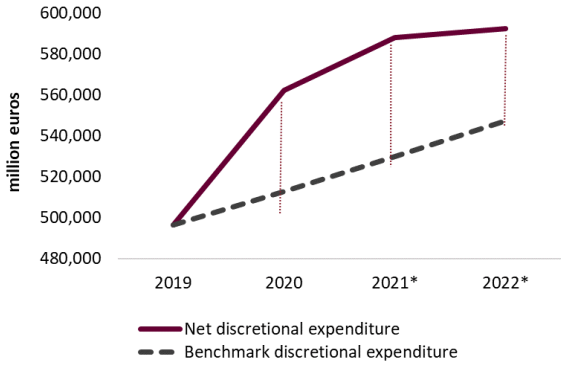
EUROPEAN COMMISSION 'S APPROACH – DISCRETIONARY FISCAL EFFORT



Source: Spring Economic Forecasts (European Commission)

An alternative way to assess the fiscal impulse in the current unusual context requires avoiding the uncertainty related to estimating the output gap and providing impulse measurements consistent with the current high expenditure levels, instead of showing a neutral fiscal policy on the basis that the expenditure remains at historically high levels from one year to the next. For this purpose, it is necessary to compare the observed (or forecast) data of net primary expenditure[13] with net primary expenditure in a benchmark scenario compatible with a stabilisation of the underlying or structural position of public finances. That is, with a benchmark scenario that might be characterised as neutral from the point of view of the fiscal policy stance. It is not, therefore, a question of comparing the level of expenditure with that of the previous year, but with a neutral fiscal policy baseline scenario. In other words, the aim is to measure, for each year, the distance between the two lines shown in the figure below.

EXPENDITURE PATHS REALISED VS NEUTRAL



Source: AIReF.

The figure represents, on the one hand, the path of net discretionary expenditure observed or planned. On the other hand, it represents the benchmark expenditure path, the latter being below the former, which is compatible with an expansionary fiscal policy stance.

[13] Net of discretionary revenue measures and cyclical expenditure on unemployment.

The benchmark expenditure path is constructed by projecting the level of net discretionary expenditure in 2019 with the potential performance of the Spanish economy over the medium term. AIReF's current projections forecast a nominal potential growth of the Spanish economy of 3.3% in the medium term. Consequently, if discretionary expenditure grew at the same rate, the expenditure ratio over the cycle would stabilise in the medium term, which is consistent with a neutral fiscal policy – in the absence of new revenue measures.

$$Benchmark\ expenditure_t = net\ discretionary\ expenditure_{2019} * \left(1 + g_n^{pot}\right)^{t-2019}$$

$$Fiscal\ impulse_t = 100 * \frac{(net\ discretionary\ expenditure_t - benchmark\ expenditure_t)}{GDPn_t}$$

Where:

$$Net\ discretionary\ expenditure_t = primary\ expenditure_t - cyclical\ expenditure\ on\ unemployment_t - revenue\ measures_t$$

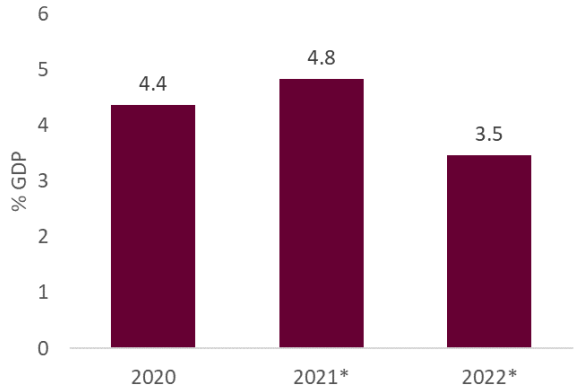
$GDPn_t$, is the nominal GDP in year t

g_n^{pot}, is the nominal potential growth rate in the medium term

This indicator – similar to the DFE used by the Commission – includes European funds, does not smooth investment, eliminates interest expenditure and cyclical expenditure on unemployment[14], but does not eliminate the temporary and emergency measures adopted during COVID. This is because - even assuming that they were of a one-off nature and, therefore, should be excluded from the indicators that try to assess sustainability in the medium and long term - they are relevant in order to estimate the contribution of fiscal policy to economic activity and, therefore, from this perspective they must, at any event, be included. In addition, and unlike the DFE, the expenditure incurred (or forecast) is not compared with that of the previous year but with a neutral fiscal policy baseline scenario. This makes it possible to capture the magnitude of the fiscal impulse associated with historically high levels of public spending, although there have been no additional increases compared with previous years.

[14] Calculated as the product of the average benefit per unemployed person multiplied by the annual increase in the number of unemployed people – assuming, therefore, that all the increase in unemployment that has occurred since 2019 is of a cyclical nature.

FISCAL IMPULSE IN SPAIN, OBSERVED AND FORECAST IN THE DBP, AIREF METHODOLOGY



Source: AIReF

This approach returns a very significant impulse in 2020 and 2021, of 4.4% and 4.7% of GDP respectively, compatible with the role that fiscal policy is playing in these years. In 2022, the draft Budgetary Plan also envisages a considerable impulse, albeit somewhat less than in previous years, taking into account the contribution of the NGEU funds amounting to 3.5% of GDP.

Two points need to be made with regard to this indicator. Firstly, it should be pointed out that its nature is descriptive and not prescriptive. It does not seek to assess whether the contribution of fiscal policy has been adequate, but to quantify the magnitude of that contribution. Its approach is to quantify the volume of impulse provided by fiscal policy, not to assess the appropriateness of that impulse.

3.5 Ex post analysis

This section sets out an *ex-post* analysis of the Government's macroeconomic projections, in accordance with European Directive 2011/85/EU, on requirements for budgetary frameworks of the Member States, which promotes regular assessments of the projections on the basis of objective criteria. This Directive is reflected in Organic Law 6/2013 on the establishment of an Independent Authority for Fiscal Responsibility, which states, in Article 14, that the report on macroeconomic forecasts will include an assessment of the existence of significant biases in the forecasts over a period of four consecutive years.

The existence of systematic errors and biases in the Government's forecasts is analysed, and a comparison is made with different institutions. The forecasting error for the purposes of the analysis is defined as the difference between the

predicted and the observed value. The analysis takes into account the macroeconomic forecasts[15] for the current year and the following year contained in the report on the Stability Programme Update, published between March and May of each year and in the Yellow Paper of the General State Budget, which is generally drawn up between September and October of each year[16]. Hereinafter, we will refer to these two moments as "spring" and "autumn". The observed value is taken from the first performance of the Quarterly National Accounts.

There are systematic errors and biases in the Government's forecasts, which are concentrated, to a greater extent, in the estimates for the following year and in the variables relating to public consumption and the external sector. There are deemed to be systematic errors if the differences between the predicted and observed values remain continuously in positive or negative territory for at least four consecutive years, and these differences are not attributable to the study variable. The bias committed when estimating macroeconomic variables is approximated by calculating the average error, $EM = \frac{1}{N}\sum_{t=1}^{N} e_t$,, where e_t is the forecasting error and N the number of observations. Its significance is tested by estimating a linear regression of the forecasting errors with respect to a constant, of the form $e_t = \mu + \varepsilon_t$., where the null hypothesis of the test of significance is that the bias is null, $H_0: \mu = 0$, where the test statistic is $t_\mu = \frac{\hat{\mu}}{\sqrt{\widehat{\sigma_{\hat{\mu}}}}} \sim N(0,1)$.

There is a bias in the Government's forecasting towards underestimating public consumption, while there is a tendency to overestimate export growth. The results for the period 2011-2020 are shown in the first figure of Annex 1. In these figures, for the GDP growth estimates there are continuous runs of negative errors, from 2008 to 2015 for the forecast for the year and between 2014 and 2018 for those of the following year. Positive values from 2016 onwards are also seen in the estimates for the following year in the estimated growth of exports and imports and in the estimates prior to 2014 for employment. In addition, there is a systematically negative error in public consumption forecasts. However, the average error of the estimates is not statistically different from zero, except in the forecasts of public consumption expenditure, which tend to underestimate expenditure, and in the one-year-ahead forecast for exports, which are optimistic.

Exports, imports and gross fixed capital formation are the variables that contribute most to the errors made in estimating GDP growth. It is worth noting

[15] Gross domestic product (GDP), final consumption expenditure of households and NPISHs (hereinafter private consumption), final consumption expenditure of the GG. (hereinafter referred to as public consumption), gross fixed capital formation, exports and imports of goods and services, all in terms of volume, as well as employment measured in terms of full-time equivalent employment.

[16] In the absence of such forecasts, those made in other reports close to such dates are taken.

the impact on the GDP forecast of the error made when forecasting private consumption for 2020 due to the failure to forecast the observed contraction resulting from the emergence of COVID-19 (see figures in Annex 1).

There are no significant biases in the forecasts made by the Government over the last four years. A bias is considered significant if the government's forecasting error is large, unjustified and systematic for four consecutive years. An error is considered large when it falls outside the interquartile range of the panel of institutions[17]. It is also deemed to be unjustified when the forecast does not result in a better approximation to the performance of the variable than the forecast of the panel of institutions and is not supported by the principle of prudence. Table 3 of Annex 1 shows the classification of errors made by the Government over the last ten years, with more detailed information on errors and interquartile intervals of the panel of institutions over the last five years in Table 4. In general, the greatest concentration of significant errors occurs in the estimates of GDP, public consumption expenditure and imports in the current year, while for the following year the number of significant errors detected in exports is noteworthy.

The biases committed by the Government in estimating GDP in the current year and public expenditure in the following year are significantly different from those committed by other institutions. To determine whether the differences observed between the biases of the different institutions are significant, the equality of means test is used in two populations that are not considered independent, with the null hypothesis being that the differences in the prediction errors of two organisations are zero H_0: $\bar{d} = 0$. The test statistic is defined as $t_d = \frac{\bar{d}}{s_d/\sqrt{N}} \sim t_{N-1}$, where $\bar{d} = \frac{1}{N}\sum_{t=1}^{N} d_t$, $d_t = e_{t1} - e_{t2}$, e_{t1} and e_{t2} are respectively the forecasting errors on estimating the period t committed by the organisation j with $j = \{1, 2\}$ and N is the number of observations. Table 1 shows the estimate of the bias of the different organisations, as well as its significance, the value of the statistic of the equality of means test and the value from which the null hypothesis is rejected for said test. It is observed that all the organisations present biases of a similar size, sign and significance, which does not lead to a rejection of the null hypothesis of equality, except in the GDP estimates for the current year, where the Government presents an optimistic and relatively small bias in relation to the negative biases of the other organisations, and in the one-year-ahead estimates of public consumption, where it underestimates spending to a greater extent than the other organisations.

[17] Made up of the Bank of Spain, the European Commission and the organisations included in the Funcas Panel. Neither the International Monetary Fund nor the OECD are included due to the lag that exists in the set of information used when making the forecasts.

4. ANALYSIS OF 2021-2021 BUDGETARY SCENARIO

For its central scenario, AIReF estimates a deficit of 4.8% of GDP for the GG in 2022, after reaching 7.9% in 2021. In both cases, these are lower than the figures in the Budgetary Plan. The Government expects to close 2021 with a deficit of 8.4%, which would narrow by 3.4 points in 2022 to 5% of GDP. For its part, AIReF considers that the deficit will be lower in 2022 and also, therefore, forecasts a reduction in the deficit that is 0.3 points lower than the Government's for that year. The economic recovery, the progressive withdrawal of the measures implemented to mitigate the effects of the COVID–19 crisis and the tax changes included in the Budgetary Plan will drive this significant deficit reduction. In the opposite direction, the evolution of the underlying expenditure reflected in the different draft budgets implies a smaller reduction in the deficit.

The Budgetary Plan separately presents the revenue and expenditure projections without including the NGEU funds[18] and those from the RTRP and excludes REACT-EU funds from the fiscal scenario. The Budgetary Plan justifies the division of the fiscal projections due to the neutrality of the RTRP funds.

[18] For the purposes of this report, the Next Generation EU (NGEU) funds include both the funds that finance the Recovery, Transformation and Resilience Plan (RTRP) and the funds of the REACT EU initiative

However, it does not take into account the REACT-EU funds with a neutral effect on the deficit over the period, but with a one-off effect in each one of the years in which it is executed due to the time lag in the recording of expenditure and revenue. For this reason, to make a standardised comparison, the revenue and expenditure forecast by AIReF are presented without NGEU funds, i.e., without RTRP or REACT EU funds. However, the comparisons in the balance are presented including the effect of the REACT-EU funds.

TABLE 2. GENERAL GOVERNMENT DEFICIT (% GDP)

		2021		2022	
	2020	DBP	AIReF	DBP	AIReF
GG	**-11.0**	**-8.4**	**-7.9**	**-5.0**	**-4.8**
CG	-8.4	-6.3	-6.3	-3.9	-3.9
SSFs	-2.6	-1.5	-1.5	-0.5	-0.5
ARs	-0.2	-0.6	-0.4	-0.6	-0.6
LGs	0.3	0.0	0.3	0.0	0.2

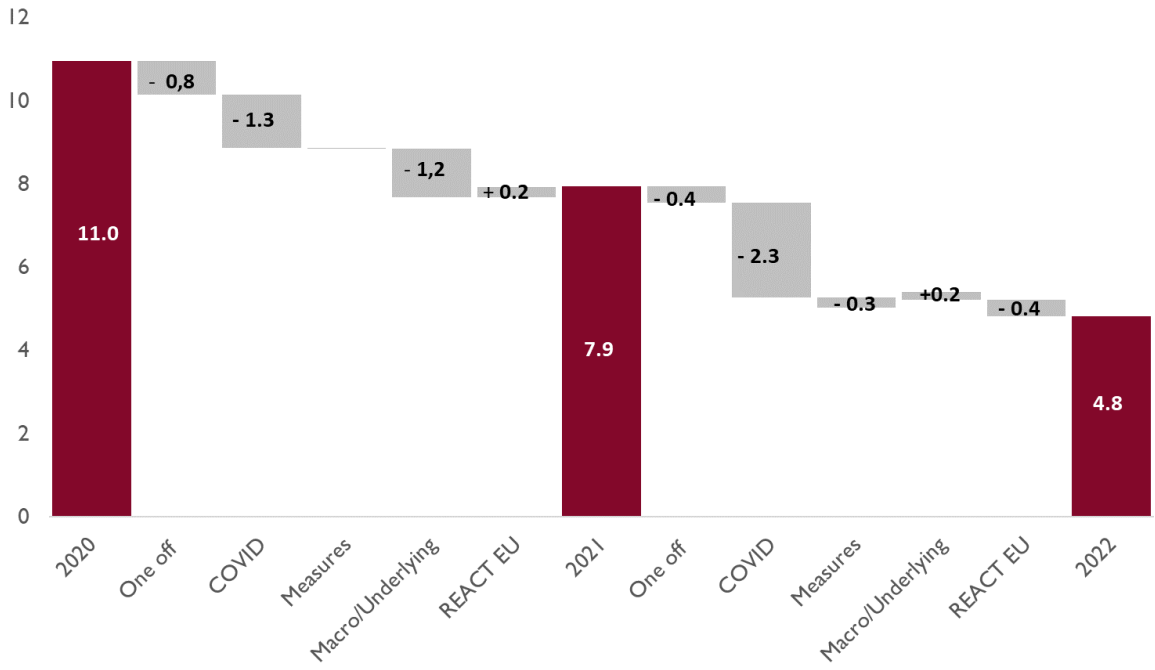
Source: AIReF and 2022 Budgetary Plan

The reduction in the deficit in 2022 represents an improvement of 3.1 points in AIReF's scenario compared with the reduction of 0.3 points in the Budgetary Plan scenario. The reduction in the deficit is very similar in AIReF's scenario for 2021 and 2022, falling by 3 and 3.1 points, respectively, while the Government shows a greater fall - 3.4 points - in 2022 as it starts from a higher deficit level - 8.4% - in 2021.

The reduction in the deficit in 2022 is mainly due to the phasing out of COVID measures and the reduction of non-recurrent operations, as well as the effect of REACT-EU funds. In 2021, the weight of the deficit as a proportion of GDP falls by three points, dropping from 11% in 2020 to the forecast 7.9%. The bulk of this decrease - 1.3 points - is explained by the progressive withdrawal of COVID measures, while the lower impact from non-recurring operations contributes 0.8 points to the reduction. In addition, the improvement in economic activity and the underlying behaviour of expenditure accounts for 1.2 points. The policy measures approved would have little effect as the positive measures are offset by the negative measures. For its part, the time lag between revenue and expenditure of the REACT-EU funds explains 0.2 points of the deterioration. In 2022, the phasing out of the COVID measures explains 2.3 points, the lower recurring operations explain 0.4 points and the effect of the measures approved, particularly in the 2021 GSB, explain 0.3 points. In contrast, the underlying behaviour of expenditure more than offsets the improvement in revenue due to the cycle, with both factors aggregated explaining a worsening of 0.2 points. Lastly, the effect of the time lag between

revenue and expenditure of REACT-EU reduces the deficit by 0.4 points to stand at 4.8% in 2022.

FIGURE 33. EVOLUTION OF DEFICIT BY COMPONENT, AIREF (% GDP)



Source: AIReF

AIReF's estimates, excluding the NGEU Funds, place revenue at 42% and 40.2% of GDP, in 2021 and 2022, respectively, 0.7 and 0.4 points above the forecast contained in the Budgetary Plan. If the denominator effect caused by AIReF's lower nominal GDP is eliminated, the differences would be 0.4 points in 2021 and the proportions would be equal in 2022. In nominal terms, revenue growth is higher in 2021 than in 2022 in both scenarios. In 2022, revenue continues along its upward path, albeit with less dynamism in AIReF's scenario with forecast growth of 3.6%, compared with the 4.6% forecast by the Government. Incorporating the effect of the NGEU Funds, revenue would reach a proportion of 43.1% and 42.6% of GDP for 2021 and 2022, respectively, according to AIReF's scenario.

TABLE 3. REVENUE AND EXPENDITURE OF THE GENERAL GOVERNMENT WITHOUT NGEU (% GDP)

% GDP		2021		2022	
	2020	DBP	AIReF	DBP	AIReF
REVENUE	41.5	41.3	42.0	39.8	40.2
EXPENDITURE	52.4	49.6	49.7	44.7	45.2
NET LEND/BORR	**-11.0**	**-8.4**	**-7.7**	**-5.0**	**-5.0**

Source: AIReF and 2022 Budgetary Plan

TABLE 4. REVENUE AND EXPENDITURE OF THE GENERAL GOVERNMENT WITH NGEU (% GDP)

		2021	2022
% GDP	2020	AIReF	AIReF
REVENUE	41.5	43.1	42.6
EXPENDITURE	52.4	51.0	47.5
NET LEND/BORR	**-11.0**	**-7.9**	**-4.8**

Source: AIReF

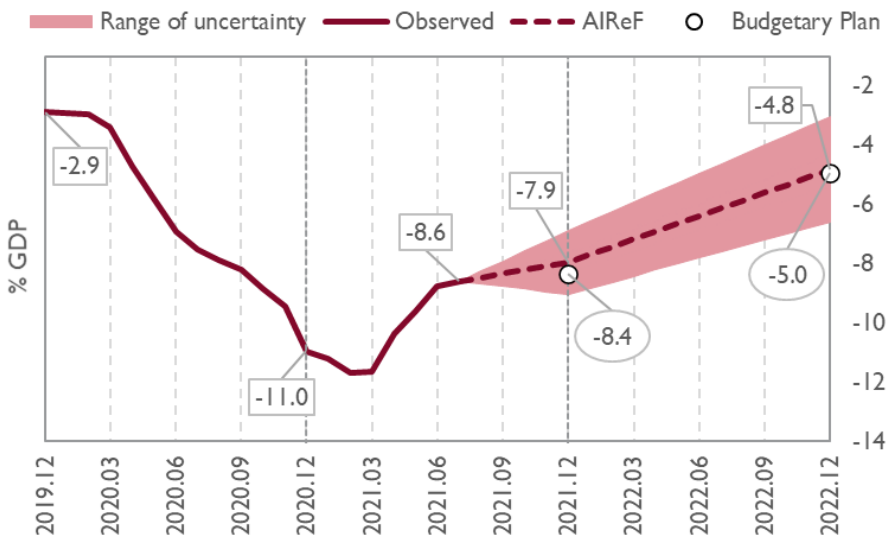
TABLE 5. REVENUE AND EXPENDITURE OF THE NGEU FUNDS (% GDP) (AIREF)

	NGEU		RTRP		REACT EU	
% GDP	2021	2022	2021	2022	2021	2022
REVENUE	1.1	2.4	0.7	2.0	0.4	0.4
EXPENDITURE	1.3	2.3	0.7	2.0	0.6	0.3
NET LEND/BORR	**-0.2**	**0.1**	**0.0**	**0.0**	**-0.2**	**0.1**

Source: AIReF

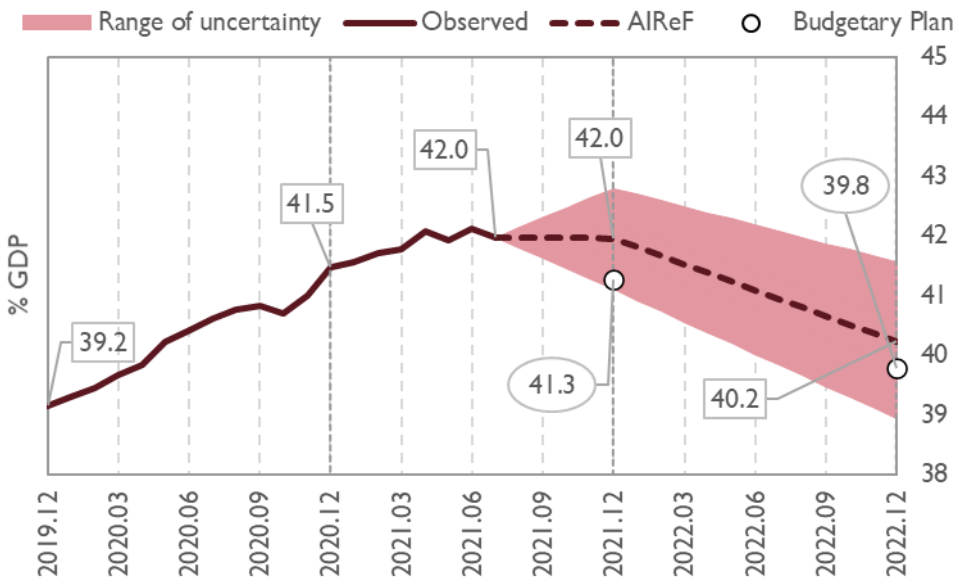
According to AIReF's estimates, expenditure without NGEU funds will stand at 49.7% and 45.2% of GDP in 2021 and 2022, respectively, compared with 49.6% and 44.7% in the Budgetary Plan. The higher proportion of expenditure as a percentage of GDP in AIReF's scenario is explained by lower GDP in nominal terms. Expenditure is lower in AIReF's scenario, which forecasts an increase of 1.4% in 2021 compared with 2% in the Budgetary Plan and a fall of 1.6% in 2022 compared with 2.1% in the Government's scenario. The execution of the NGEU forecast by AIReF would increase the weight of expenditure as a proportion of GDP by 1.3 and 2.3 points in 2021 and 2022, respectively.

FIGURE 34. EVOLUTION OF GENERAL GOVERNMENT BALANCE



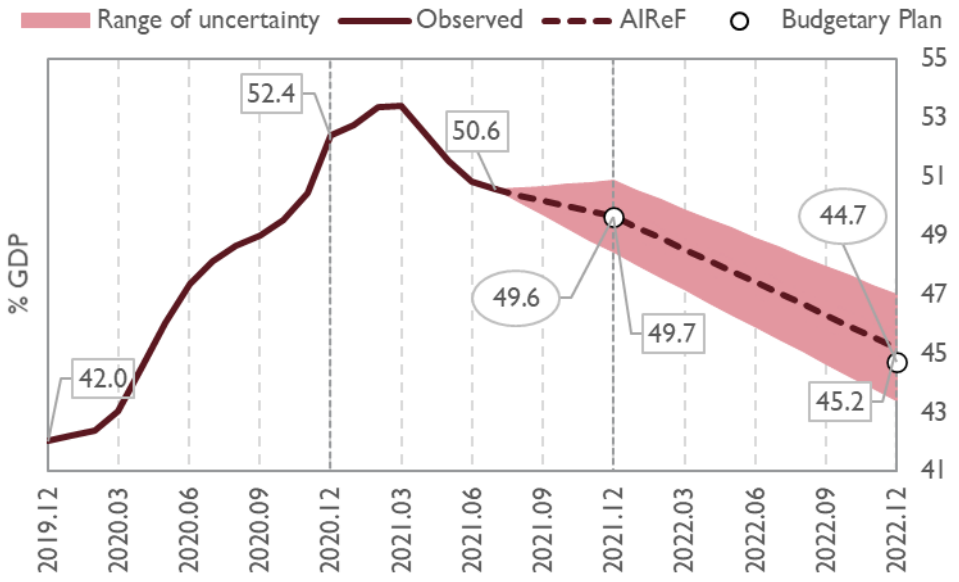
Source: AIReF and 2022 Budgetary Plan

FIGURE 35. EVOLUTION OF GG REVENUE



Source: AIReF and 2022 Budgetary Plan

FIGURE 36. EVOLUTION OF GG EXPENDITURE



Source: AIReF and 2022 Budgetary Plan

4.1 Evolution of GG revenue

AIReF estimates that the GDP weight of revenue will be 0.7 points higher in 2021 and 0.6 points higher in 2022 compared with the figures presented in the Budgetary Plan. Of the 0.7 points difference in AIReF's scenario for 2021, 0.3 points are due to the higher weight of social contributions, 0.2 points to the

weight of tax revenue and the remaining 0.2 points to other revenue. In 2022, the difference in the GDP weight of revenue falls to 0.4 points, which are mostly explained by tax revenue - 0.3 points - and also by social contributions - 0.1 points - with the lower weight of property income offset by the higher weight of other revenue.

TABLE 6. REVENUE IN % GDP BUDGETARY PLAN VS AIREF (WITHOUT NGEU FUNDS)

		2021			2022		
	2020	DBP	AIReF	Difference	DBP	AIReF	Difference
REVENUE	**41.5**	**41.3**	**42.0**	**0.7**	**39.8**	**40.2**	**0.4**
TAXES	**22.9**	**23.6**	**23.7**	**0.2**	**22.8**	**23.1**	**0.3**
On production	11.3	11.4	11.7	0.2	11.3	11.5	0.2
On income	11.2	11.7	11.6	-0.1	11.1	11.1	0.0
On capital	0.4	0.4	0.5	0.0	0.4	0.4	0.1
CONTRIBUTIONS:	**14.5**	**13.7**	**13.9**	**0.3**	**13.2**	**13.3**	**0.1**
Other revenue	**4.2**	**4.1**	**4.3**	**0.2**	**3.8**	**3.8**	**0.0**

Source: AIReF and 2022 Budgetary Plan

The denominator effect caused by the lower level of GDP in AIReF's scenario fully explains the higher level of revenue in 2022 in AIReF's scenario. In millions of euros, total revenue in AIReF's scenario for 2022 remains slightly below the Government's forecast, with a higher level of revenue from taxes on production and imports and taxes on capital and a lower level from taxes on income, social contributions and other revenue.

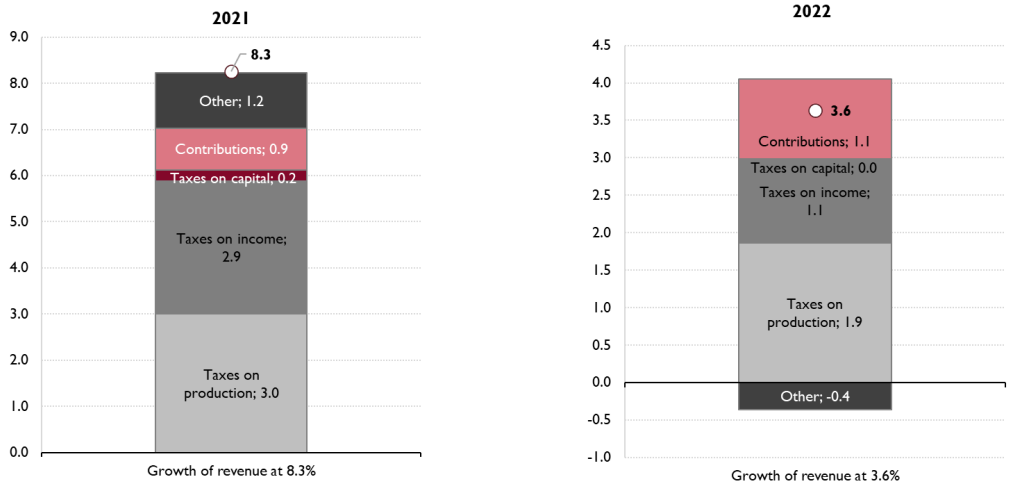
After a high elasticity of revenue with respect to GDP in 2021, AIReF's forecasts indicate a substantial reduction in this elasticity for 2022. In general terms, AIReF recovers levels of elasticity with respect to the macroeconomic variables that determine the tax bases more in line with historical averages. There is evidence of a high sensitivity of revenue elasticity to a positive transitory shock to income. The ECB estimates that Spain is the country in which the elasticity changes the most as a reaction to a positive transitory shock to income, going from 1.06 in long-term equilibrium to 1.8 in the expansionary period. In this regard, there are several factors that explain the exceptional elasticity of tax revenues with respect to GDP in 2021. Firstly, the composition of growth and the decoupling of the evolution of employment from GDP, together with income maintenance policies, would have allowed a better performance of Personal Income Tax. In relation to indirect taxes, changes in the composition of the household consumption basket may have been influenced by the health and economic crisis itself. Other factors might be the collection mechanism itself or the impact of the increase in card payments on tax fraud.

TABLE 7. REVENUE IN % CHANGE BUDGETARY PLAN VS AIREF (WITHOUT NGEU FUNDS)

	2021			2022		
	DBP	AIReF	Difference	DBP	AIReF	Difference
REVENUE	**7.3**	**8.3**	**1.0**	**4.6**	**3.6**	**-1.0**
TAXES	**11.1**	**11.1**	**0.0**	**4.9**	**5.2**	**0.3**
On production	9.4	11.1	1.6	7.2	6.7	-0.5
On income	12.5	10.7	-1.9	3.3	4.1	0.8
On capital	16.5	24.1	7.6	-12.8	-5.5	7.3
CONTRIBUTIONS:	**1.9**	**3.2**	**1.3**	**5.0**	**3.2**	**-1.8**
Other revenue	**4.9**	**10.1**	**5.2**	**1.8**	**-3.5**	**-5.3**

Source: AIReF and 2022 Budgetary Plan

FIGURE 37. CONTRIBUTION TO THE GROWTH IN REVENUE 2021-2022. GENERAL GOVERNMENT IN % GDP.



Source: AIReF

Regarding tax revenues, AIReF estimates the same recovery in 2021 as the Budgetary Plan and growth for 2022 that is 0.3 points higher. This type of revenue accounts for approximately 60% of total revenue and its evolution will therefore set the tone for the evolution of revenue as a whole. The recovery is unevenly distributed among the different headings, with this being more intense in 2021. Following the fall recorded during the pandemic, its recovery will lead to taxes on products and imports being the main contributors to growth with 0.55 and 0.33 points of the increase estimated by AIReF in 2021 and 2022, respectively. For their part, taxes on income will drive growth by 0.52 and 0.2 points in both periods.

The macroeconomic scenario and the assessments of regulatory measures forecast by AIReF generate a different timing of the evolution of the different tax categories. The main divergences occur in VAT and Corporate Income Tax, for which AIReF expects almost 0.1 points more of GDP in 2022 than the

scenario presented in the draft GSB. In contrast, it expects a more pessimistic collection of Personal Income Tax, Special Taxes and other revenue. A detailed analysis of the forecast evolution of the main tax categories of the ordinary regime, before their transfer to the Autonomous Regions and Local Governments in terms of collection and their subsequent transfer to national accounts is presented below. The forecasts for 2022 have been made incorporating the tax collection known up to August 2021.

TABLE 8. DIFFERENCE IN TAX REVENUE IN CASH TERMS IN 2022 BETWEEN AIREF AND DRAFT 2022 GSB (% GDP)

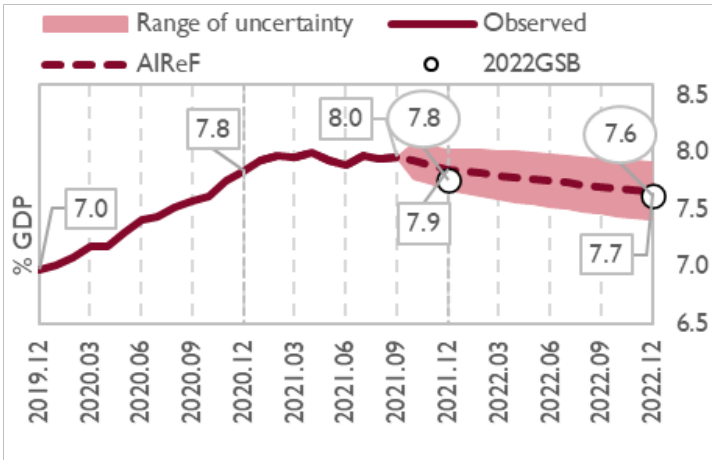
	2022 GSB	AIReF	Difference
Tax revenue	**17.7**	**17.9**	**0.2**
PIT	7.6	7.7	0.0
CORPORATE	1.9	1.9	0.1
VAT	5.8	5.9	0.1
STs	1.7	1.6	0.0
Other	0.8	0.8	0.0

Source: AIReF and Draft 2022 GSB

4.1.1 PIT

AIReF forecasts that the weight of PIT as a proportion of GDP will reach 7.9% in 2021 and will fall by 0.2 in 2022, compared with the 7.8% and 7.6% forecast in the draft GSB. After being the tax that best withstood the crisis caused by the pandemic, in 2021 it has been boosted by the recovery in employment and private wages. Its evolution will depend on two opposing elements. On the one hand, the most important part, that of withholdings, which will depend largely on the evolution of the wage bill, and, on the other hand, the evolution of tax due less tax credits, tax withheld and prepayments.

FIGURE 38. EVOLUTION OF REVENUE FROM PIT (% GDP)



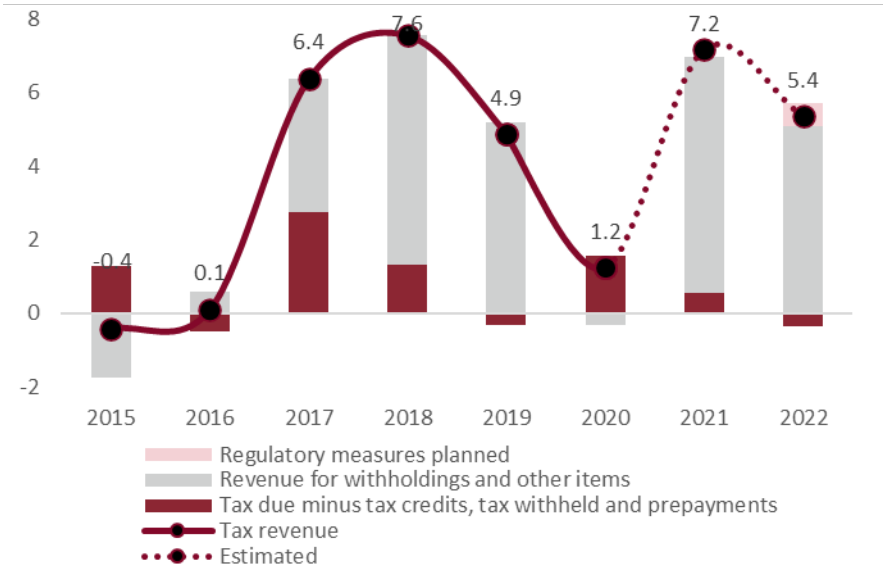
Source: AIReF and 2022 GSB

AIReF forecasts growth, in rates of change, of the collection of PIT of 7.2% and 5.4% in 2021 and 2022, respectively, compared with the 6.6% to 6.7% of the draft GSB. After incorporating the latest available information, AIReF expects better results at the end of 2021, albeit with a less optimistic evolution in 2022 than forecast in the draft GSB. As a result, in nominal terms, AIReF expects lower tax collection than that included in the draft GSB for 2022. Of the expected increase in 2022, 5.1 points are determined by withholding taxes and other revenue, the evolution of which is aligned with that of compensation of employees differentiated for public and private wages. Another 0.6 points of the increase is due to the policy measures that incorporate, *inter alia*, the impact of the modification to the limit of social security contributions introduced in the 2021 GSB and the increase in rates for higher incomes. Finally, AIReF forecasts that the tax due less tax credits, tax withheld and prepayments will grow below the increase in income not subject to withholding[19] on discounting the increase in 2021 due to the income generated by receivers of the benefit for job-retention schemes (ERTEs)[20], which produces a result lower than that of 2021 and represents a negative contribution to growth of 0.4 points.

[19] Income related to leased properties, capital gains and investment income.

[20] Those to whom the SEPE did not apply withholding tax in 2020 as the amount did not exceed the minimum threshold.

FIGURE 39. CONTRIBUTION TO GROWTH IN PIT BY COMPONENT (% CHANGE)



Source: AIReF and AEAT

Withholdings, the main component of which is wages, will in turn perform differently in the public and the private sectors. For 2022, the withholding tax base for private wages is projected to grow by 5.8%, in line with the growth in compensation of employees and above the previous year. The withholding bases to be paid by the General Government are aligned with the revaluation of public salaries announced in the draft GSB for 2022, with a fall in their contribution to the growth in accrued withholdings with respect to that recorded during the pandemic as a result of the increase in health and education personnel.

FIGURE 40. CHANGE (%) IN ACCRUED PIT WITHHOLDINGS

Source: AIReF and AEAT

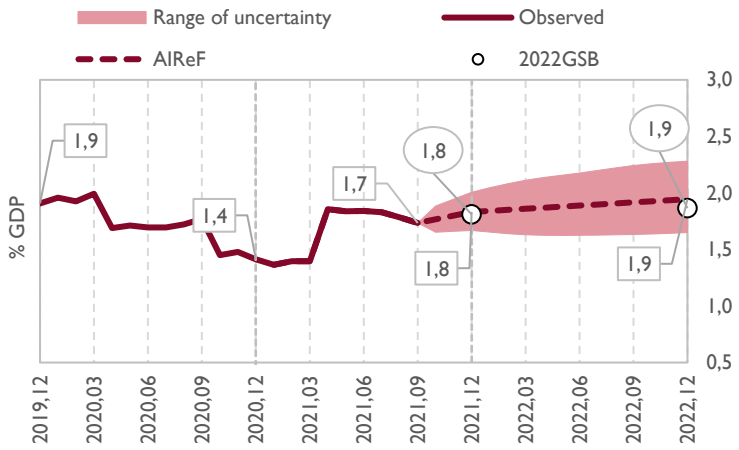
Personal income tax will grow by 7.4% and 5% in national accounting terms in 2021 and 2022. A higher adjustment from cash to national accounting is expected in 2021 compared with 2022 due to a larger time lag between the cash and the accrual of the first few months of each year. Given that January and February 2021 were still affected by the pandemic, as they are moved to 2020 in national accounting terms, they produce a higher rate of change compared with that obtained in cash terms for 2021 and a lower rate for 2022.

4.1.2 Corporate Income Tax

AIReF estimates that Corporate Income Tax will reach 1.8% of GDP in 2021 and 1.9% in 2022, in line with the draft GSB, although it expects a higher collection than the latter for 2022. Following the 33.2% drop in 2020, AIReF estimates a recovery in Corporate Income Tax in 2021 of 38.7% and growth in 2022 of 14.8%, compared with the 38% and 11.8% forecast by the Government. In 2021, a recovery of around 30% is estimated, with estimated accrual that is still with lower revenues and returns than 2019 levels. However, the first instalment payment for 2021 includes exceptional revenue for an amount of €1.1bn from a merger that provides an additional 0.69 points of growth. In addition, the forecast includes the effect of the regulatory change approved in the 2021 GSB that limits the exemption on the amount of income obtained from dividends and capital gains generated by subsidiaries. As its impact, valued at €1.52bn, affects the 2021 tax accrued, it will mainly affect collection in 2022 when the annual tax return for the previous year is filed. In addition, the tax due less tax credits, tax withheld and prepayments accrued in the 2020

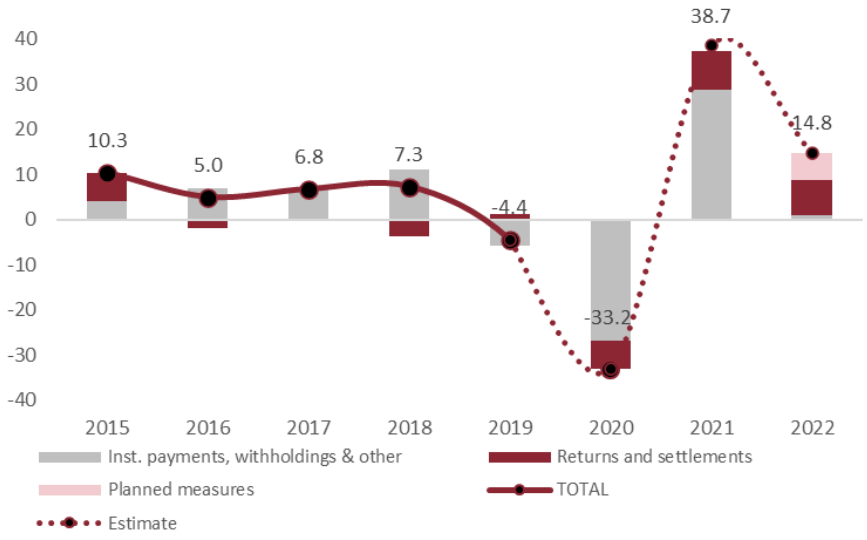
declaration, which was filed in July 2021, was exceptionally low. A lower volume of refunds is therefore expected in 2022, which will result in a higher level of tax collection. The evolution of the tax is linked to the macroeconomic variable that best reflects the behaviour of this tax category - the gross operating surplus - although it shows some irregularities due to the mechanics of the tax and the definition of its taxable event.

FIGURE 41. EVOLUTION OF REVENUE FROM CORPORATE INCOME TAX (% GDP)



Source: AIReF and 2022 GSB

FIGURE 42. CONTRIBUTION TO GROWTH IN CIT BY COMPONENT (% CHANGE)



Source: AIReF and AEAT

In the transition to national accounting, the settlement of the tax will lead to a smoothing effect on its evolution between 2021 and 2022, which is estimated at 28.7% and 2.8% respectively. The mechanics of collecting the tax follows a

similar pattern to that for Personal Income Tax, i.e., through withholdings paid over the year, specifically for this tax, capital withholdings and three instalment payments, and a settlement in relation to what was paid the previous year. It is important to take into account the aforementioned effect of lower refunds in cash, which results in higher collection, but not higher revenue in national accounting terms. This is due to the fact that they were requested the previous year and therefore the lower refunds accrued in 2020 and 2021, which will be requested in the 2021 and 2022 tax returns, reduce the adjustment of cash to national accounting, thereby lowering the rates of change.

4.1.3 VAT

AIReF estimates a weight of VAT as a proportion of GDP of 5.8% and 5.9% for 2021 and 2022, respectively, 0.1 points higher than that forecast for both periods in the draft GSB. So far this year, VAT has recorded a recovery of 14.8% compared with the previous year after recording significant falls as a result of the pandemic and the "Filomena effect", as well as extraordinary refunds (through the VAT arrangements with the provincial councils of the Basque Country). This increase was seen despite the incorporation as from June of the rate reduction in order to mitigate the rise in the price of electricity[21], which counteracts the effect of the measures approved in the 2021 GSB. With the data received up to August and discounting the effect of regulatory measures and extraordinary refunds, net growth of 11.7% is estimated for the end of 2021, compared with 11.1% by the Government. The regulatory measures estimated by AIReF provide a greater contribution from the increase in rates on sugary drinks and a lower reduction due to the reduction in the rate on electricity (see Section 4.4. on measures). As a consequence of the above, AIReF forecasts that VAT will grow by 10.6% at year-end 2021, compared with 9.1% forecast by the Government, which in nominal terms amounts to just over 900 million.

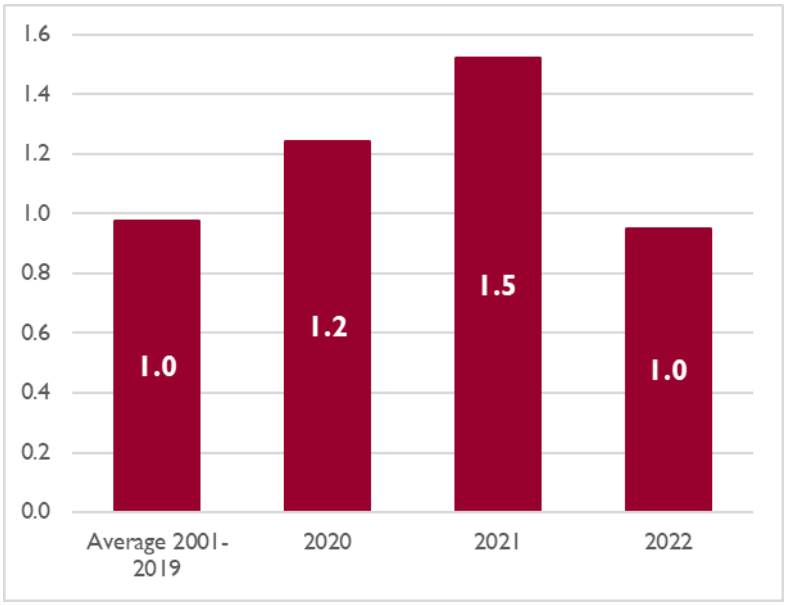
For 2022, it is estimated that the tax base will evolve in line with that expected for national demand, returning to an elasticity in line with the average of the historical series. Collection growth would be 8.8%, compared with the 9.5% forecast by the Government. However, in nominal terms, AIReF expects a higher level of collection in 2022 than the GSB due to the more optimistic year-end forecast in 2021. The elasticity deduced from AIReF's forecasting models shows a return to an elasticity that is in line with the historical average unit elasticity with regard to the growth in national demand in nominal terms. To this end, its result is contrasted with the elasticity calculated through growth of

[21] RDL 12/2021, in force until 31/12/2021

the series in cash excluding regulatory impacts with respect to that of the macroeconomic variables of domestic demand.

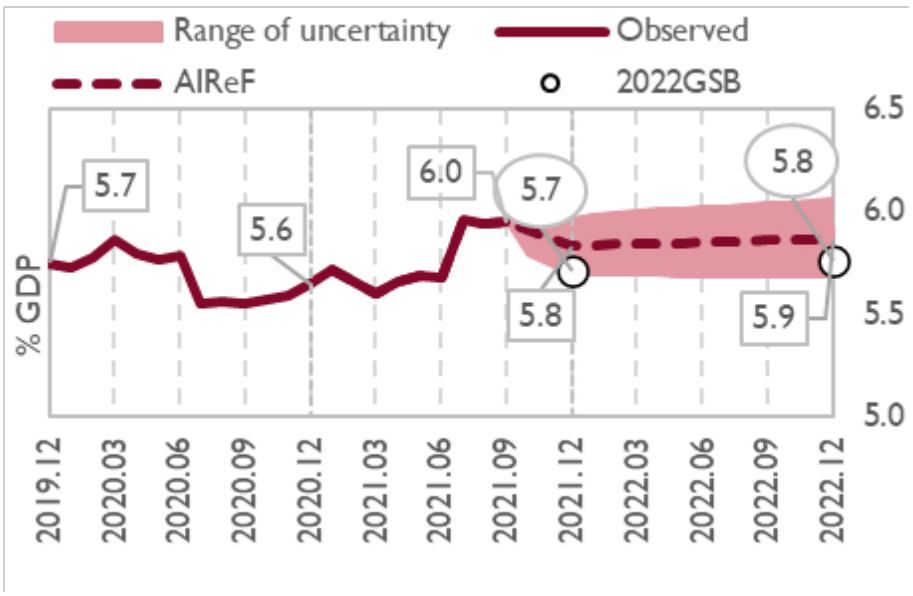
The higher elasticity observed in 2020 and 2021 might result from changes in the composition of the consumption basket and the increase in card payments. In 2020, the fall in economic activity combined with the effects of the lockdown led to an increase in the percentage of household spending on goods at super-reduced rates from 8% to 10% according to the Household Budget Survey. This resulted in a higher fall in tax collection than would have been deduced directly from the fall in domestic demand. As economic activity has recovered in 2021 and restrictions have been lifted, a return to historical consumption patterns would have similarly led to higher collection. Another factor that is more difficult to verify, but which could have had an influence, is the increase in card payments. This might have facilitated the emergence of previously undeclared income. Once these effects have passed, AIReF expects a return to the usual elasticities in 2022.

FIGURE 43. ESTIMATION OF THE ELASTICITY OF VAT (CASH EXCLUDING REGULATORY IMPACTS) WITH RESPECT TO DOMESTIC DEMAND (% GDP)



Source: AEAT, INE and AIReF

FIGURE 44. EVOLUTION OF VAT REVENUE (% GDP)



Source: AIReF and 2022 GSB

The evolution of VAT in national accounting terms stands at 11.3% and 9.1% for 2021 and 2022, respectively. The shift of taxes to their month of accrual transfers the revenues of the months of January and February, producing higher levels in 2021 and 2022, with a particular impact in 2021, given that the collection of VAT in these first two months was still greatly affected by the pandemic. On the other hand, the expected evolution leads to an accrual for these periods that is higher than that of the previous year. Therefore, the shift of the refunds to their year of accrual results in higher refunds in national accounting terms for 2021 and 2022. As a result, there is a greater negative national accounting adjustment, although it is lower than the positive adjustment due to the lag of the months of January and February, which generates higher growth, 0.7 and 0.3 points more than in cash terms.

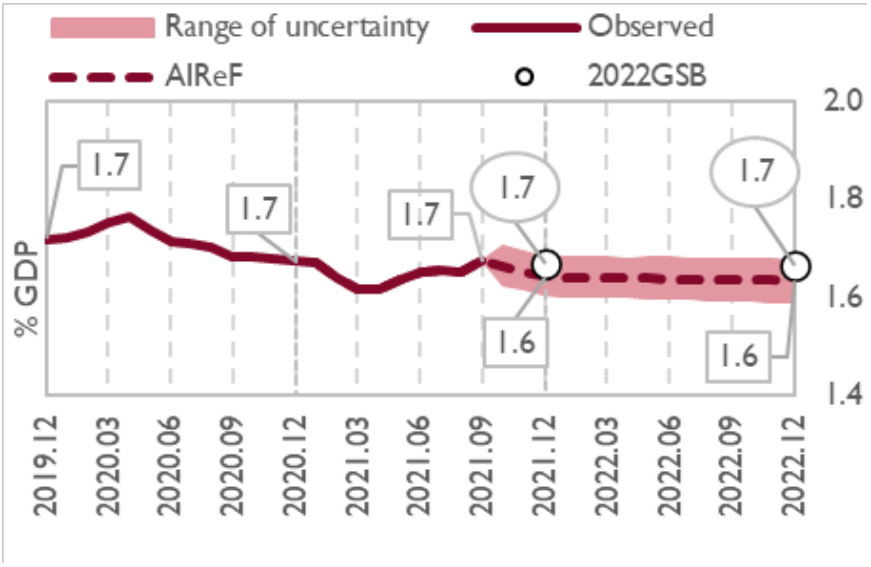
4.1.4 Special Taxes

AIReF estimates that Special Taxes will stand at 1.6% of GDP in 2021 and 2022, 0.1 points below the draft GSB. The expected growth in Special Taxes as a whole amounts to 5% in 2021 and 7.5% in 2022, compared with the 7.4% and 8.2% forecast by the Government. So far this year, collection has grown by 4.4% on 2020, mainly driven by the recovery of the Hydrocarbon Tax, which was the tax most affected by the pandemic. AIReF estimates that at the end of 2021 growth would stand at 6.3%, although over the last quarter of the year it will be affected by the reduction in the rate of the Special Tax on Electricity[22]

[22] RDL 17/2021, in force until 31/12/2021

which will subtract 1.3 points from its growth. For 2022, the expected growth of 7.5% would be 6.2% in the absence of the electricity measure, in line with the evolution of real GDP. The evolution of cash collection is reproduced in national accounting terms, with 4.9% obtained in 2021 and 7.6% in 2022, as for these taxes there are no differences between the two accounting headings.

FIGURE 45. EVOLUTION OF REVENUE FROM SPECIAL TAXES (% GDP)



Source: AIReF and 2022 GSB

4.1.5 Other tax revenue

According to AIReF's forecasts, other tax revenue will account for 0.8% of GDP in 2021 and 2022, in line with the provisions of the draft GSB. The evolution of other tax revenue will be influenced by numerous factors in the period under consideration, with an estimated rate of change of 14.6% in 2021 and 6.2% in 2022, compared with the 23.8% and 2.3% expected by the Government. After the 12.6% fall recorded in 2020, a recovery of 8.2% is expected in 2021. This growth is supported by the introduction of the new Taxes on Financial Transactions, Certain Digital Services and by the increase in rates for the Tax on Insurance Premiums that contribute an additional 10.9 points of growth. However, 4.5 points of this growth will be lost due to the suspension of the Tax on the Value of Electricity Production[23] in the second half of 2021. In 2022, there are also several opposing effects. Refunds of €150m in Non-Resident Income Tax are expected to occur under Judgment 1581/2019. These refunds will offset the impact of the entry into force of the Tax on Single-use Plastics, whose expected effect in 2022 is less than that assessed by the Government (see Section 4.4 on measures). The evolution of the other tax categories,

[23] RDL 12/2021 and RDL 17/2021

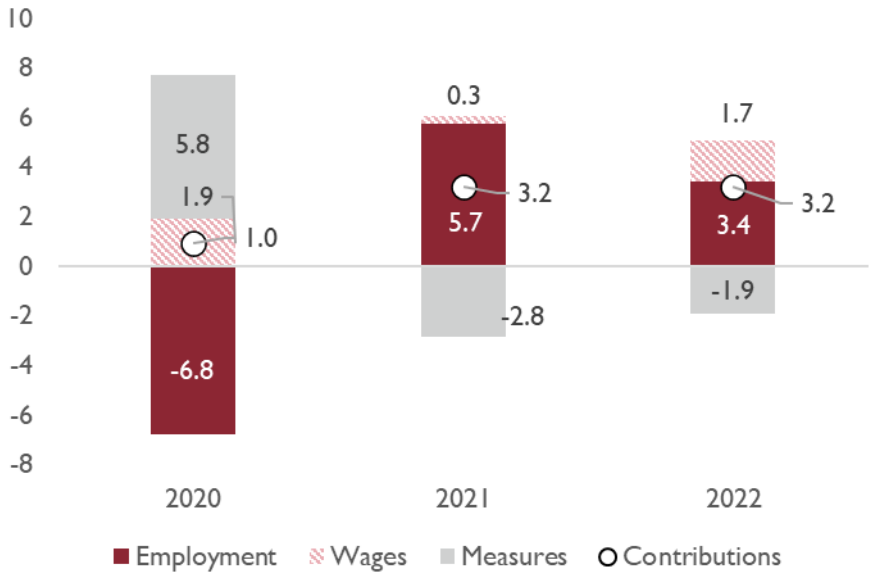
including the differential impact of the new taxes and regulatory measures, produces combined growth for 2022 of 6.2%, in line with the forecast for real GDP.

4.1.6 Social contributions

AIReF estimates that social contributions will amount to 13.9% of GDP in 2021 and 13.3% in 2022, while the Budgetary Plan forecasts 13.7% for 2021 and 13.2% for 2022. With regard to 2021, AIReF considers that the evolution of the published data, both of budget execution and of national accounting and Social Security affiliations, show greater dynamism than that considered by the Government. AIReF estimates growth for 2022 to be lower than that of the Government, consistent with its macroeconomic scenario. The weight over GDP is somewhat greater for AIReF due to the denominator effect.

While employment explains most of the growth in contributions - 5.7 points compared with the 0.3 points of wages - in 2021, in 2022 the contribution of these factors is expected to be more balanced, with 3.4 points and 1.7 points, respectively. Employment, which was key in the fall of 2020 once again takes on a major role in the recovery, both in 2021 and in 2022. However, the reduction in the cost of the measures due to exemptions compared with the previous year, in both 2021 and 2022, softens the pace of growth. Wages push the rate up, to a greater extent in 2022 than in 2021. The measures for both years include those approved prior to the crisis and in the 2021 and 2022 GSBs, as well as those aimed at mitigating the effects of the pandemic. The former include the increase in the contributions of non-professional carers, beneficiaries of the allowance for people over 52 years of age, the impact of the rise in the Minimum Living Income on total contributions and the increase in the contribution rate and minimum base of self-employed workers. Among the measures approved to tackle the crisis, which affect both years, the exemption from the payment of contributions for companies that make use of ERTEs (in different percentages according to the period, worker situations and company size) are calculated as an increase in subsidies that are aimed at increasing the contributions for the exempt amounts. With regard to the benefit for cessation of activity of self-employed workers to mitigate the effects of the crisis, the beneficiaries, for the most part, receive a gross benefit from which they have to pay the corresponding contribution.

FIGURE 46. BREAKDOWN OF GROWTH IN SOCIAL CONTRIBUTIONS



Source: AIReF, IGAE and Social Security

4.1.7 Other revenue

For other revenue, excluding NGEU funds, AIReF forecasts a weight of 4.3% and 3.8% of GDP in 2021 and 2022, respectively, 0.2 points more in 2021 than in the Budgetary Plan and the same in 2022. This revenue includes revenue from property income and current and capital transfers from abroad. Without taking into account the revenue from the NGEU Funds, AIReF's scenario and that presented by the Budgetary Plan align in 2022 although they show a different evolution, with AIReF's being more optimistic in 2021 and less optimistic in 2022. In AIReF's scenario, the weight of other revenue as a proportion of GDP would rise by 1.1 points and 2.4 points, in 2021 and 2022, respectively, if the NGEU Funds received in national accounting terms were taken into account.

4.2 Evolution of GG expenditure

Expenditure, excluding REACT-EU and the RTRP, will stand at 45.2% of GDP in 2022, according to AIReF's estimates, compared with 44.7% in the Budgetary Plan. The progressive withdrawal of the measures implemented in 2021 will be partially offset by the evolution of expenditure provided for in the draft budget and consolidation of part of the healthcare expenditure. This evolution has been conditioned by the inflation forecasts for 2022, which in the GSB have been translated into a 2% increase in the salary of public employees across the GG in 2022 and the revaluation of pensions according to the inflation

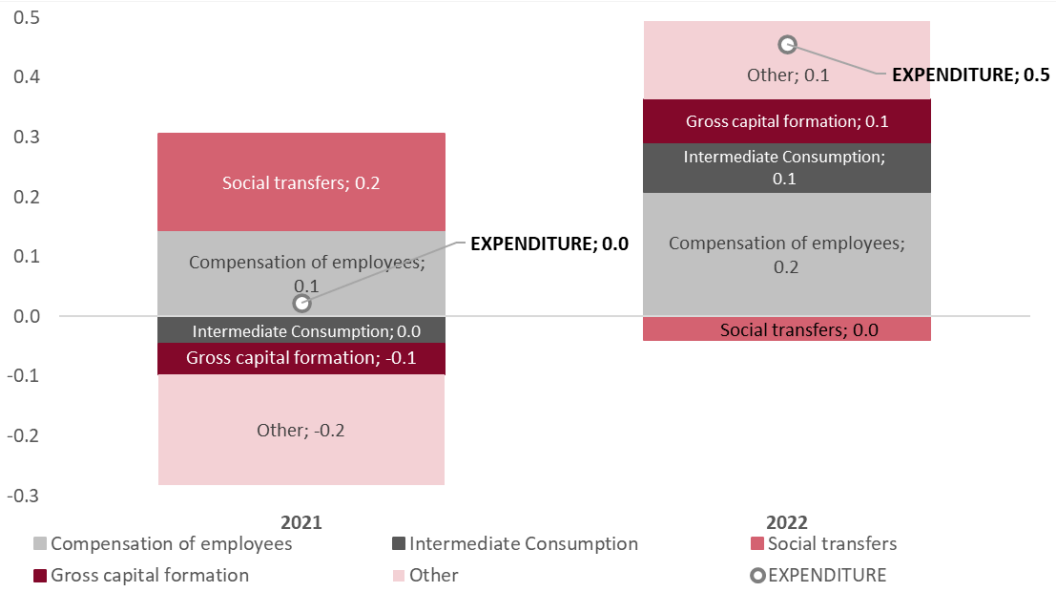
expected for 2021. In addition, the compensation for the difference between inflation and the approved pension revaluation of 0.9% in 2021 is also included. AIReF expects a higher level of expenditure in the components of public consumption and capital expenditure than that included in the Budgetary Plan, which is mainly offset by higher forecast savings in interest and unemployment benefits. The implementation of the RTRP and REACT-EU will place expenditure in 2022 at 47.5% of GDP.

TABLE 9. TEXPENDITURE AS % OF GDP BUDGETARY PLAN VS AIREF (WITHOUT NGEU FUNDS)

	2021			2022		
	DBP	AIReF	*Difference*	DBP	AIReF	*Difference*
EXPENDITURE	**49.6**	**49.7**	**0.0**	**44.7**	**45.2**	**0.5**
Compensation of employees	12.1	12.2	0.1	11.4	11.6	0.2
Intermediate Consumption	5.6	5.6	0.0	5.2	5.2	0.1
Social transfers	21.5	21.7	0.2	19.9	19.9	0.0
Interest	2.1	2.1	0.0	2.0	1.8	-0.2
Subsidies and other expenditure	5.7	5.5	-0.2	4.1	4.4	0.3
Gross capital formation	2.7	2.6	-0.1	2.2	2.3	0.1

Source: AIReF and 2022 Budgetary Plan

FIGURE 47. DIFFERENCE IN EXPENDITURE BETWEEN AIREF'S SCENARIOS AND THE BUDGETARY PLAN (% GDP)

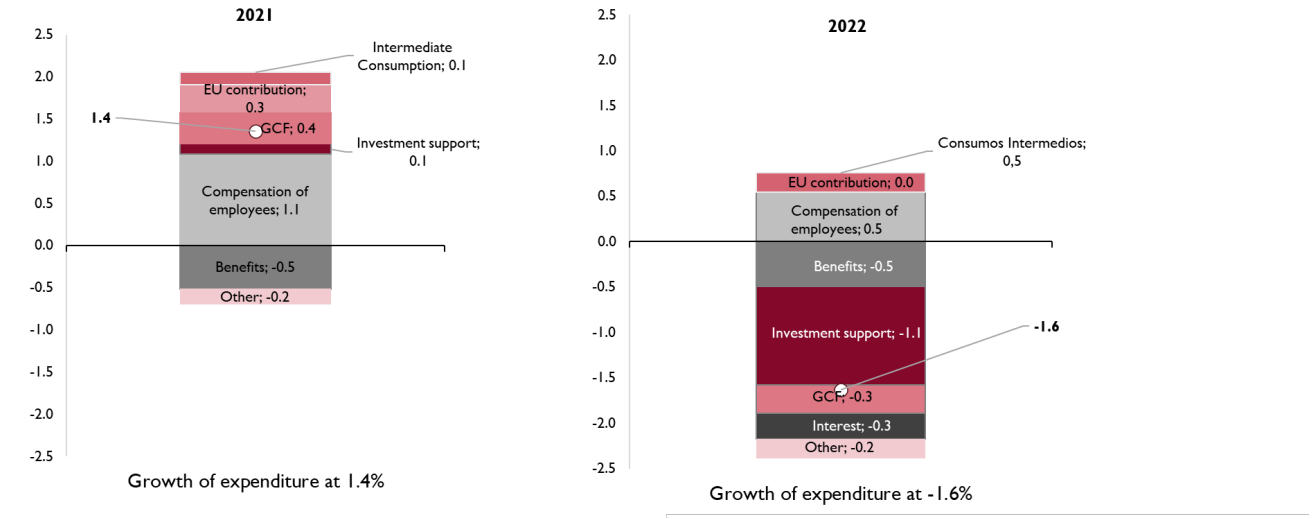


Source: Budgetary Plan 2022 and AIReF's Estimates

AIReF estimates a reduction in expenditure excluding RTRP and REACT-EU of 1.6% in 2022, less than the 2.1% forecast in the Budgetary Plan. Compared with the projected expenditure growth of 1.4% in 2021, AIReF estimates a 1.6% reduction for 2022 without RTRP and REACT-EU. This is mainly explained by the lower expenditure expected for 2022 on interest and pandemic-related spending on cash social benefits, such as unemployment benefits associated

with ERTEs and other extraordinary subsidies resulting from the State of Alarm, together with expenditure on temporary incapacity for work. Added to this is the fall in capital expenditure, which, without considering the RTRP and REACT-EU, is expected to drop by 15.1%. The Budgetary Plan foresees a further drop in spending in 2022. Like AIReF, it concentrates reductions in expenditure in grants and capital expenditure, but not interest, for which the Budgetary Plan includes a slight increase in 2022.

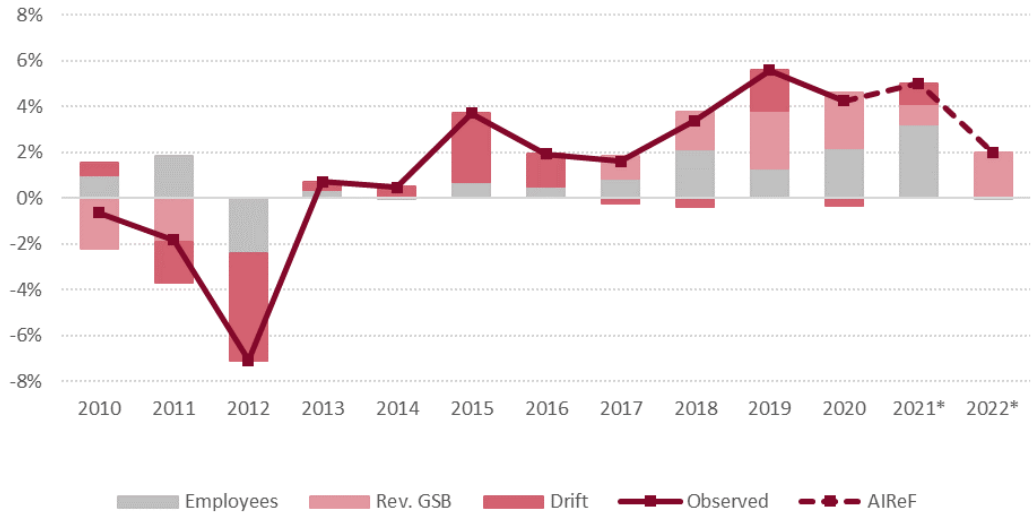
FIGURE 48. CONTRIBUTION TO THE GROWTH IN EXPENDITURE 2020-2021. GENERAL GOVERNMENT IN % GDP.



4.2.1 Main components of public consumption expenditure

With regard to compensation of employees, AIReF's expenditure forecasts are slightly higher than those of the Budgetary Plan, both for 2021 and for 2022. AIReF forecasts that this expenditure will stand at 12.2% of GDP in 2021 and 11.6% of GDP in 2022, 0.1 and 0.2 points higher, respectively, than in the Budgetary Plan. The nominal growth of this expenditure is 4.5% in 2021 and 2.2% in 2022. Following the sharp increase in 2021 to meet the needs of the pandemic with an increase in recruitment in health and education, a slowdown in this expenditure is expected due to reduced hirings as a result of the phasing out of COVID measures. This has a particularly strong impact in the area of the ARs. However, inflation works in the opposite direction as a public sector pay rise for the entire GG is set at 2% in 2022, compared with 0.9% applied in 2021.

FIGURE 49. EVOLUTION OF THE COMPENSATION OF EMPLOYEES (CHANGE) AIREF



* With NGEU funds

Source: INE, IGAE and AIReF estimates

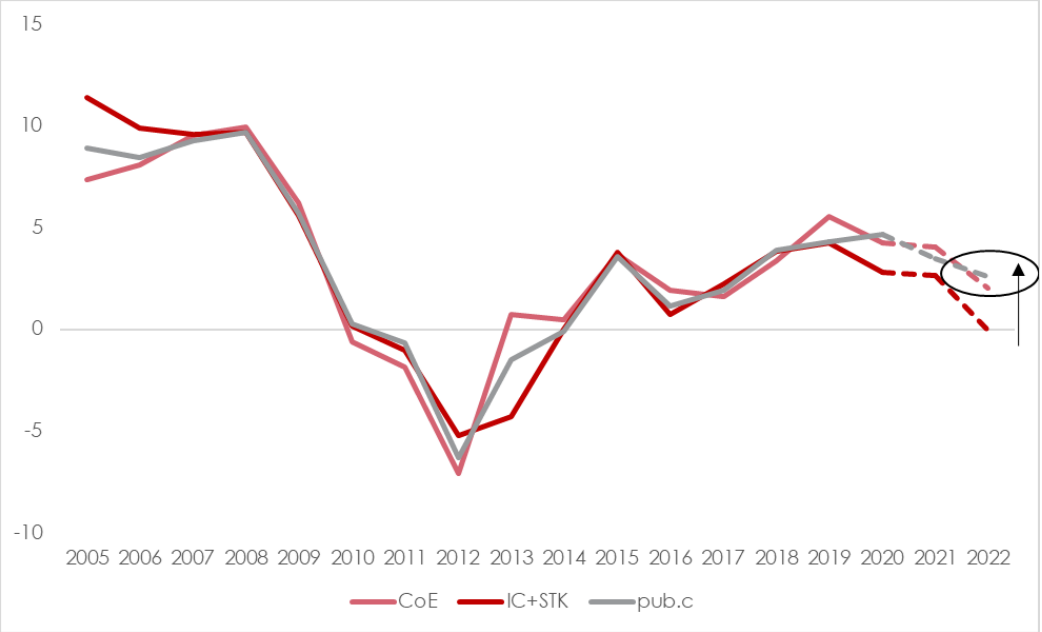
AIReF forecasts lower expenditure on intermediate consumption in 2021 and higher expenditure in 2022 than that included in the Budgetary Plan. In 2021, AIReF forecasts lower growth in intermediate consumption than the Budgetary Plan, but higher in 2022. It is forecast to stand at 5.2% of GDP in 2022, in line with the Government. AIReF's forecasts reflect a decrease in spending associated with measures taken to combat COVID, as is the case of purchases of medical supplies.

AIReF expects social transfers in kind to amount to 2.7% of GDP in 2022, 0.1 points above the Government's forecast. AIReF's forecast is that the benefit will grow by 2.5% in 2022, while the Budgetary Plan does not expect any change in this expenditure heading. The increases in this item are mainly forecast for the CG as a result of the transport allowances associated with the recovery of activity and mobility for the whole year and as a result of the young person's culture voucher approved by the Government. In the regions, this item is expected to grow more moderately due to the lower impact in 2022 of extraordinary expenditure on education and spending on pharmaceuticals and healthcare agreements.

The macroeconomic outlook presented by the Government in the Budgetary Plan and the 2022 GSB contains growth in public consumption in nominal terms of 3.5% in 2021 and 2.6% in 2022. The behaviour of this macroeconomic variable should be consistent with the evolution of the fiscal variables that comprise it, i.e.: the sum of compensation of employees, intermediate consumption, social transfers in kind and other taxes on production, in addition

to the consumption of fixed capital, less sales. An analysis of the fiscal variables included in the Budgetary Plan shows that the Government's rate of growth of public consumption is somewhat higher in 2022 than that of its three main components: compensation of employees, intermediate consumption and social transfers in kind. This would imply a reproduction of the pattern seen in 2020 with a rate of change in public consumption higher than that of the aforementioned fiscal variables. In 2020, there was a fall in the sales variable of 8.6%, which explains why the nominal growth of public consumption exceeds that of the three fiscal variables broken down in the Budgetary Plan. The Budgetary Plan reproduces the same behaviour as in 2020, which seems highly unlikely in the absence of mobility restrictions. Therefore, public consumption in 2022 would reflect a certain upward deviation with regard to the evolution of the fiscal variables that comprise it.

FIGURE 50. GROWTH RATES OF PUBLIC CONSUMPTION AND ITS COMPONENTS (% CHANGE).



Source: IGAE and 2022 Budgetary Plan

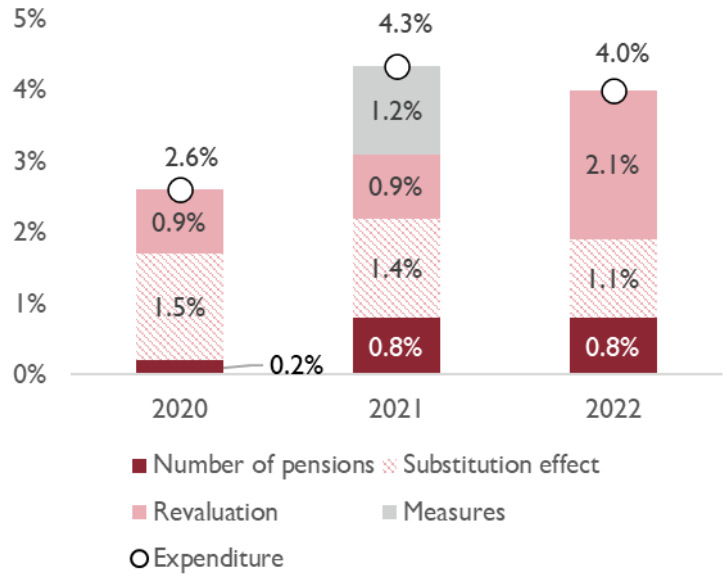
4.2.2 Social transfers in cash

AIReF forecasts that social transfers in cash will increase to stand at 18.8% of GDP in 2021, falling to 17.2% in 2022, compared with the 18.6% and 17.3%, respectively, forecast in the Budgetary Plan. This heading includes three types of measures: firstly, the impact of the measures taken in 2020 as a result of COVID-19 that will affect both 2021 and 2022; secondly, that of other expenditure measures approved since 2019 but which extend their effects to 2020 and even 2021; and finally, the measures included in the 2021 GSB and

the 2022 GSB. The first of these include unemployment benefits linked to the ERTEs, the benefit for cessation of activity and spending on temporary incapacity for work, which are the COVID-19 crisis measures that account for the highest expenditure. With regard to the 2019 measures, the effect of extended paternity leave, improved dependency care and unemployment benefit for people over 52 years of age is expected. With regard to the measures included in the 2021 GSB, the 5% increase in the IPREM (Public Multiple-Effect Income Indicator) and the 1.8% rise in the MLI and non-contributory pensions are included. Finally, the measures approved in the 2022 GSB that are included are the increase in the IPREM by 2.5% and the increase in the minimum non-contributory pensions and the Minimum Living Income (MLI) at 3%. This also includes an increase in expenditure in the MLI due to the recently announced modifications.

AIReF estimates a 4.3% increase in pension expenditure for 2021, and of 4% in 2022, 0.9 points lower than that estimated by the Government in the Budgetary Plan. AIReF estimates that for 2021, the number of pensions will increase by 0.8% instead of the 1% previously considered due to the effect of the pandemic in the early months of the year. The substitution effect remains at 1.4% and the revaluation at 0.9%. The additional increases in non-contributory pensions included in the 2021 GSB and the cost of the additional pension payment to increase pensions at the CPI rate for the year (2.1% according to AIReF) instead of the 0.9% by which they were initially raised (valued at 1.4 points of GDP by AIReF) are included as measures. The revaluation in 2022 will be based on the CPI of the previous year, as approved in the pension reform, so it would stand at 2.1% according to AIReF's forecasts. For 2022, AIReF initially estimates growth in the number of pensions (0.9%) and a substitution effect (1.1%) resulting from our expenditure projection model. However, AIReF considers that the pension reform will have some effect on retirement decisions, which will reduce the number of additions for the year, thus increasing the number of pensions at a slightly slower rate, reducing the rate from 0.9% to 0.8%. At any event, this effect is uncertain to the extent that it depends on changes in the behaviour of the agents involved, workers and companies. In this regard, agents may take a long time to react to the reform, so the effects might be spread over several years.

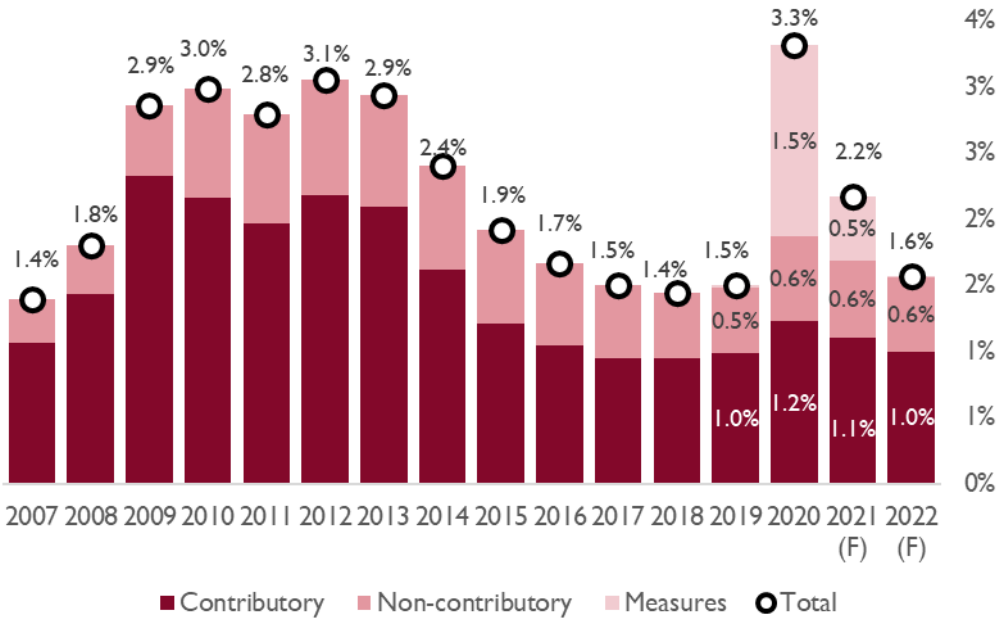
FIGURE 51. GROWTH IN PENSION EXPENDITURE. AIREF PROJECTIONS (% CHANGE)



Source: Social Security and AIReF.

Unemployment benefits fall from 3.3% of GDP in 2020 to a weight of 2.2% of GDP in 2021 and 1.6% in 2022, 0.3 and 0.2 points below the 2.5% and the 1.8% published in the Budgetary Plan. This heading includes the cost of ERTEs, the payment of unemployment benefit to temporary workers who were not entitled to it and the cost of the benefits for domestic workers. The decrease is mainly due to the reduction in the cost of ERTEs, which have gone from benefiting about 900,000 people at the start of 2021 to about 209,000 in the data published in mid-October by the ministerial department. AIReF estimates an ERTE cost for 2021 of about €5.6bn, and of about €300m for 2022. In addition, it also includes non-extraordinary measures approved prior to the crisis, such as the subsidy for people aged over 52 and the increase in the national minimum wage. Finally, the cost of the measures included in the GSB for both years has been included, specifically the increase in the IPREM by 5% in 2021 and 2.5% in 2022. For the contributory benefit, the level of beneficiaries is considered to be around the average of 2018-2019, with an average benefit that increases in line with historical data. For the non-contributory benefit, the number of beneficiaries is considered to be 2.5% higher than in 2019 with an average benefit that increases at the rate of the IPREM - 5% in 2021 and 2.5% in 2022.

FIGURE 52. EVOLUTION OF UNEMPLOYMENT EXPENDITURE % OF GDP. AIREF'S PROJECTIONS (% CHANGE)



Source: SEPE and AIReF

The other items under the heading are also affected by the extraordinary measures, with their weight over GDP in 2021 falling by 0.1 points compared with 2020 and dropping by a further 0.6 points in 2022, to stand at 3.6%. The reduction is mainly due to the near disappearance in 2022 of the expenditure on certain measures associated with the health crisis. In particular, the benefit for cessation of activity and the expense for Temporary Incapacity for Work, which includes the cost of sick leave due to infection and quarantine resulting from the COVID-19 virus, which are expected to disappear in February 2022. In addition, this heading includes the Minimum Living Income (MLI), which AIReF estimates will increase its annual cost in 2022 from €2.3bn estimated for 2021 to €3bn budgeted as a result of the recently announced modifications not included in the Budgetary Plan. It also includes its revaluation included in the 2021 GSB of 1.8% for 2021 and that included in the 2022 GSB of 3% for 2022.

4.2.3 Other expenditure

Subsidies

Subsidies continue to reduce their weight from 1.9% of GDP in 2020 to 1.5% in 2021 and 1.1% in 2022, a level similar to that estimated by the Government. The tax exemption measures due to the health crisis have been reduced and they are expected to practically disappear in 2022. This heading will therefore move back to pre-crisis levels, although a little higher than those before the pandemic. In addition, a decrease in CG expenditure on subsidies is expected

in 2022 following the removal of the measures adopted by the Government to reduce the electricity bill in 2021, which have led to higher spending on the subsidy to the CNMC (National Markets and Competition Commission) in order to meet the tariff deficit.

Interest

AIReF forecasts a larger reduction in interest expenditure for 2022 than that set out in the Budgetary Plan. While for 2021, the estimates of AIReF and the Budgetary Plan are aligned at 2.1% of GDP, for 2022 AIReF forecasts lower expenditure, with this heading standing at 1.8% of GDP compared with 2% for the Government. Despite the increase in debt linked to the deterioration of the deficit due to the pandemic, a decrease in interest expenditure is expected as a result of the new issuance rates that are at record lows. This benefits not only new issues but also the refinancing of debt at more advantageous terms, thus reducing the interest burden. However, it is worth noting the risk stemming from the high volume of existing public debt in relation to possible interest rate hikes and an increase in inflation in the short and medium term.

Gross capital formation

AIReF forecasts that gross capital formation without RTRP and REACT-EU funds will fall from 2.6% of GDP in 2021 to 2.3% of GDP in 2022, 0.1 points higher than the Budgetary Plan. Without taking into account the investment projects and reforms that are expected to be financed from the RTRP and REACT-EU, the reduction in investment occurs at all tiers of government - in the CG, given that the increase in investment in 2021 due to the reversal of the ACESA concession[24] for €2bn will not be repeated in 2022. In addition, full execution of the increase in the investment included in the 2022 GSB is not expected to be completed due to the difficulty of absorbing such a high volume of investment at the same time as the projects financed with the NGEU funds. For their part, the ARs are expected to make lower investments associated with the pandemic. Additionally, in the area of the LGs, a lower investment is estimated than in 2021 due to the application of savings from previous years following the suspension of fiscal rules. With the RTRP and REACT-EU, investment would increase by 10% in 2022 and stand at 3.1% of GDP.

Other expenditure

Regarding the other expenditure items, there are noteworthy differences between the Government and AIReF in estimating contributions to the EU

[24] The flows accounted for in national accounting terms by the reversal of the ACESA concession are as follows: there is a revenue item and an expenditure item for the same amount - €2bn - as capital income and expenditure on gross fixed capital formation, which is neutral in deficit. In addition, an expense is recorded under other capital transfers for an amount of €1.29bn, generating a higher deficit.

budget and capital transfers. The expenditure on contributions to the EU budget estimated by AIReF for 2022 is in line with the national contributions provided for in the EU budget, resulting from 1% of GDP, which is 0.1 points of GDP lower than the figure included in the Budgetary Plan. In addition, the expenditure on support for investment and other capital transfers is lower in 2021 than the Government's. However, in 2022, it stands at 1.3% of GDP, 0.1 points higher than the figure included in the Budgetary Plan, which might be due to the different estimate and timing allocation of non-recurring operations.

4.3 Analysis of the 2022 GSB

4.3.1 Central Government

AIReF revises its deficit forecast for 2021, which worsens from 6.1% to 6.3% of GDP compared with the July report, bringing it in line with the Government's forecast. The revenue and expenses associated with the RTRP have been revised downwards, with a lower execution of special-purpose expenditure at the end of the month of July based on the latest execution data. Apart from this adjustment, which is deficit neutral as it equally affects revenue and expenditure, the worsening of the deficit by 0.2% of GDP is the result of an increase in expenditure of 0.3% of GDP, partially offset by an increase in revenue of 0.1% of GDP. The higher expenditure is due to an upward reassessment of intermediate consumption, transfers between the GG subsectors and other capital transfers, each with an increase of 0.1 points of GDP, based on the latest available information. The best revenue forecasts are determined by the latest known data, which improve the forecasts for VAT, Special Taxes and Corporate Income Tax.

The deficit is expected to fall by 2.4 percentage points of GDP to 3.9% in 2022, in line with the Government's forecast. This reduction is mainly due to the expected improvement in revenue as a result of the economic recovery and regulatory measures. This will lead to revenue growth of 1.3% of GDP, which, without the effect of the RTRP, would have been 0.1%. Expenditure is expected to fall by 1% of GDP, which would be 2.2% without the RTRP. The main factors that explain this decrease, without the RTRP, include the lower interest expenditure and the reduction both in COVID measures and the contribution to SEPE to finance unemployment spending.

Evolution of revenue and expenditure

AIReF forecasts that the CG revenue[25] will amount to 20.6% of GDP in 2022, after ending 2021 at 19.3% of GDP. One point of this increase in the weight of revenue in 2021 is due to the growth in tax revenue, which is more dynamic than the growth in economic activity, while a further point is due to the NGEU Funds. In 2022, the weight of revenue is expected to grow by 1.4 points. This is due to the greater contribution of the NGEU Funds as AIReF estimates greater execution of these funds, partly offset by 0.3 points, due to a lower weight of GDP for taxes and contributions as they will grow less intensely than GDP in 2022.

Regarding the other non-tax revenue of the CG, without NGEU Funds, and without including the effect of transfers between the General Government subsectors, AIReF forecasts a fall of 6.3% in 2022 due to the non-recurring capital income attributed to ACESA in 2021. This type of income brings together a variety of different types of revenue. These include sales, which account for around 20% of this revenue, which are expected to grow by 15% in 2021 according to the progress of execution up to July, as well as growth in line with inflation for 2022. It also includes property income, which accounts for a little over 20%, and interest and dividend income, which are expected to fall in nominal terms in both years. This section also contains the income from social contributions, accounting for 30% of this type of revenue, which is expected to be in line with the last observed year – 2020 - without including in the CG the income contained in the State budget due to the occupational training fee as it is understood that this will continue to be calculated in the Social Security Funds as shown by the flash estimate of the 2021 settlement in national accounting terms included in the draft GSB. Of the other categories, the heading of other capital revenue is the most significant as it records the revenue resulting from the reversal of ACESA in 2021 in an amount of €2bn.

TABLE 10.REVENUE IN % GDP CENTRAL GOVERNMENT (AIREF) (WITH NGEU FUNDS)

	2021	2022
REVENUE	**19.3**	**20.6**
TAXES	**14.6**	**14.4**
On production	8.2	8.2
On income	6.3	6.2
On capital	0.0	0.0
CONTRIBUTIONS:	**0.8**	**0.8**
Transfers between GG	**1.1**	**1.9**
Other revenue	**2.8**	**3.6**

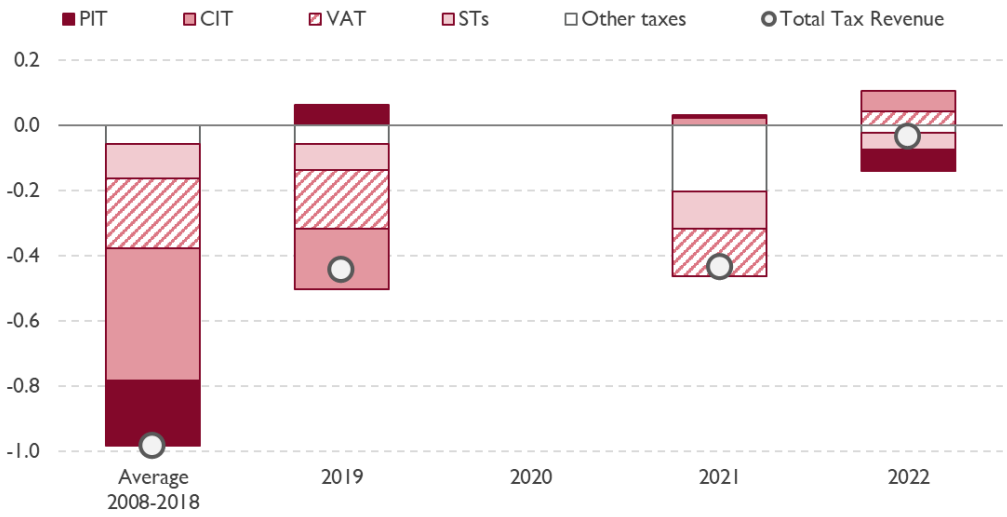
Source: AIReF

[25] The tax revenue forecast in the draft 2022 GSB has been evaluated in the section on the General Government as a whole, as it contains the forecast revenue of the ordinary regime, which accounts for over 75% of the total tax revenue.

Deviations in the budgetary estimate

According to AIReF's forecasts, tax revenue in 2022 will record an amount close to that included in the 2022 GSB, with a slight deviation of under 0.1 points below the budgeted figure. This would be less than the estimated deviation for the end of 2021, which would be around 0.6 points of GDP lower and also lower than the average for the period between 2008 and 2018, which stood at very close to 1%. The following figure shows the deviation or budgeting error, which is calculated by comparing the revenue forecasts of the budget of each year with the actual collection after deducting the positive or negative impact on collection of any regulatory measures approved subsequent to approval of the respective budgets. As can be seen, the deviations have generally been negative, i.e. the revenue actually collected has been less than that budgeted for each year. However, these deviations have been narrowing, from an average of close to 1 point of GDP in the period between 2008 and 2018, to 0.6 points projected for 2021 and less than 0.1 points estimated for 2022. For 2022, and if the tax deviation is disaggregated, it is estimated that the positive deviations expected in VAT and Corporate Income Tax - around 0.05 points of GDP for each - are offset by the negative ones of a similar amount in PIT and Special Taxes.

FIGURE 53. DEVIATION OF REVENUE WITH REGARD TO APPROVED BUDGET (*)



(*) Deviation = Revenue collected without the impact of measures approved subsequent to the GSB - Budgeted
Positive: Revenue collected > Budgeted
Negative: Revenue collected < Budgeted

Source: AIReF, 2021 GSB and 2022 GSB

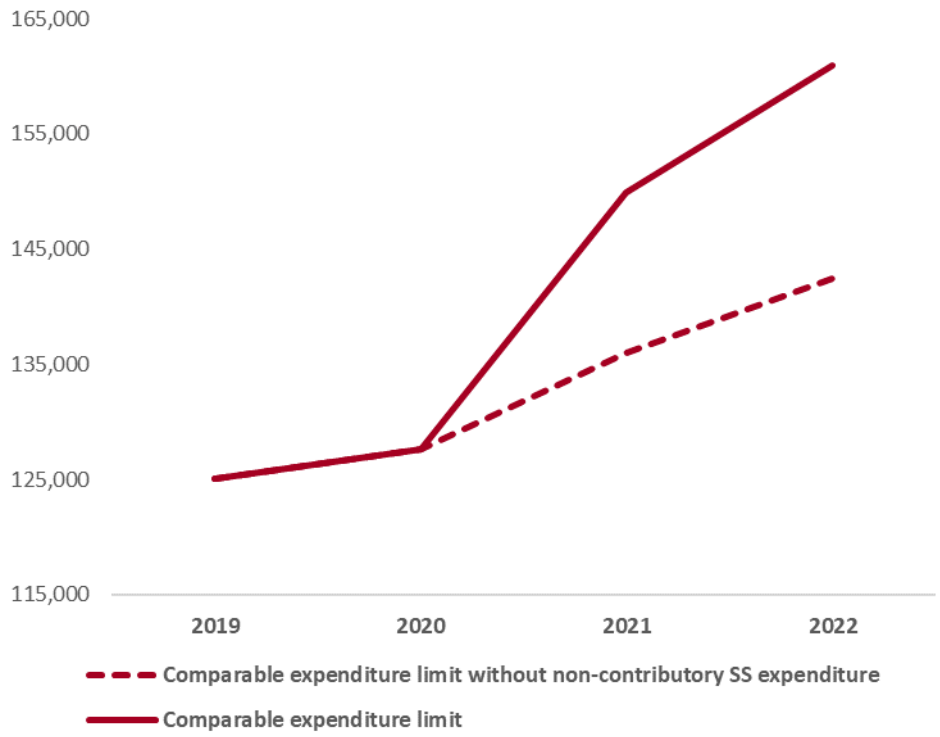
Non-financial expenditure limit

The non-financial expenditure limit for 2022, also called the expenditure ceiling, was set by the Government at 196,142 million, 0.9% higher than in 2021.

In 2021, the Government initially set the 2021 expenditure ceiling at 196,097 million. Regarding this amount, the 2022 ceiling represents only an increase of 45 million, or 0%. However, the expenditure ceiling that was finally incorporated into the draft 2021 GSB, after defining the tax measures eventually approved and the final impact of the "Next Generation EU" (NGEU) Funds, was 194,457 million. Therefore, the expenditure ceiling approved for 2022 is 1,685 million higher than the final 2021 ceiling, an increase of 0.9%.

However, in homogeneous terms, the increase in the 2022 ceiling is 7% compared with 2021. For comparative purposes, if an expenditure ceiling is calculated in homogeneous terms with that of the previous years, i.e., eliminating extraordinary transfers for the other sub-sectors to deal with the crisis and the exceptional spending corresponding to the NGEU European funds, the increase in the 2022 expenditure ceiling stand at 7% compared with 2021 and up to 29% higher than the figure for 2019.

FIGURE 54. EVOLUTION OF THE EXPENDITURE CEILING IN HOMOGENEOUS TERMS, WITH AND WITHOUT FINANCING OF NON-CONTRIBUTORY SOCIAL SECURITY EXPENDITURE (TOLEDO PACT)



Part of this increase is due to State financing of so-called "improper" expenditure of the Social Security system. Of the 7% increase in the comparable expenditure ceiling, there is a change of over 2% that is explained by the increase in the financing of non-contributory spending of the Social Security system in 2022, in the context of the gradual assumption by the State of the financing of this expenditure considered as "improper" by the

Social Security system. In 2021, the process of transferring the financing of this expenditure from the Social Security system to the State began in compliance with the first recommendation of the Toledo Pact, with an amount of €13.93bn, which will culminate in 2024 with an amount of €22.57bn, a figure that will be consolidated from that year.

The financing of this structural expenditure results in a significant increase in the State's expenditure ceiling. For this reason alone, the spending ceiling will increase by €22.57bn in four years. This is an expense of a structural nature. Therefore, for the State to assume this spending it needs to be accompanied by an increase in revenue which is not cyclical but permanent in order to finance the expenditure.

The rest of the increase to 7% does not include the short-term expenditure associated with unemployment or the transfers to the territorial governments due to COVID. The comparable expenditure ceiling, after excluding the contribution of the State to the Social Security system to finance the aforementioned "improper" expenditure, grows at a rate of close to 5% in 2022. This increase takes place independently from the temporary expenditure related to the pandemic, such as expenditure on unemployment (for the part that is financed by the State as a transfer to SEPE), as well as the extraordinary allocations to the territorial administrations to deal with the crisis generated by COVID.

Since 2016, in the draft 2017 GSB, the Government has not published details on the national accounting adjustments necessary to reproduce the calculation of the expenditure limit. To calculate the non-financial expenditure limit, it is necessary to estimate the national accounting adjustments, which allows the equivalence between the budgetary balance and the balance expressed in the national accounts to be shown (see 0). The estimate of these adjustments must be published in the GSB (Articles 6 and 27 of the Organic Law on Budgetary Stability and Financial Stability). Despite this legal obligation and AIReF's repeated recommendations in the same regard, the Ministry of Finance has not published the details of these adjustments since the 2017 GSB.

This prevents adjustments from being properly monitored when they are a factor of possible deviation from the deficit target. Accounting adjustments are important insofar as they are a factor of possible deviation from the deficit target (see 0). Execution of the GSB may lead to a deviation from the target deficit not only as a result of lower and/or higher than initially budgeted non-financial revenue and/or expenditure, but also as a result of national accounting adjustments other than those initially expected.

AIReF has analysed the 2022 expenditure ceiling from the perspective of how revenue forecasts and national accounting adjustments affect compliance with the reference deficit of 3.9% of GDP. To carry out this exercise, AIReF has compared its own forecasts with those of the Government, leaving the rest of

the variables constant. Firstly, it has compared its own revenue forecast with the Government's forecast contained in the draft 2022 GSB. Secondly, it has made its own estimate of the national accounting adjustments with the available information and compared them with the Government's national accounting adjustments. Although these adjustments are not published in the draft 2022 budget, the total amount can be deduced from the difference between the approved expenditure ceiling and the other items used in its calculation since all the figures are known except the adjustments. Its GDP estimate for 2022 has been used to calculate AIReF's forecasts.

Both the revenue forecasts and the national accounting adjustments estimated by AIReF would be slightly below those of the draft GSB. The Ministry of Finance estimates non-financial revenue of 13.9 % of GDP for 2022, while AIReF's forecast is at 14.1% of GDP. The two figures include NGEU funds for 2022 (Assumption 1 of 0). Apart from these funds, the forecast of non-financial revenue is slightly lower, but the bulk of the difference comes from the denominator effect as AIReF estimates lower GDP than the Government. The national accounting adjustments estimated by AIReF amount to 0.6% of GDP, a figure slightly lower than the amount of the adjustments of the approved expenditure ceiling, but on dividing it by a lower estimated GDP, the percentage of GDP matches that of the Government (Assumption 2 of 0). In both cases, the expenditure ceiling set by the Government would lead to a deficit of 4% of GDP, 0.1 points higher than the reference deficit due to the effect of GDP. In conclusion, according to the analysis carried out, if AIReF's forecast in terms of revenue and national accounting adjustments is met and, keeping the other variables constant, the 2022 expenditure ceiling approved by the Government would lead to a deficit of 4% of GDP (Assumption 3 of 0).

NON-FINANCIAL EXPENDITURE LIMIT CALCULATED BY THE MINISTRY OF FINANCE AND EXERCISE FOR APPROXIMATING THE CALCULATION OF THE NON-FINANCIAL EXPENDITURE LIMIT (% GDP)

(in % GDP)

		Assumption 1	Assumption 2	Assumption 3
	Ministry of Finance data	Ministry of Finance data, except AIReF revenue forecast	Ministry of Finance data except AIReF NA adjustments	AIReF deficit forecast with Ministry Non-Fin. Expenditure Limit
1. 2022 deficit	3.9	4.0	4.0	4.0
2. Revenue forecast	13.9	14.1	14.1	14.1
3. NA adjustments	0.6	0.6	0.6	0.6
4. Expenditure FS TAs	3.3	3.3	3.3	3.3
5. Special defence programmes	0.2	0.2	0.2	0.2
6. NF Ex. Lim. (6)=(1)+(2)+(3)-(4)-(5)	14.9	15.1	15.1	15.1

Nota 1: The GDP used in assumptions 1, 2 and 3 is that estimated by AIReF.

Source: Draft 2022 GSB and AIReF forecasts

NON-FINANCIAL EXPENDITURE LIMIT OR EXPENDITURE CEILING

What is it?

This is the maximum non-financial expenditure that can be included in the GSB so that, taking into account the forecast non-financial revenue, the deficit target and expenditure rule set for the financial year are met.

What is it for?

It is a budgetary management tool which seeks to ensure that the GSBs to be approved are consistent with the targets set. By setting a maximum for non-financial expenditure that can be considered when drafting the GSB, it is a very useful tool for curbing the pressures to raise expenditure that may emerge both from internal negotiation (expenditure requests by ministerial departments) and external negotiation (from political parties in the process of parliamentary approval of the GSB).

Who approves it?

It is approved by the Government by means of a resolution of the Council of Ministers, without the need for subsequent approval by Parliament. For 2022, it was set by a resolution of the Council of Ministers of July 27th 2021.

How does it differ from the expenditure rule?

Although both are expenditure limitations, they are different instruments each with its own purpose:

Purpose: The expenditure ceiling is used to set a maximum expenditure in budgetary terms that allows a budget to be approved that is consistent with meeting a given deficit expressed in national accounting terms. The expenditure rule limits the maximum annual increase in expenditure in national accounting terms compared with the previous year, with the aim of serving as an instrument for fiscal control and discipline.

Calculation: The expenditure ceiling covers budgetary non-financial expenditure less expenditure from the regional and local financing system. Unlike the above limit, the expenditure rule also excludes interest, expenditure funded by the EU and other public authorities. It also takes into account the adjustments for converting the budgetary expenditure into national accounting terms.

How is it calculated?

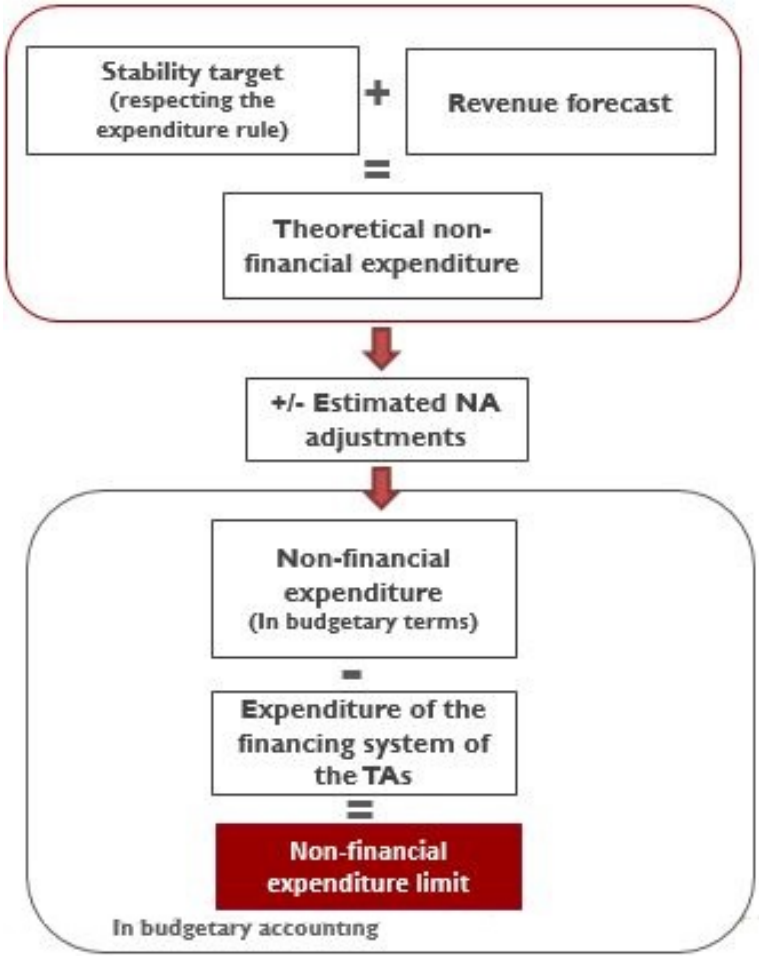
Its calculation can be summed up in three steps (see graph):

Firstly, theoretical non-financial expenditure is obtained by summing the deficit allowed by the target plus the expected revenue. While the deficit target or, in this case, the deficit reference rate is expressed in national accounting terms, the revenue forecast is in budgetary terms.

Secondly, the theoretical expenditure obtained is converted into budgetary expenditure by applying the expected adjustments in the period for the different criteria used to calculate certain operations in the budget and in the national accounts.

Thirdly, expenditure in budgetary terms is reduced by the State expenditure under the regional and local financing systems.

CALCULATION OF THE EXPENDITURE CEILING OR NON-FINANCIAL EXPENDITURE LIMIT



NATIONAL ACCOUNTING ADJUSTMENTS

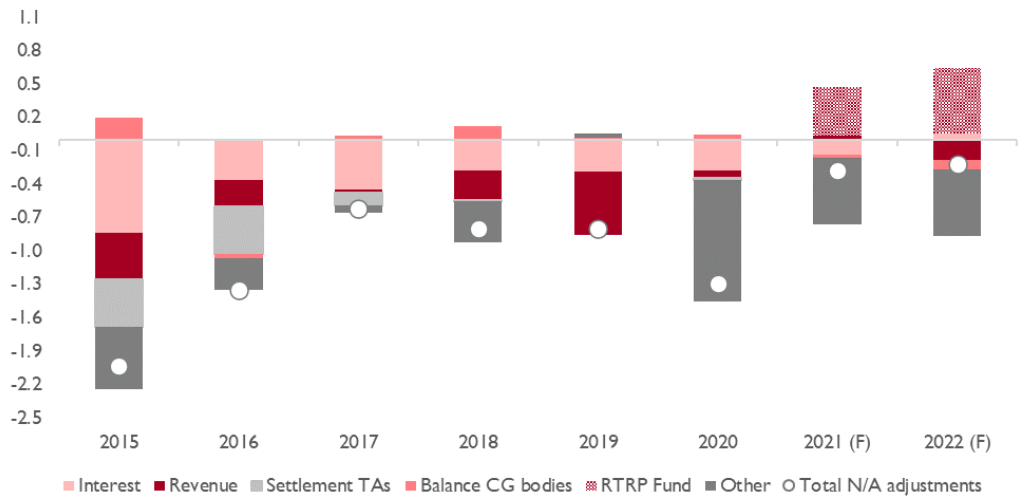
What are they?

These are the differences in the valuation of non-financial revenue and expenditure between budgetary accounting and national accounting. Therefore, their calculation makes it possible to convert the State's budgetary balance into the CG's net lending/borrowing in national accounting terms.

National accounting criteria differ from budgetary methodology in various aspects. The main difference is in the criterion for recording expenditure and revenue such that while in national accounting terms a general accrual criterion is applied, the cash criterion applies in the budget. Furthermore, there are financial operations in the budget that are considered non-financial in national accounting terms and *vice versa*. Therefore, in the budget these operations do not have an impact on the public deficit, but they do have an impact for national accounting purposes and *vice versa*.

In recent years, the main national accounting adjustments were made in relation to interest, revenue, negative settlements of the territorial administrations resulting from the financing system[26] and the balances of Central Government bodies.

MAIN NATIONAL ACCOUNTING ADJUSTMENTS, PERIOD 2015-2022. (% GDP)



Source: EDP notification for 2015-2020 and AIReF forecasts for 2021 and 2022

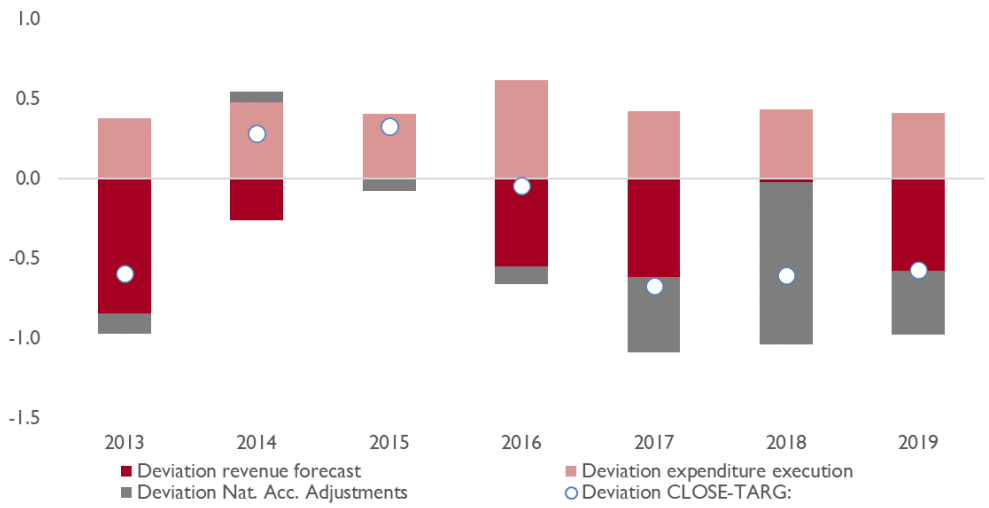
[26] This adjustment has been of major quantitative importance in previous years due to the negative settlements for 2008 and 2009, resulting from the Great Recession.

Why are they important?

Accounting adjustments are important insofar as they are a factor of possible deviation from the deficit target. The execution of the GSB may lead to a deviation in revenue and/or non-financial expenditure from those initially budgeted, which will result in a deviation from the target deficit. However, this deviation may also come from national accounting adjustments other than those initially expected.

Since the 2017 GSB, the accounting adjustments that might allow reconciliation of the budgetary balance with the deficit in national accounting terms are not published. From that point on, national accounting adjustments went from having little impact on the deviation from the deficit target to having a significant impact.

BREAKDOWN OF THE DEVIATION FROM THE DEFICIT TARGET. PERIOD 2013-2019. (% GDP)



NB: 2020 is not included, given the distortion in the data due to the exceptional nature of the pandemic.

In order to prevent deviations in the achievement of the deficit target through national accounting adjustments, it is essential for them to be published in the GSB so as to provide transparency to these adjustments and allow appropriate oversight of their implementation.

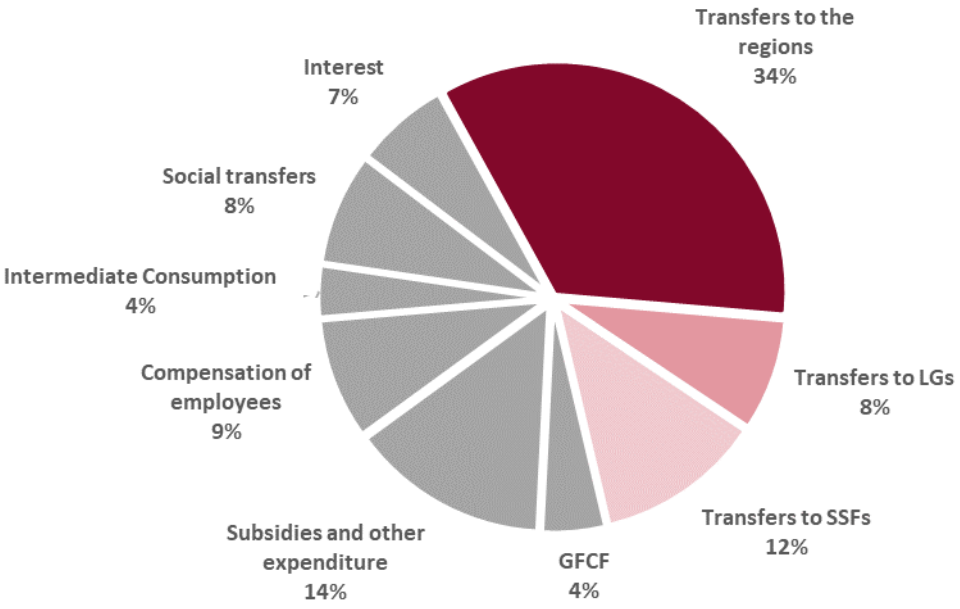
Central Government expenditure

AIReF forecasts a decrease in the weight of expenditure over GDP of 1 point to 24.5% in 2022. Expenditure is expected to grow by 3.8% compared with 2021, below GDP. The main factor of the increase comes from the higher expected implementation of the RTRP in 2022 for about €22.5bn (1.7% of GDP). Excluding this expenditure, there would be a decrease of around 1.6%, mainly

as a result of the withdrawal of COVID measures, which include lower extraordinary transfers to the territorial administrations, the lower contribution to SEPE for unemployment, as well as the reduction in interest expenditure.

Transfers to other GG sub-sectors remain the largest component of CG expenditure in 2022 (54% of the total). Transfers rise by 2.5% compared with 2021 and continue to be the largest item of expenditure of the CG for 2022. A relevant factor for explaining the importance of this item is the channelling by the CG of a major part of the RTRP funds to other sub-sectors via transfers. The State is also gradually increasing the financing of Social Security expenditure deemed to be "improper" as a consequence of the commitment assumed under the Toledo Pact. In contrast, the financing role assumed by the State during the pandemic loses strength since, with the improvement of the health and economic situation, COVID measures are withdrawn and the transfer to SEPE for unemployment is reduced. However, for 2022, there are additional new transfers to the territorial administrations to offset the negative settlements of 2020 and the VAT management system.

FIGURE 55. DISTRIBUTION OF NON-FINANCIAL EXPENDITURE OF THE CG 2022

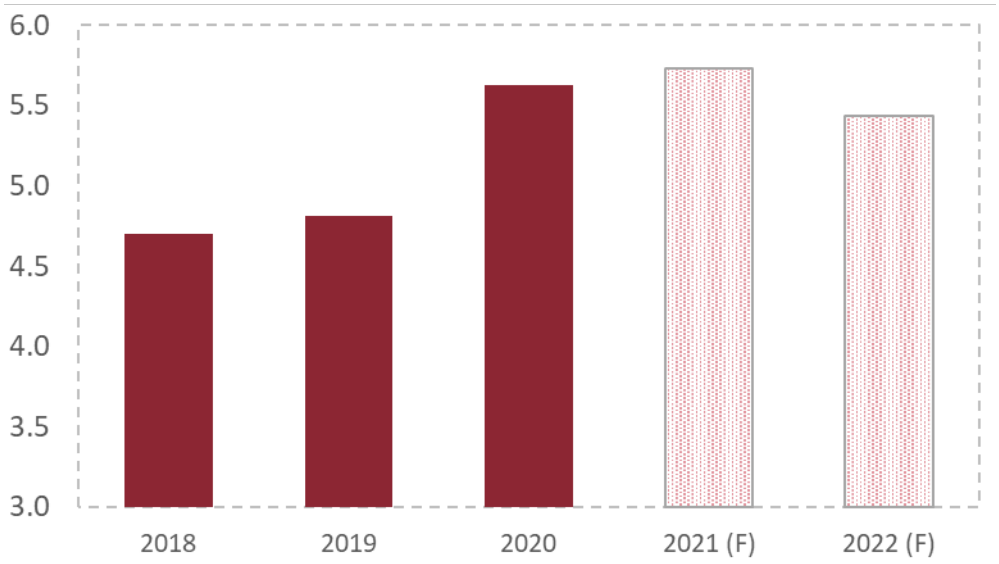


Source: AIReF

The discretionary expenditure of the CG falls in weight of GDP in 2022 after the increases of the two previous years. Prior to the pandemic, there were significant reductions in discretionary spending, mainly due to the significant percentage of spending that the CG allocates to making transfers to other GG sub-sectors. Beginning in 2020, with the outbreak of the pandemic, the discretionary spending of the CG increases. This expenditure rises despite the

fact that a significant part of the spending measures against the pandemic are channelled through transfers to other sub-sectors.

FIGURE 56. EVOLUTION OF CG EXPENDITURE WITHOUT TRANSFERS TO GG-SUBSECTORS, INTEREST, CIVIL SERVANT PENSIONS AND EU CONTRIBUTION (% GDP)



NB: Does not include major non-recurring operations or NGEU funds

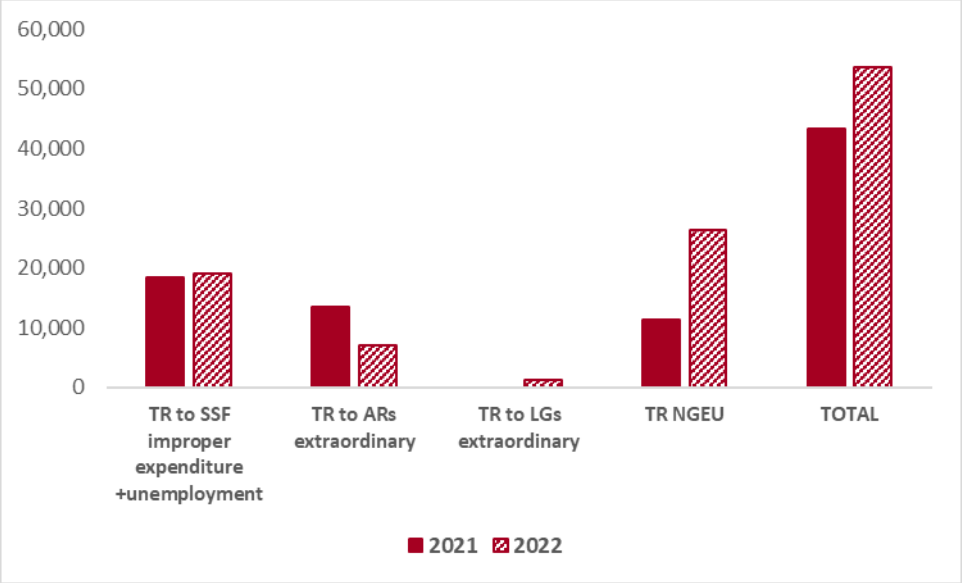
Source: IGAE and AIReF

According to AIReF's estimates, compensation of employees will grow by 2.5% of GDP compared with 2021. This growth is due to the wage increase in line with the expected CPI (2%) compared with 0.9% in 2021, a moderate increase in the workforce (0.4%) and, lastly, a wage drift due to factors unrelated to the previous two. There are hardly any increases in this item associated with the RTRP as it has been planned to essentially make use of the existing administrative structures to manage these NGEU funds.

AIReF estimates a decrease of 0.1 points in intermediate consumption in 2022 to 0.9% of GDP, and an increase of 0.1 points in social transfers in kind to 0.2% of GDP. With regard to intermediate consumption, it is expected that expenditure on COVID-19 vaccines will continue to be made for €1.1bn, of which €733m will be financed by REACT-EU, but for a lower amount than this year. In contrast, expenditure on transfers in kind is expected to grow due to the increase in discounts on transport prices thanks to the forecast of an absence of mobility restrictions over the full year and the expenditure due to the young person's culture voucher for an amount of €210m approved by the Government as a new measure in the draft 2022 GSB.

The draft GSB forecasts an increase in transfers between GG sub-sectors (1.6%), which, as it is below the rate of growth of GDP, will reduce its proportional weight of GDP by 0.7 points, to stand at 13.3%. A significant increase in transfers of RTRP funds to other sub-sectors is expected due to the higher-than-expected execution of the allocated expenditure of the RTRP in 2022, as it includes the part that is expected to remain pending execution in 2021 (above 60%) and a part of the expenditure assigned to 2022 (around 40%). However, without taking into account the RTRP expenditure, transfers would have fallen by 3.3% compared with 2021. This is mainly explained by lower transfers to other sub-sectors to address the pandemic (COVID measures) and to finance unemployment, offset only in part by the increase in financing of expenditure considered "improper" by the Social Security and the new additional transfers to the territorial administrations relating to the negative settlements of 2022 and the VAT management system. As a new aspect, the transfers granted to the ARs include the expenditure for the young person's culture voucher that the draft GSB quantifies at €200m and the increase in transfers to finance care for people in situations of dependency.

FIGURE 57. 2021-2022 EVOLUTION OF EXTRAORDINARY TRANSFERS BETWEEN GG SUB-SECTORS WITH NGEU. NATIONAL ACCOUNTS (€ MILLION)



Source: AIReF

AIReF expects gross capital formation to fall by 1.8% to 1.1% of GDP in 2022, which would fall to 0.8% of GDP without the RTRP. Gross Capital Formation is expected to decrease by 0.1 points of GDP compared with 2021. This reduction takes place despite the increase driven by the RTRP investment projects, whose expenditure is estimated to be higher than in 2021, since the RTRP investment planned for 2022 accumulates the part of the 2021 investments that has been shifted to 2022 as a result of the delay in their

execution. Without the RTRP, gross capital formation would fall by 8.1% on 2021. On the one hand, the draft 2022 GSB includes, under initial appropriations, a sharp increase in national investment, which AIReF has incorporated into its scenario with a level of execution lower than the historical average due to the difficulty in absorbing these investments plus those of the RTRP in the same year. On the other hand, the expenditure of €2bn for the reversal of the ACESA concession in 2021 will not be repeated in 2022. Finally, this heading includes SAREB investments for an amount similar to 2021. This expenditure, however, will be considered financial support, as indicated in the 2022 Budgetary Plan.

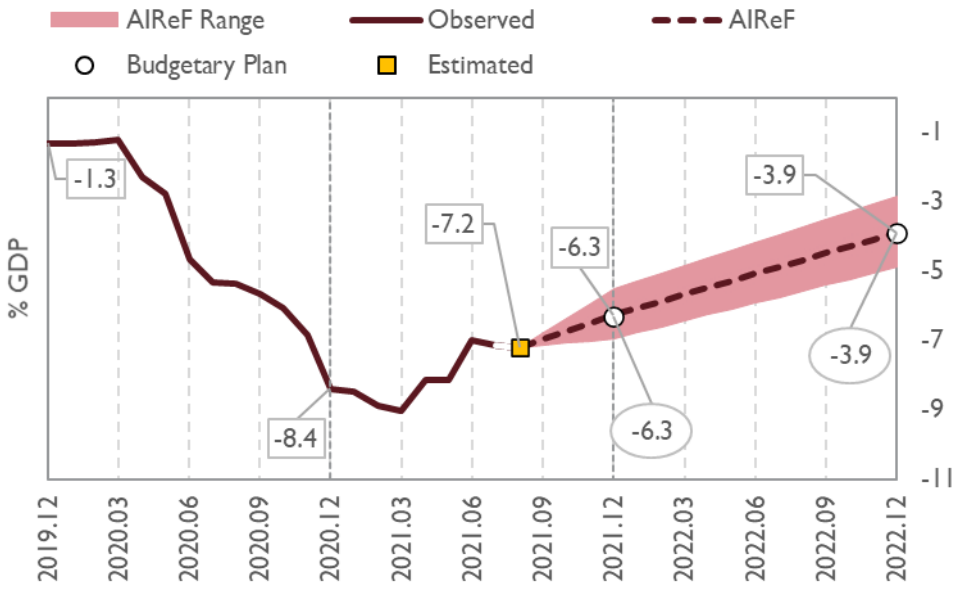
In addition, capital transfers are expected to rise by 65% to stand at 1.5% of GDP as a result of the boost from the RTRP and the forecast of enforcement in 2022 of ICO guarantees granted due to the pandemic. The expected growth is mainly in investment support, but also in other capital transfers. The former will be driven by execution of the RTRP in 2022, which, as with gross capital formation, is expected to be higher than that of 2021 when the non-executed expenditure of 2021 is added to the 2022 expenditure. The latter will receive the impact of the estimated enforcement of the guarantees granted by the State to companies and self-employed workers as a result of COVID, quantified at €6bn, 0.5% of GDP, in accordance with the provisions of the 2021-2024 Stability Programme.

Within the CG, a State deficit of 3.8% of GDP and a deficit of CG bodies of 0.1% of GDP is estimated. For the State, which receives approximately 80% of the revenue of the sub-sector, revenue in national accounting terms is expected to increase by 13% in 2021, without taking into account NGEU Funds, and by 10.2% in 2022. These percentages would stand at around 20% and 16.5% in 2021 and 2022, respectively, with the effect of the revenue from the RRF and REACT-EU. The revenue of CG bodies is expected to grow by 7.9% in 2021 and by 1.2% in 2022. This growth would be much higher if the NGEU funds were included, amounting to 24.4% and 17.4% in 2021 and 2022, respectively. Regarding expenditure, an increase of 3.7% is expected for the State in 2022, which is particularly driven by the expenditure associated with the NGEU funds. For its part, the estimated increase in expenditure for CG bodies is 19.5% compared with 2021, mainly as a result of capital transfers to other sub-sectors due to the RTRP funds.

According to AIReF's forecast, computable expenditure for the purposes of the expenditure rule would fall in 2022 by around 3% compared with 2021. Part of this reduction is due to the positive effect of the revenue increase expected for 2022 from tax reforms, which have an estimated net positive effect of 0.2% of GDP. The rest of the reduction is conditioned by temporary expenditure due to non-recurring operations and COVID measures to address the pandemic, which are included in the computable expenditure for 2021 but are expected to fall by 45% in 2022. If we deducted these temporary expenses, the

computable expenditure would rise by around 6%. The factors behind this increase includes a greater contribution in 2022 to the SSFs in the gradual process of financing expenditure considered "improper"[27]. Finally, it is important to bear in mind that RTRP and REACT-EU expenditure falls outside the expenditure rule.

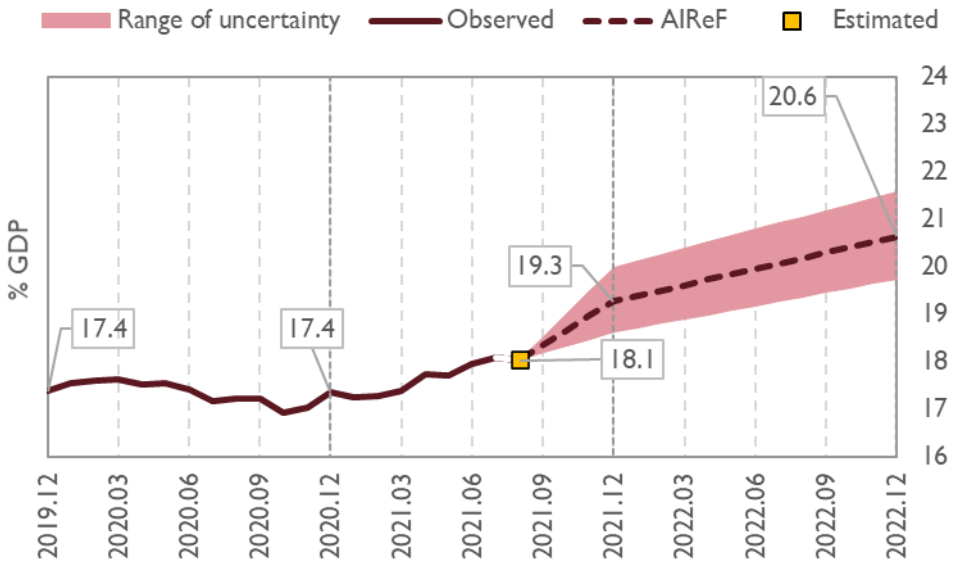
FIGURE 58. EVOLUTION OF CENTRAL GOVERNMENT BALANCE



Source: AIReF and IGAE

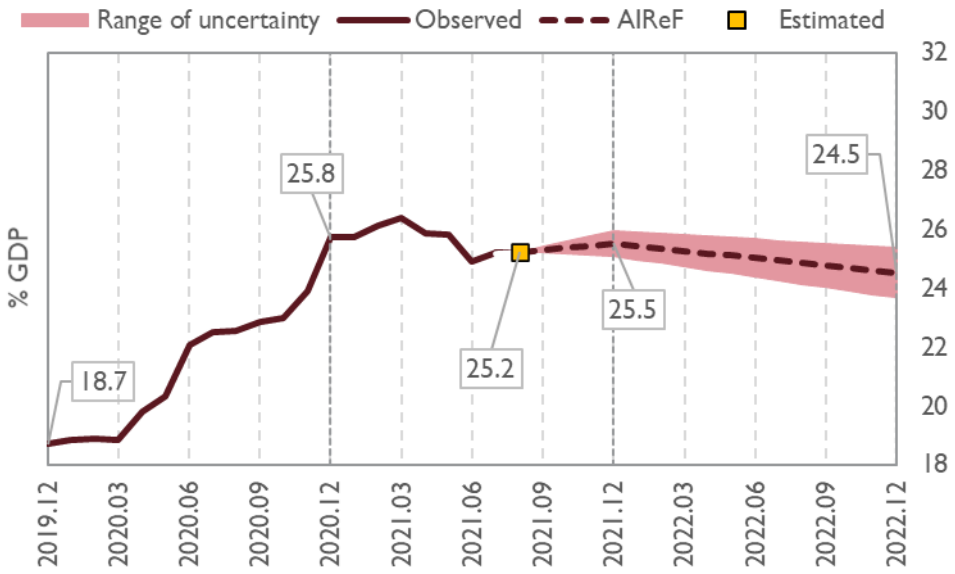
[27] The fact that the State has borne the financing of the "improper" Social Security expenditure means that this expenditure is incorporated into the CG's expenditure rule. Until 2021, the year in which this commitment is adopted by the State, this expenditure was not subject to this fiscal rule because it was an expenditure of the SFFs.

FIGURE 59. EVOLUTION OF CENTRAL GOVERNMENT REVENUE



Source: AIReF and IGAE

FIGURE 60. EVOLUTION OF CENTRAL GOVERNMENT EXPENDITURE



Source: AIReF and IGAE

4.3.2 Social Security Funds

AIReF forecasts that the Social Security Funds (SSFs) will reduce their deficit in 2021 to 1.5% of GDP, falling to 0.5% in 2022, in line with the deficit in the Budgetary Plan. The exit from the COVID-19 crisis has a two-fold impact on the SSFs. On the one hand, the improvement in the macroeconomic outlook is reflected in very dynamic contributions, and on the other hand, the cost of mitigating measures has been reduced and will almost disappear in 2022.

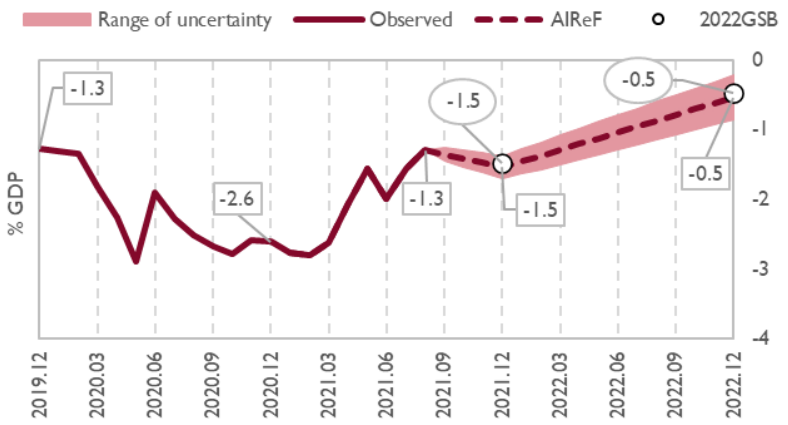
The decisions taken in the Toledo Pact aimed at eliminating "improper" social security expenditure have led to an increase in current transfers from the CG. This implies a transfer of the structural deficit from the Social Security system to the CG. Furthermore, this resolution goes together with the decision to raise pensions by the CPI of the previous year and repeal the sustainability factor, which pushes spending upwards. In addition, the reform currently being processed includes various mechanisms aimed at delaying the effective retirement age. The effect of these mechanisms on the evolution of expenditure will depend on the extent to which workers and companies modify their retirement decisions. Finally, it is expected that an intergenerational equity mechanism will be approved, although no announcement has yet been made on how this will work.

Evolution of revenue and expenditure

Revenue reduces its weight over GDP to 16.2% in 2021 and 15.5% in 2022, due to the denominator effect. The reduction in points of GDP occurs in the two main sources of SSF revenue. Regarding transfers from other GG sub-sectors, a distinction can be made between the transfers to the Social Security system, which increase both in nominal terms and in points of GDP, and transfers to SEPE, which decrease even in nominal terms. The combined result is a nominal increase which does not translate into an increase in points of GDP. Regarding the evolution of contributions, despite an increase in nominal terms, their weight over GDP falls.

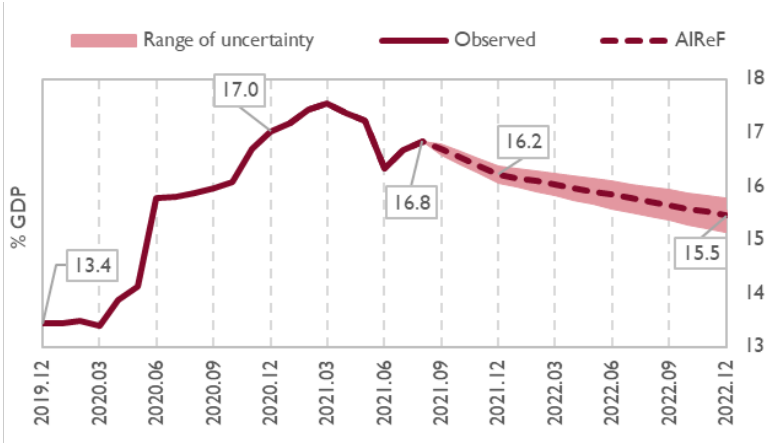
Expenditure also sees a decrease in its weight over GDP by 1.9 points of GDP in 2021, to 17.8%, with its weight falling by a further 1.8 points of GDP in 2022 to stand at 16%. This reduction is both due to the improvement in the situation of the job market, as well as the denominator effect, and, primarily, to the reduction in the cost associated with the measures adopted due to COVID-19 in 2021 until their near disappearance in 2022.

FIGURE 61. EVOLUTION OF THE BALANCE OF THE SOCIAL SECURITY FUNDS



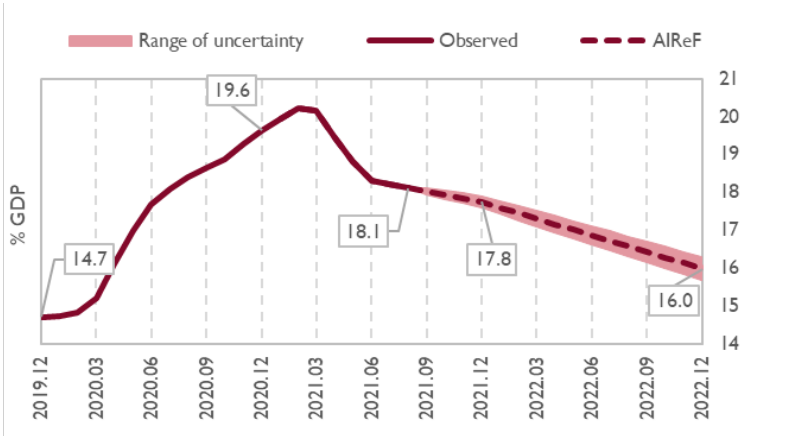
Source: AIReF, IGAE, Social Security and SEPE

FIGURE 62. EVOLUTION OF THE REVENUE OF THE SOCIAL SECURITY FUNDS



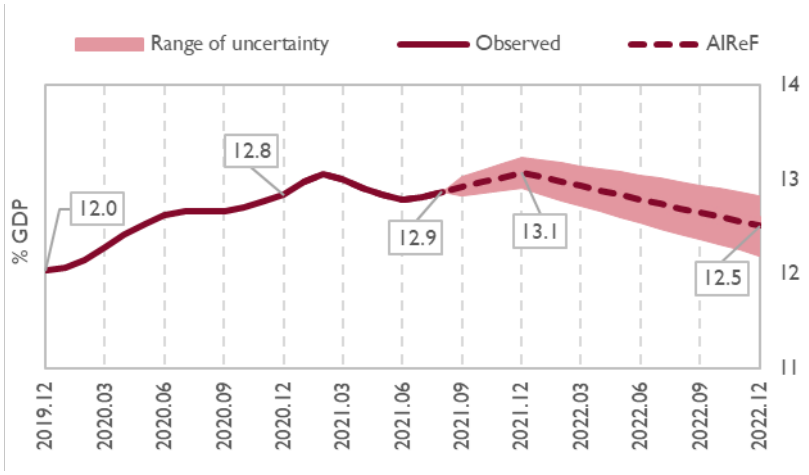
Source: AIReF, IGAE, Social Security and SEPE

FIGURE 63. EVOLUTION OF THE EXPENDITURE OF THE SOCIAL SECURITY FUNDS



Source: AIReF, IGAE, Social Security and SEPE

FIGURE 64. EVOLUTION OF THE CONTRIBUTIONS OF THE SOCIAL SECURITY FUNDS



Source: AIReF, IGAE, Social Security and SEPE

This evolution does not affect the various agents of the Social Security Funds equally. By performing a simplified analysis, based on the situation of each agent at the end of 2020, AIReF analyses the impact of the measures, the macro scenario and the transfers received by each agent from the Central Government. The SSF deficit has been reduced by 1.1 points of GDP in 2021, with that reduction corresponding to SEPE, with the deficit of the SSFs being slightly higher than in 2020. This increase is due to several factors: a reduction in transfers, the increase in pension expenditure, which includes the additional payment in 2021, and the increase in the cost of the Minimum Living Income. These factors cancel out the positive effects of the improved macroeconomic scenario and the reduction in the cost of COVID measures. In the case of SEPE, the increase in transfers is combined with the reduction in the cost of ERTEs to move from a deficit of 1.1 to a slight surplus in 2021. For 2022, the deficit is reduced by an additional point of GDP, with 0.8 points corresponding to the SSS and only 0.1 points to the SEPE. In the case of the SSS, this fall is due to an increase in transfers and a reduction in the cost of measures that manage to offset the increase in the in the pension bill. In the case of SEPE, the reduction in transfers from other GG sub-sectors in 2022 means that the impact of the reduction in the cost of the measures on the deficit is limited.

TABLE 11.BALANCE BY AGENT OF THE SOCIAL SECURITY FUNDS (% GDP)

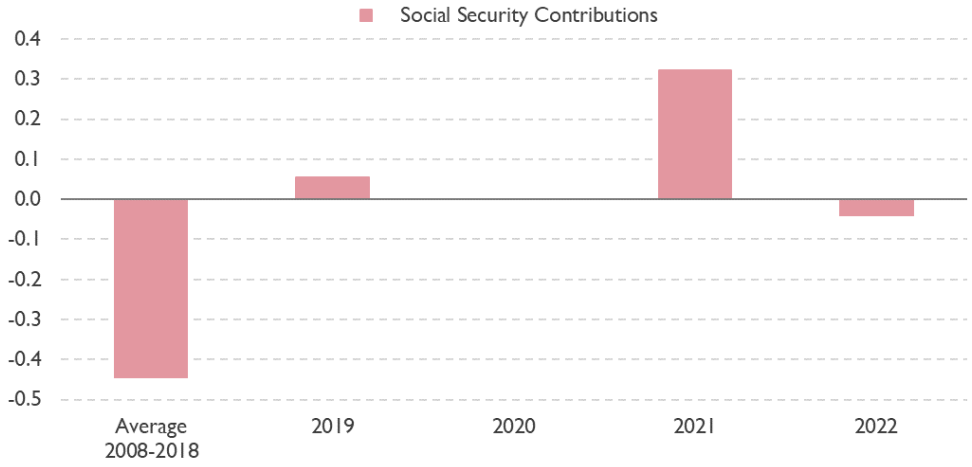
	2020	2021	2022
SSFs	**-2.6**	**-1.5**	**-0.5**
SSS	-1.5	-1.6	-0.8
SEPE	-1.1	0.1	0.2

Source: AIReF, Social Security and SEPE

Deviations in social contributions from the budget

AIReF estimates that in 2022 the social contributions of the SSS will record a slightly lower amount in 2022 than forecast in the draft GSB by around €500m. This negative deviation is much lower than the average deviation of over 0.4 points of GDP for the period between 2008 and 2018. This breaks a trend beginning in 2019 of positive deviations, especially the deviation of over 0.3 points that AIReF estimates for 2021. These data are in line with national accounting estimates, where AIReF considers a higher level for contributions in 2021, but an almost identical level for 2022. The following figure shows the deviation or budgeting error, which is calculated by comparing the revenue forecasts included in the budget with the actual collection after deducting the positive or negative impact on collection of any regulatory measures approved subsequent to approval of the GSB for each year.

FIGURE 65. DEVIATION: RECEIVED WITH RESPECT TO THE APPROVED BUDGET (*)



(*) Deviation = Revenue collected without the impact of measures approved subsequent to the GSB - Budgeted
Positive: Revenue collected > Budgeted
Negative: Revenue collected < Budgeted

Source: AIReF and Social Security

4.4 Measures included in the Budgetary Plan and the General State Budget

The main revenue measures affect the CG and will add a little under 0.3 points to the weight of revenue over GDP in 2022. This increase in collection will mainly take place as a result of the measures that were approved in the 2021 General State Budget as well as the establishment of the Financial Transactions Tax, the

Tax on Certain Digital Services and the Tax on Single-use Plastics. Most of them have started to take effect in 2021, although their full effect will be recorded in 2022. The new measures announced in the 2022 General State Budget effect PIT as a result of a new modification to the limits to contributions to pension schemes. They also affect Corporate Income Tax both as result of establishing a minimum taxation[28] on the tax base and of reducing to 40% the allowance included in the Special Regime for Entities engaged in the Leasing of Houses. However, the effect of these new measures will shift to 2023 when the settlements for both taxes relating to 2022 are filed.

AIReF forecasts a greater impact as a result of the modification to the limits to contributions to pension schemes introduced in the PIT than the draft 2022 GSB and a lower impact for the new Tax on Single-use Plastics. With regard to pension schemes, AIReF quantifies an effect of €761m for 2022, about €100m above the Government's valuation[29]. In relation to the new Tax on Single-use Plastics, AIReF forecasts an annual impact of €375m[30], which is below the Government's estimate. It also estimates that the tax will record half of its effect in 2022 as the Law on Waste and Contaminated Soil is currently being processed and it provides that the tax will not start to accrue until three months after the law enters into force. It should also be noted that the new deductions in Personal Income Tax for housing rehabilitation aimed at contributing to improving energy efficiency (RDL 19/2021) will be financed through the Recovery, Transformation and Resilience Plan, so they will have no impact on the deficit.

The set of measures adopted to mitigate the rise in electricity prices will reduce revenues by almost 0.1 points of GDP in 2021. The joint estimate by AIReF for the reduction in revenue caused by reductions in the VAT rate on electricity consumption[31] and the rate of the Special Tax on Electricity[32] and by the suspension of the Tax on the Value of Electricity Production[33] is about €200m lower than that of the Government. Although these measures will be in force until the end of 2021, part of their effects extend to 2022 because the accrual

[28] 15% for consolidated groups and companies whose net turnover is equal to or greater than €20m over the 12 months prior to the start date of the tax period; 10% for newly-created companies and 18% for credit institutions and hydrocarbon companies.

[29] The result is calculated based on the Tax Agency's 2018 Personal Income Tax sample, to which the estimated evolution of the bases for 2021 is applied.

[30] Obtained from the kilograms of plastic products manufactured (Industrial Products Survey 2020, INE), from which the total amount related to recycled production is subtracted (recycling rate obtained from the data on "Generation and Management of Packaging Waste in Spain 2019" of the Ministry for Ecological Transition and the Demographic Challenge), and on which the established tax rate is applied.

[31] VAT: reduction of the rate on electricity in force until 31/12/2021(RDL 12/2021)

[32] ST on electricity: reduction of the rate in force until 31/12/2021 (RDL 17/2021)

[33] Tax on the Value of Electricity Production: suspension during the second half of 2021 (RDL 12/2021 and RDL 17/2021)

of the last few months of the year is paid during the first few months of the following year. The suspension of the Tax on the Value of Electricity Production does not affect the public deficit as it entails a reduction of the same amount in the transfer from the budget of the Ministry of Energy to the National Commission on Markets and Competition (Spanish acronym: CNMC).

The tax measures adopted to combat the COVID-19 crisis will have little impact in 2022. Revenue at year-end 2021 will be affected by the various changes to VAT on medical devices and support measures aimed at providing flexibility and greater liquidity for companies and self-employed workers which, according to AIReF estimates, will entail a reduction of €651m, in line with the Government's valuation. Only the impact of the tax incentive established for natural persons who had applied reductions in the rent of premises intended for certain economic activities affected by the pandemic during the first quarter of 2021 (RDL 35/2020) will be shifted to 2022, since 2022 is the year in which the PIT settlement of 2021 will be submitted.

TABLE 12.TOTAL ANNUAL IMPACT OF CG REVENUE MEASURES IN CASH TERMS: AIREF-GOVERNMENT COMPARISON

REVENUE measures (Total annual impact)	Source	Government 2021	Government 2022	AIReF 2021	AIReF 2022	Difference 2021	Difference 2022
PIT		**-73**	**536**	**-67**	**750**	**6**	**214**
Increase in rates on the highest income bases	2021 GSB	144	490	154	523	10	33
Modification of pension scheme contribution limits	2021 GSB	0	580	0	761	0	181
Increase in deductions for gifts, deductions for housing rehabilitation and COVID measures	RDL 17/2020, 19/2021, 15,35/2020	-217	-534	-221	-534	-4	0
Corporate Income Tax		**140**	**1,516**	**139**	**1,516**	**-1**	**0**
Limitation on exemption for dividends and capital gains	2021 GSB	173	1,520	173	1,520	0	0
Increase in deductions for films, increase in SOCIMI (Spanish REIT company) tax rate and COVID measures	RDL 17/2020	-33	-4	-34	-4	-1	0
VAT		**-775**	**-85**	**-630**	**89**	**145**	**174**
Increase in rates on sugary drinks	2021 GSB	190	225	257	309	67	84
Reduction in electricity rate	RDL 12/2021	-565	-310	-438	-219	127	91
COVID measures	RDL 15, 28, 34, 35/2020	-400	0	-448	0	-48	0
STs		**-303**	**-107**	**-252**	**-104**	**51**	**3**
Reduction in electricity rate	RDL 17/2021	-303	-107	-252	-104	51	3
OTHER		**550**	**1,195**	**515**	**914**	**-35**	**-281**

Financial Transactions Tax: Establishment	Law 5/2020	340	372	287	340	-53	-32
Tax on Certain Digital Services: Establishment	Law 4/2020	155	225	140	203	-15	-22
Tax on Insurance Premiums: Increase in rates	2021 GSB	455	507	452	493	-3	-14
Tax on the Value of Electricity Production: Suspension	RDL 12, 17/2021	-400	-400	-364	-309	36	91
Tax on Single-use Plastics: Establishment	In process	0	491	0	188	0	-303
TOTAL		**-461**	**3,055**	**-295**	**3,165**	**166**	**110**

Source: AIReF and 2022 Budgetary Plan

4.5 Autonomous Regions

4.5.1 Sub-sector analysis

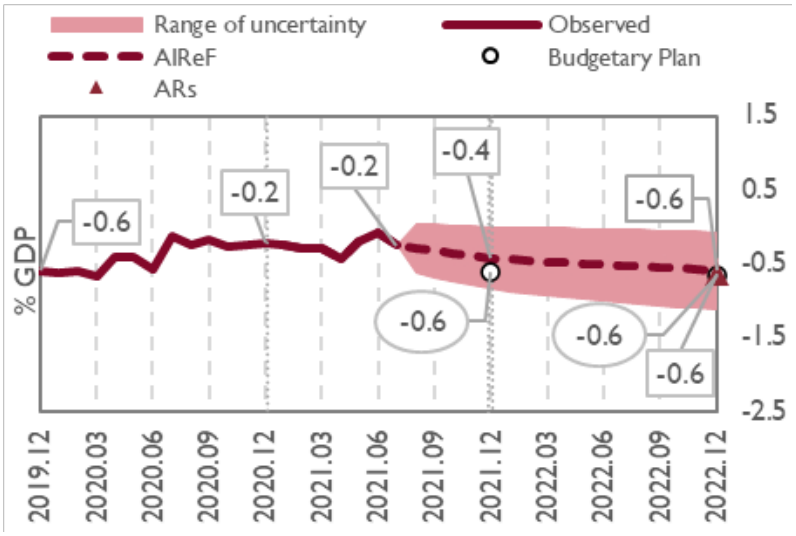
AIReF's outlook for 2021 improves slightly compared with the previous report, with a deficit forecast for the sub-sector of 0.4% of GDP. This is more optimistic than the 0.6% forecast included in the Budgetary Plan and estimated by the regions. With respect to its previous statement on July 15th, AIReF has improved its 2021 year-end forecast for the regional sub-sector by 0.1 points. Aside from the decrease in the forecast execution of RTRP funds, which has no impact on the deficit, the key improvement comes from the upward revision of revenue above that of expenditure. This is done on the basis of the execution data observed to date, the other updated information on the measures adopted in relation to the pandemic and the final year-end figures for 2020. Revenue forecasts have thus increased by 0.2 points of GDP, mainly due to Transfer Tax and Stamp Duty, Inheritance and Gift Tax and EU structural funds. At the same time, the forecasts for expenditure have been corrected, mainly current expenditure, which rises by 0.1 points on the previous estimates. The regions have generally improved the estimates on 2021 provided in the previous report, by 0.2 points for the sub-sector as a whole, to -0.6%, under growth in expenditure not related to the pandemic, which remains more pronounced than estimated by AIReF, although the differences are narrowing.

AIReF forecasts that the AR sub-sector will reach a deficit of 0.6% of GDP in 2022, similar to the reference rate set and slightly lower than that forecast by the ARs as a whole for that year. The balance of the sub-sector would worsen by about 0.2 points compared with the figure expected by AIReF in 2021 as a fall in revenue is expected that is moderate, but higher than the expected fall

in expenditure. AIReF's forecasts on the position of the sub-sector fundamentally are prepared considering the information included in the regional main lines or draft budgets presented and the supplementary information provided by the ARs, as well as the provisions contained in the draft 2022 GSB. In addition, a series of general assumptions have been applied on those elements for which full information or specific forecasts are not available. Accordingly, it is expected that the RTRP funds planned and distributed in 2021, which could not be executed in 2021 due to a lack of time, will be executed in 2022, together with a percentage of those assigned in 2022 in the draft GSB. At any event, these funds have a neutral effect on the deficit. Regarding the REACT-EU funds, for those ARs in which full information was not available, their execution in the period 2021-2024 has been estimated by applying the average for the sub-sector. If we excluded the effect of REACT-EU, as the Government does, the deficit forecast would worsen in 2022 to 0.8% of GDP.

The ARs expect to reach a slightly higher deficit in 2022 as a whole. Most of the ARs expect to reach the reference rate set in 2022 (-0.6% for the regions under the ordinary regime, -0.9% for the regime applicable to the Basque Country and Navarre). However, in the draft budgets presented by Extremadura and Castile-La Mancha and the lines prepared by Murcia, higher deficits are estimated, of 1.7% in the first case and 1.1% in the other two. In the opposite direction, the Canary Islands prepares its lines considering a lower deficit, of 0.1% for 2022. The aggregate regional forecasts would therefore result in a deficit of 0.7% in 2022, with estimates of revenue and, to a greater extent, expenditure higher than those considered in AIReF's scenario.

FIGURE 66. EVOLUTION OF THE REGIONAL BALANCE (% GDP)



Source: AIReF and IGAE

Regional revenue would fall by around 2%, losing 1.6 points of GDP due to the expected improvement in the latter. The reduction in revenue due to the negative 2020 settlement of the financing system and the non-repetition of the extraordinary fund for the 2021 deficit has been significantly mitigated by the compensation expected from the State for the aforementioned 2020 settlement and that resulting from the VAT management system for 2019. In addition, tax revenue is expected to evolve positively, although with a slower rate of growth than in the previous year, and a higher volume of revenue from REACT-EU funds, as a result of the certification of expenditure both from the year and from execution in the previous year pending certification. AIReF's estimates also include the revenue from the new State Tax on Waste, which will be transferred to the ARs under the provisions of the bill.

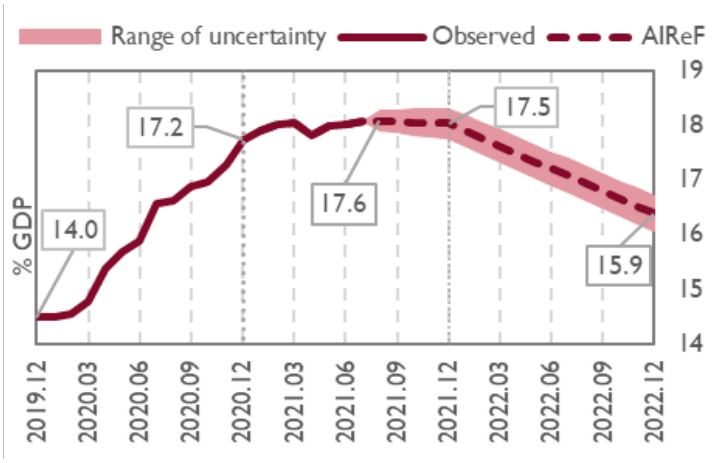
TABLE 13. EXPECTED EVOLUTION OF REGIONAL REVENUE 2022. AR SUB-SECTOR (€BN AND % CHANGE)

	2021	2022	% change 22 /21
Total net revenue	**211**	**207**	**-2%**
Net revenue without RTRP or support for companies	**200**	**196**	**-2%**
RFS	125	121	-3%
Deficit/Compensation Fund*	13	8	-43%
Tax on Property Transfers and Stamp Duty	10	10	8%
Inheritance and Gift Tax	3	3	-15%
Other revenue	49	54	11%
RTRP revenue	3	11	
Support for companies	7		

**Includes in 2022 the transfer due to the new State tax on waste*

The regional forecasts envisage greater growth in revenue not associated with RTRP funds. In general, the estimates of the ARs do not include forecasts of the execution of revenue and expenditure associated with the RTRP. However, as a whole, they expect a greater amount of other revenue, concentrated in transfers from the State (largely due to the transfer that Valencia usually includes in its initial forecast, for an amount of €1.3bn, not included in the draft GSB) and from European funds other than the RTRP and REACT-EU.

FIGURE 67. EVOLUTION OF REGIONAL REVENUE (% GDP)



Source: AIReF and IGAE

AIReF forecasts that the expenditure of the ARs will fall slightly, standing at 1.4 points of GDP below the 2021 level. Expenditure is expected to record a slight fall on the level of the previous year, with the reduction directly linked to COVID largely being offset by more pronounced growth in other expenditure.

AIReF expects expenditure directly associated with the healthcare crisis to fall by 0.7 points of GDP. AIReF estimates that in 2022 this COVID expenditure will fall overall by around 70%, dropping from 1% of GDP in 2021 (without State support for companies) to 0.3% of GDP in 2022. The decrease in COVID spending is expected to be less pronounced in such areas as health and education (where it is estimated that over 50% and close to 40%, respectively, of the expenditure incurred in 2021 as a result of COVID may be maintained) and more intense in other areas (which might reduce 2021 COVID spending by about 90%). At any event, part of this expenditure might already be of a structural nature and not be reversed, even if the health crisis were to be completely overcome in 2022.

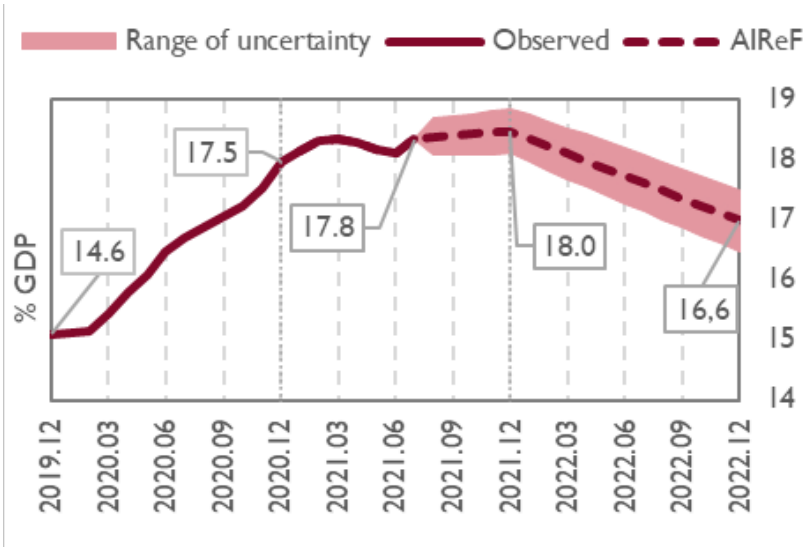
In contrast, a significant increase in expenditure not directly linked to COVID is expected. In the field of healthcare, it is estimated that the reduction in waiting lists and other aspects caused by the health crisis, as well as pharmaceutical spending and the wage increase, could keep overall spending on health at levels similar to those of the previous year. Along the same line, the wage revaluations, educational agreements and other modernisation and digitisation measures that might be carried out in the field of education could offset much of the partial reduction expected in the measures associated with the health crisis. In other areas, the recovery of activity, dependency care, wage growth and the measures and projects linked to European structural funds would also cancel out most of the expected reduction in COVID spending.

TABLE 14.EXPECTED EVOLUTION OF REGIONAL EXPENDITURE 2022. AR SUB-SECTOR (€BN AND % CHANGE)

	2021	2022	% change 22 /21
Total net expenditure	**216**	**214**	**-1%**
Net expenditure without RTRP or support for companies	**206**	**204**	**-1%**
Healthcare	80	80	0%
Education	50	49	-2%
Other expenditure	75	74	-1%
RTRP expenditure	3	11	
Support for companies	7		

The ARs as a whole forecast sharper growth in expenditure not associated with RTRP funds. The aggregated regional forecasts predict higher expenditure increases than those estimated by AIReF, which seem to be concentrated in capital expenditure. Although this is partially associated with higher forecast revenue from traditional EU structural funds, another part of the differential increase is due to estimates of expenditure not associated with earmarked funding.

FIGURE 68. EVOLUTION OF REGIONAL EXPENDITURE (% GDP)



Source: AIReF and IGAE

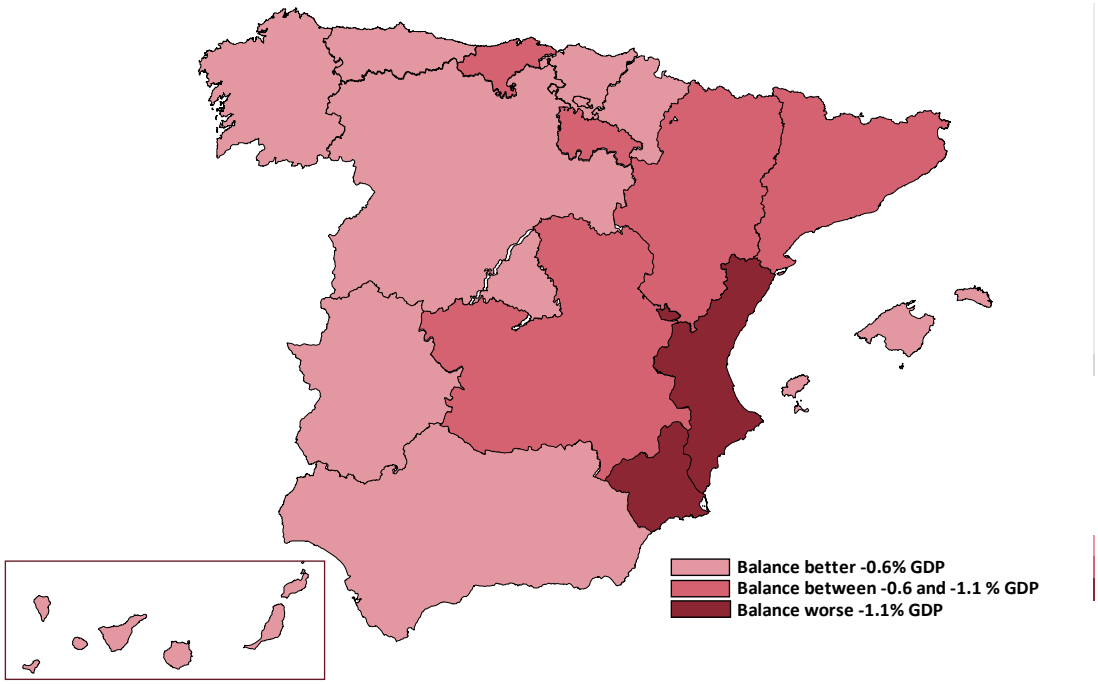
AIReF considers that the computable expenditure for the purposes of the expenditure rule will decrease in 2022. On the basis of an estimate of computable expenditure in 2021 which might rise by around 10% on the level of 2020, it is considered that the change in computable expenditure in 2022 will be negative, around -3%, under the aforementioned estimates of

expenditure, allocated State transfers and revenue from EU funds. The expected changes are greatly affected by considering the COVID-19 Fund transfers in 2020 as allocated expenditure, which allowed them to be excluded from the calculation of the rule for that year. Given that in 2021 the extraordinary transfers received from the State have not been defined as such, they are not excluded from the calculation of the rule, which accentuates the growth of computable expenditure over the figure recorded in 2020. The high starting level in 2021 and the expected evolution in 2022 of revenue from European funds that are excluded from the rule results in the negative estimate of the rate for 2022.

4.5.2 Individual forecasts

At an individual level, the forecasts for year-end 2021 improve for nine ARs compared with the previous report, while they worsen for four ARs. A major part of the individual variations stem from the distribution of the extraordinary deficit fund, which finally took place under population criteria and not according to GDP, as initially estimated by AIReF and most of the ARs. In addition, the execution data to date and the information provided by the ARs have led to the revision of expected revenue and expenditure at year-end. Consequently, the forecasts for Andalusia, Asturias, the Balearic Islands, Castile and Leon, Castile-La Mancha, Extremadura, Navarre, Murcia and Valencia improve, although the latter two are still expected to have a deficit of over 1.1%. In contrast, the outlook for 2021 in Aragon, Cantabria, Catalonia and Rioja worsens, although they remain below -1.1%.

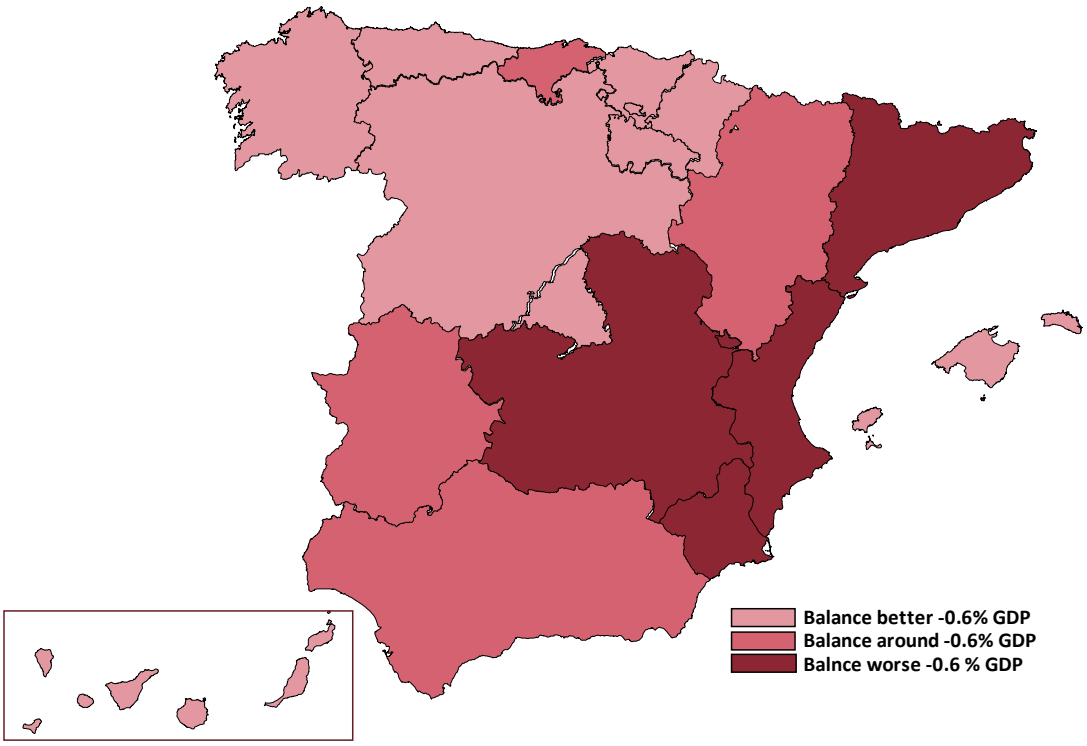
FIGURE 69. MAP OF AUTONOMOUS REGIONS NET LENDING/BORROWING IN 2021 IN RELATION TO THE REFERENCES OF -1.1% AND -0.6% OF THE BUDGETARY PLAN FOR THE SUB-SECTOR



Source: AIReF

For 2022, AIReF estimates that nine ARs might close the year with a deficit of under 0.6%, four with a similar deficit and another four with a higher deficit. AIReF estimates that Asturias, the Balearic Islands, the Canary Islands, Castile and Leon, Galicia, Madrid, Navarre, the Basque Country and Rioja would achieve a balance more favourable than the reference set for the sub-sector. Of those, the Canary Islands also forecasts a deficit lower than 0.6%. On the other hand, Andalusia, Aragon, Cantabria and Extremadura would close with a similar balance. Finally, Castile-La Mancha, Catalonia, Murcia and Valencia would exceed that deficit. This is forecast both in the draft budget of Castile-La Mancha and in the budgetary lines of Murcia.

FIGURE 70. MAP OF AUTONOMOUS REGIONS NET LENDING/BORROWING IN 2022 IN RELATION TO THE REFERENCE OF 1.1% FOR THE SUB-SECTOR.



Source: AIReF

As shown in the previous year, some of the draft budgets and budgetary lines forecast growth in expenditure higher than that estimated by AIReF. These increases might be structural in nature and should they materialise, they would raise the sub-sector's deficit by 0.2 points. Although the evolution of expenditure not financed by revenue in most ARs is in line with AIReF's estimates, the Balearic Islands, Extremadura, Galicia, Navarre, the Basque Country, Rioja and Valencia record a level of expenditure higher than that calculated under AIReF's assumptions, which leads to a discrepancy at an aggregate level. While this growth only implies 1% more for the sub-sector as a whole and an additional 0.2 points of GDP over AIReF's forecasts, it may involve much higher changes at an individual level. In addition, in the event that this increase materialises, it might be structural and would not, in theory, be permanently financed, thus increasing the structural deficit that existed prior to the crisis.

A detailed analysis is included in the individual reports that will be published shortly. The individual reports to be published in the near future will contain detailed information on the forecasts for 2022 for each of the ARs.

4.6 Local Governments

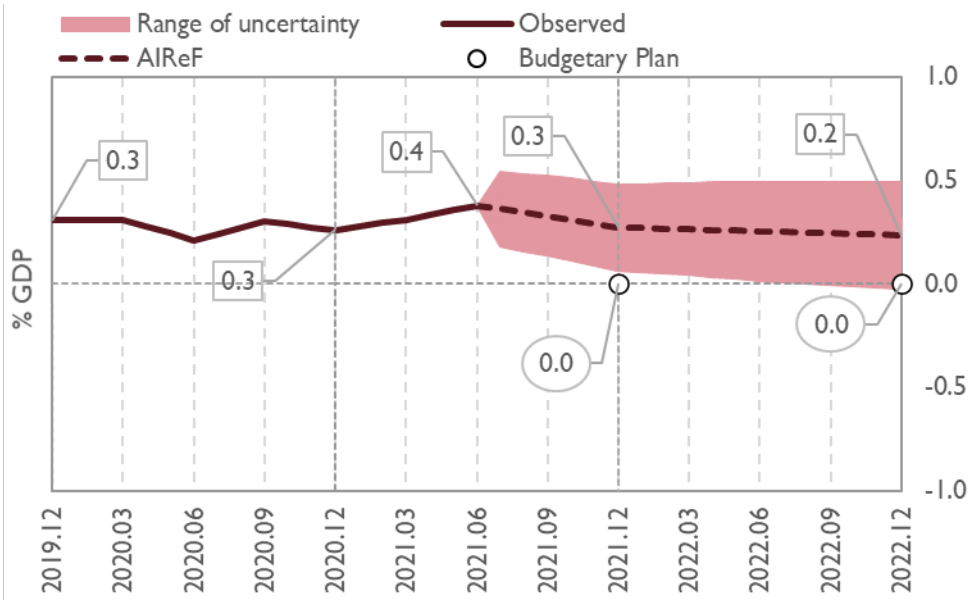
AIReF confirms its July forecasts for the local sub-sector, estimating that it will reach a surplus of close to 0.3% of GDP in 2021. Using the latest published data, AIReF has updated the forecast results for year-end 2021 for Local Governments as a whole under the assumption, in its central scenario, that the economic impacts and measures adopted to mitigate the effects of the pandemic will continue through the first half of the year. In view of the latest available data, corresponding to local non-financial operations, debt level and deposits at the end of the first half of 2021, and the data reported to AIReF by the large LGs subject to individual monitoring on the updated estimate for year-end 2021, and the impact of the revenue and expenditure measures adopted and estimated for this year due to COVID-19, AIReF maintains its forecast that the local sub-sector will obtain a surplus of close to 0.3% of GDP in 2021.

This balance is the result of 6% growth expected by AIReF in local revenue and 5.5% in expenditure. This growth is influenced by the improvement in revenue linked to economic activity and the injection of EU funds, as well as, on the expenditure side, the application of surpluses from previous years which have been estimated at around 2 points of GDP. These balance forecasts are consistent with the year-end 2021 information submitted by the Ministry of Finance based on that sent by the LGs in September to said ministerial department, together with the main lines of the budgets to be executed in 2022, if said information is adjusted to a more realistic level of execution similar to that of previous years.

For 2022, AIReF estimates that the LGs could record a surplus of 0.2% of GDP, 0.1 points lower than that expected in 2021, as a result of the increase in expenditure above the increase in revenue. AIReF forecasts a local balance of 0.2% of GDP in 2022, as a result of expected annual growth in expenditure of almost 8.5%, above the expected increase in revenue of just over 7.5%. This reduction in the local balance in 2022 is mainly due to: the realisation of expenditure financed from surpluses not completed in 2021, the additional application this year of LG surpluses to new expenditure, the negative settlement of the financing system for 2020 (partially offset by transfers from the State budget), as well as the application of funds from the RTRP. The information sent by the Ministry of Finance on the main lines of the 2022 budgets, sent by the LGs at the end of September, is consistent with AIReF's estimates if a more realistic level of expenditure execution is taken into account and the higher estimated expenditure to be made next year financed with the cash surpluses resulting from the 2021 settlement is incorporated (which is not incorporated in the main lines), given that said settlement will be carried out in the first quarter of 2022.

AIReF forecasts for the local sub-sector improve the balanced budgetary scenario set out in the Budgetary Plan in both financial years. For 2021, AIReF estimates that the recovery of revenue to 2019 levels, as a result of the economic recovery, and the limited spending capacity of the LGs, will limit the negative effects on their results of the growth in expenditure resulting from the temporary suspension of fiscal rules and application of cash surpluses from previous years to additional expenditure. In 2022, once again, the lower level of expenditure execution, particularly investment expenditure, will determine the improvement in the balance for the year, since AIReF does not forecast that the total projected expenditure can be fully carried out.

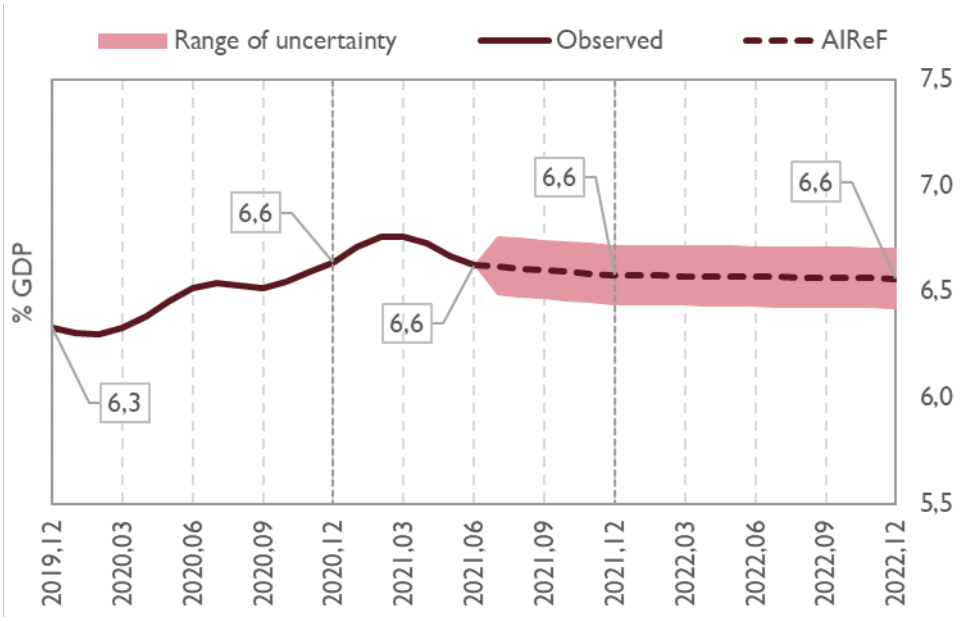
FIGURE 71. EVOLUTION OF THE BALANCE OF THE LG SUB-SECTOR (% GDP)



Source: AIReF and IGAE

In 2022, local revenue would grow by almost 8%, mainly conditioned by the improvement in revenue primarily linked to economic activity and the higher level of funds to be received from the EU. According to AIReF's estimates, the injection of funds from the EU's economic recovery mechanisms - close to €3.3bn - and the growth in tax revenue linked to the improvement in economic activity, such as that of the provincial councils of the Basque Country and Navarre, as well as those corresponding to the State financing system, and other taxes, might lead to an increase in the revenue of the LGs in 2022 of over 7.5%.

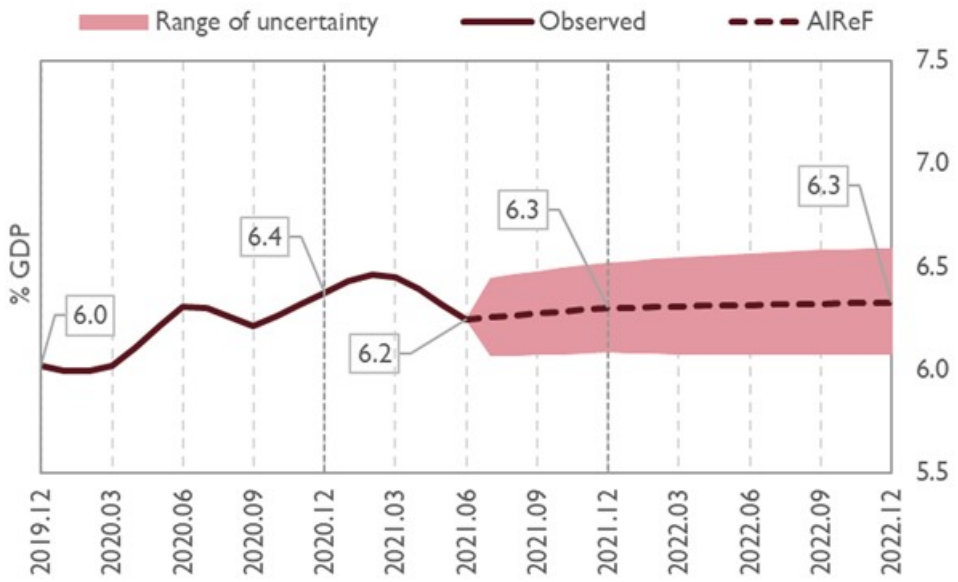
FIGURE 72. EVOLUTION OF THE REVENUE OF THE LG SUB-SECTOR (% GDP)



Source: AIReF and IGAE

For 2022, AIReF's forecasts of local expenditure would rise by almost 9% on the 2021 level, given the higher spending financed with NGEU funds or with savings from previous years, as well as the payment of the settlement of the financing system for 2020. AIReF estimates that expenditure might grow by 8.5%, mainly as a result of the rise in capital expenditure, given the application of NGEU funds, of close to €3.2bn, to this type of spending and the additional expenditure on both direct and indirect investment with surpluses settled in 2021, estimated by AIReF to stand around €500m. In addition, the recording of the negative settlement of the 2020 financing system, once it is carried out (regardless of its deferred payment and the compensation from the State by transferring the expenditure budget), and the application of previous savings to primarily fund higher current and social expenditure and expenditure on law-enforcement agencies, of around €1bn, raise the expected increase in local expenditure over the year to above 8.5% on expected 2021 expenditure.

FIGURE 73. EVOLUTION OF THE EXPENDITURE OF THE LG SUB-SECTOR (% GDP)



Source: AIReF and IGAE

The expected GDP growth, in both 2021 and 2022, neutralises the rise in local revenue and expenditure measured in terms of weight over GDP. As can be seen in the figures above, it is estimated that the weight of LG revenue and expenditure as a proportion of GDP is maintained at 6.6% and 6.3%, respectively, despite the expected year-on-year growth in absolute values, as a result of the expected rise in GDP in both years.

The available information on the evolution of local debt and deposits corroborates AIReF's forecasts on the results to be achieved by the LGs in 2021 and 2022. According to the latest data published by the Bank of Spain on local debt and deposits as at June 2021, the debt of the LGs has fallen in the first half of the year by almost €700m, while local deposits have decreased by €1.5bn. Consequently, the sub-sector's net asset position has worsened following application of savings accumulated in deposits to higher expenditure in the context of suspended fiscal rules. Given that the suspension of the rules will remain in force in 2022, AIReF estimates that this behaviour will be consolidated and, therefore, local surpluses will fall.

There are major uncertainties about the impact on the 2021 and 2022 result of the level of expenditure financed with surpluses from previous years and the substitution effect that said expenditure will have on expenditure financed with revenue from the year. AIReF's central scenario may be altered upwards or downwards by the limitations to the scope arising from the quantification in 2021 and 2022 of the expenditure local governments may make by applying the surpluses from previous years, as well as the impact of the capacity of the spending structures of the different LGs on the level of expenditure that is finally recorded in both years. Increased expenditure with cumulative savings from

previous years may displace new expenditure from own or external funds from the year in question.

AIReF estimates that the computable expenditure for the purposes of the expenditure rule may fall in 2022. The computable expenditure of the LGs may fall in 2022 under the aforementioned estimates of expenditure and revenue from EU funds. This might be due to the fact that a major part of the expenditure to be carried out in 2022 will be financed with NGEU funds, which are much higher than in 2021. This may displace the expenditure financed with other revenue.

The forecasts of the group of large LCs for year-end 2021 and 2022, corrected for the level of execution, are consistent with AIReF's scenarios for both years. AIReF has requested the large LGs to provide information on their forecasts for year-end 2021 and the main lines for 2022. The data sent by these LGs show very prudent results in both years, mainly because they forecast a very high degree of execution of the expenditure, above that verified in previous years. After correcting this level of execution of expenditure to more realistic rates, based on settlement data from previous years, the results expected by the group of large LGs in 2021 and 2022 are consistent with AIReF's forecasts for the local sub-sector.

4.7 Impact of NGEU funds

4.7.1 Analysis of the Recovery, Transformation and Resilience Plan (RTRP)

For 2021, AIReF expects revenue and expenditure of the Recovery, Transformation and Resilience Plan (RTRP) in national accounting terms of around €9bn. The scheduled disbursements under the RTRP amount to €19.04bn for 2021 (see Box 1), of which €9.04bn have already been received and the remaining €10bn will be received in December, provided the agreed milestones and targets are met. For its part, the expenditure of the RTRP budgeted by the Government is €24.21bn, according to the final appropriations of the 2021 GSB at the end of August. In the previous report, AIReF estimated that non-execution of RTRP expenditure was slightly above 20%, but it is now estimated to be over 60% in view of the delay seen in the latest RTRP execution data. Therefore, AIReF forecasts that in 2021 RTRP expenditure will reach its final recipient for an amount of about €9bn, which in national accounting terms means expenditure and revenue of €9bn as it is deficit neutral.

The reduction in the estimate of RTRP expenditure and revenue for 2021 compared with the previous report is due to the scant execution of allocated

expenditure of the RTRP to date. To the end of August, the State executed €4.9bn, around 20% of the expenditure budgeted as final appropriations. However, virtually all of this expenditure consisted of transfers of funds to CG bodies and to the ARs to execute directly or, in turn, to be transferred to other public authorities. This internal distribution of funds between sub-sectors is not considered as expenditure in the national accounts. It will therefore be necessary to wait until the expenditure reaches the final recipient to be recorded, which also leads to the recording of revenue in the national accounts for the same amount (see Box 1). At the end of August, only €104m of RTRP expenditure was executed as allocated expenditure and, therefore, only revenue for that amount has been recorded in the national accounts.

TABLE 15. DISTRIBUTION OF THE RTRP 2021 IN NATIONAL ACCOUNTS. AIREF FORECASTS (% GDP)

Distribution of the RTRP in 2021 (%GDP)	Total GG	CG	SSFs	ARs	LGs
NON-FINANCIAL REVENUE	0.7	0.7	0.1	0.3	0.0
CURRENT REVENUE	0.2	0.2	0.0	0.1	0.0
Allocated social contributions					
Current transfers between GG sub-sectors			0.0	0.1	
Current international cooperation	0.2	0.2			
Non-life insurance compensation					
Other current transfers					
CAPITAL REVENUE	0.6	0.6	0.0	0.1	0.0
Capital transfers between GG sub-sectors				0.1	0.0
Investment support	0.6	0.6			
NON-FINANCIAL EXPENDITURE	0.7	0.7	0.1	0.3	0.0
CURRENT EXPENDITURE	0.2	0.2	0.0	0.1	0.0
Compensation of employees	0.0			0.0	
Intermediate Consumption	0.1	0.0		0.0	
Social benefits other than social transfers in kind	0.0		0.0		
Social transfers in kind: production acquired on the market	0.0			0.0	
Current transfers between GG sub-sectors		0.1	0.0		
Other current transfers	0.0			0.0	
CAPITAL EXPENDITURE	0.6	0.6	0.0	0.1	0.0
Gross fixed capital formation	0.3	0.2		0.1	0.0
Capital transfers between GG sub-sectors		0.2		0.0	
Investment support	0.2	0.2		0.0	0.0

Source: AIReF estimates in national accounting terms

For 2022, AIReF forecasts revenue in national accounting terms for the RTRP at around €25.6bn, equal to the RTRP expenditure it estimates will be executed that year. The expected disbursements in 2022 amount to €18bn (see Box 1), after compliance with the established milestones and targets. The budgeted RTRP expenditure in the draft 2022 GSB amounts to €26.9bn[34]. However, AIReF forecasts the execution of the outstanding RTRP expenditure from 2021 of about €15.2bn in 2022, and 40% of the budgeted expenditure for 2022, a further €10.4bn. Given the high volume of 2021 expenditure that it is estimated will be transferred to 2022, 100% of the budgeted expenditure for 2022 is not

[34] The RTRP expenditure budgeted in the draft 2022 GSB amounts to €26.9bn, of which €25.62bn is non-financial budgetary expenditure.

expected to be executed and, therefore, at least 60% will be carried forward to 2023. With these assumptions, the RTRP's expenditure and revenue in national accounting terms will amount to around €25.6bn for 2022.

This temporary displacement will delay the impact of the RTRP on GDP growth. The effect of implementation of the RTRP on GDP will be conditioned by its pace of execution and the percentage of allocated expenditure that reaches the production sector. The temporary displacement of outstanding RTRP expenditure from one year to the next will not have a direct impact on the balance of the annual accounts, as indicated above, but it will have an indirect impact due to the effect on economic growth.

TABLE 16. DISTRIBUTION OF 2022 RTRP IN NATIONAL ACCOUNTING. AIREF FORECASTS (% GDP)

Distribution of the RTRP in 2022 (%GDP)	Total GG	CG	SSFs	ARs	LGs
NON-FINANCIAL REVENUE	**2.0**	**2.0**	**0.1**	**0.8**	**0.2**
CURRENT REVENUE	**0.2**	**0.2**	**0.1**	**0.2**	**0.0**
Allocated social contributions					
Current transfers between GG sub-sectors			0.1	0.2	0.0
Current international cooperation	0.2	0.2			0.0
Non-life insurance compensation					
Other current transfers					
CAPITAL REVENUE	**1.7**	**1.7**	**0.0**	**0.6**	**0.2**
Capital transfers between GG sub-sectors				0.6	0.2
Investment support	1.7	1.7			
NON-FINANCIAL EXPENDITURE	**2.0**	**2.0**	**0.1**	**0.8**	**0.2**
CURRENT EXPENDITURE	**0.2**	**0.2**	**0.1**	**0.2**	**0.0**
Compensation of employees	0.0			0.0	0.0
Intermediate Consumption	0.1	0.0		0.0	0.0
Social benefits other than social transfers in kind	0.0		0.0	0.0	
Social transfers in kind: production acquired on the market	0.1			0.1	
Current transfers between GG sub-sectors		0.2	0.0		
Other current transfers	0.1	0.0		0.0	
CAPITAL EXPENDITURE	**1.7**	**1.7**	**0.0**	**0.6**	**0.2**
Gross fixed capital formation	0.7	0.3		0.3	0.1
Capital transfers between GG sub-sectors		0.8		0.1	
Investment support	1.0	0.6		0.3	0.1

Source: AIReF estimates in national accounting terms

However, the structural and transformative nature of the projects is more relevant than the time when the RTRP is executed. The RTRP has been designed to bring forward execution of investments and reforms, with a major volume of expenditure concentrated in the initial years with the aim of boosting the economic recovery. The delay in the execution of the RTRP merely temporarily shifts the impact on GDP to the following years. However, what is truly relevant for GDP growth is the execution of projects that have a real structural and transformative effect on the economy.

Finally, AIReF considers that the RTRP will have an impact on the deficit in the medium term. As AIReF has indicated in previous reports, some investments set out in the RTRP might become permanent and some reforms might lead to increases in expenditure in the future (such as the pension updates in line with

the CPI, the conversion of ERTEs into structural mechanisms, the extension of health services or jobs in education) and/or generate savings (this would be the case of the spending review processes, the mechanisms to enforce the legal retirement age and the reform of the tax system). Although the net effect that may result from a combination of these elements is still unknown, the RTRP will have a very significant impact on the public accounts.

BOX 1. RECORDING OF THE REVENUE AND EXPENDITURE OF THE RECOVERY, TRANSFORMATION AND RESILIENCE PLAN (RTRP).

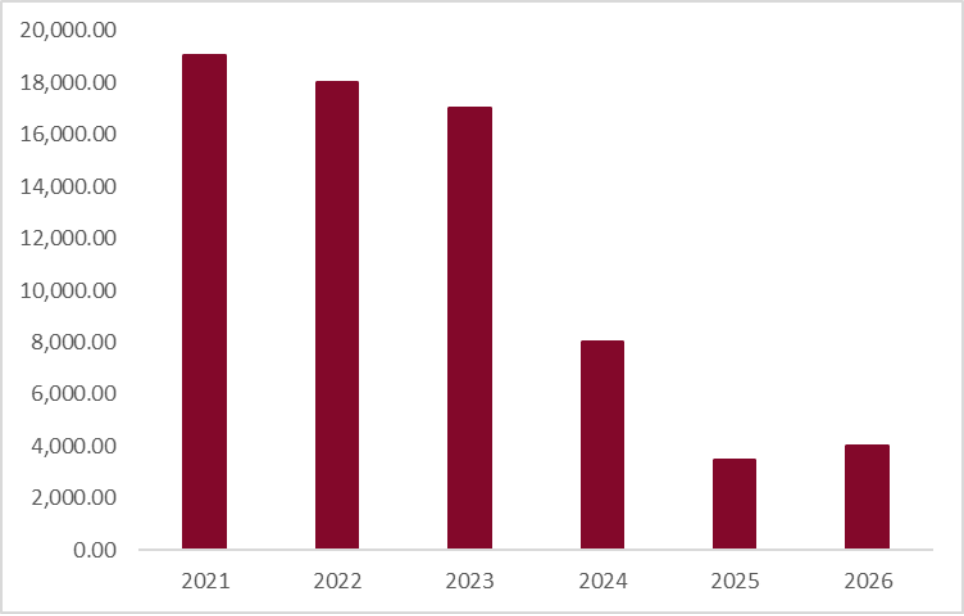
The revenue and expenditure of the RTRP are treated differently in national accounts and budgetary accounts:

In budgetary terms

Expenditure is recorded at the time it is incurred, even when referring to the expenditure transfers to other GG sub-sectors.

Revenue is recorded when the disbursements provided for in the approved calendar are received. Currently, the calendar has nine payments scheduled (a pre-financing payment followed by eight disbursements) over 2021-2026. These payments are not associated with execution of the expenditure set out in the RTRP, but with compliance with previously agreed milestones and targets that do not need to entail the realisation of expenditure at that time (for milestones, for example, it is the approval of a regulation). For 2021, it is expected that €19.04bn will be received, of which €9.04bn corresponds to the pre-financing payment that was received on August 17th and the remaining €10bn corresponds to the disbursement that is expected to be received in December. For 2022, the second disbursement of €12bn is scheduled for June, while the third disbursement of €6bn is scheduled for December. Except in the case of the pre-financing payment, which was obtained as a result of approval of the RTRP on July 13th, the agreed milestones and targets will need to be met in order to receive the disbursements.

FIGURE. CALENDAR OF DISBURSEMENTS FROM RECOVERY AND RESILIENCE FUNDS (€M)



Source: European Union

In national accounting terms

Expenditure is only deemed to be executed when it reaches its final destination i.e. when the allocated expenditure is made. We can divide the RTRP expenses according to the recipient as follows:

(a) Allocated expenditure: where the recipients of the transfers and support granted are private or public units, although the latter are not classified as public authorities.

(b) Financial advances: when the recipient of the transfers made by one public authority is another public authority.

In the former case, the allocated expenditure is recorded as an expense in national accounting. In the second, the expenditure is treated as a financial advance and, therefore, is not recorded in national accounts until the recipient public authority executes the actions and effectively makes the allocated expenditure.

Revenue is independent of the disbursements received. They are only recorded as the RTRP expense that is considered allocated is executed. In this case, the entry is automatic and for the same amount. In the case of a financial advance, until the receiving public authority makes the allocated expenditure, the revenue for the same amount will not be recorded in the national accounts.

Fiscal neutrality:

Unlike budgetary accounting where the management of the RTRP may result in a budget deficit or surplus depending on whether the disbursements received are smaller or larger than the expenditure made, in national accounting, the RTRP has a neutral effect, i.e., it has no impact on the balance of the annual accounts of the General Government.

On the one hand, as indicated above, revenue in national accounts is equal to the amount of expenditure incurred as allocated expenditure.

On the other hand, in the event that the public authority that makes the expenditure has received the funds as a financial advance from another authority, the adjustment to equal the revenue to the allocated expenditure takes place in the authority receiving the funds (adjustment of the revenue received to the allocated expenditure) and, for the same amount, in the authority issuing the transfer of the funds (adjustment of the transferred expenditure).

FIGURE. RTRP REVENUE AND EXPENDITURE FORECAST IN THE GSB AND ESTIMATED BY AIREF IN NATIONAL ACCOUNTING (€M). 2021

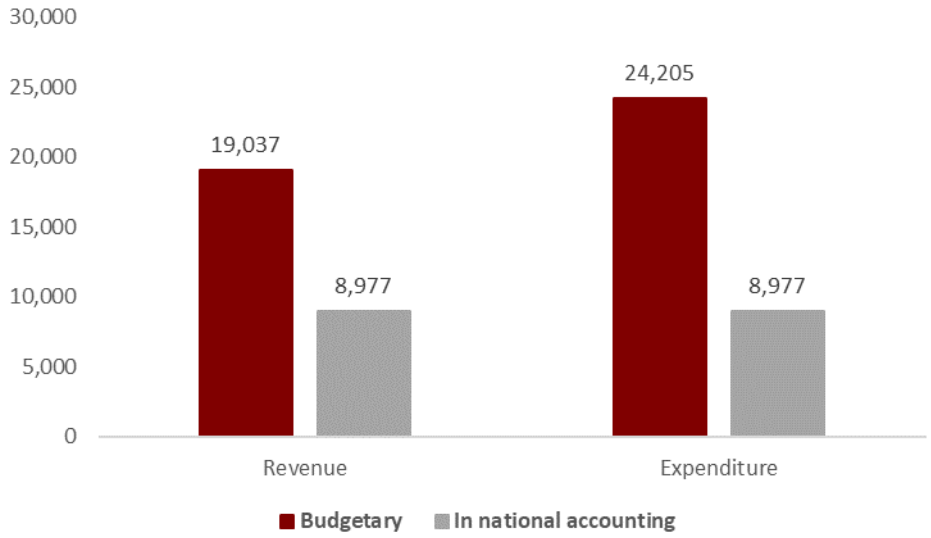
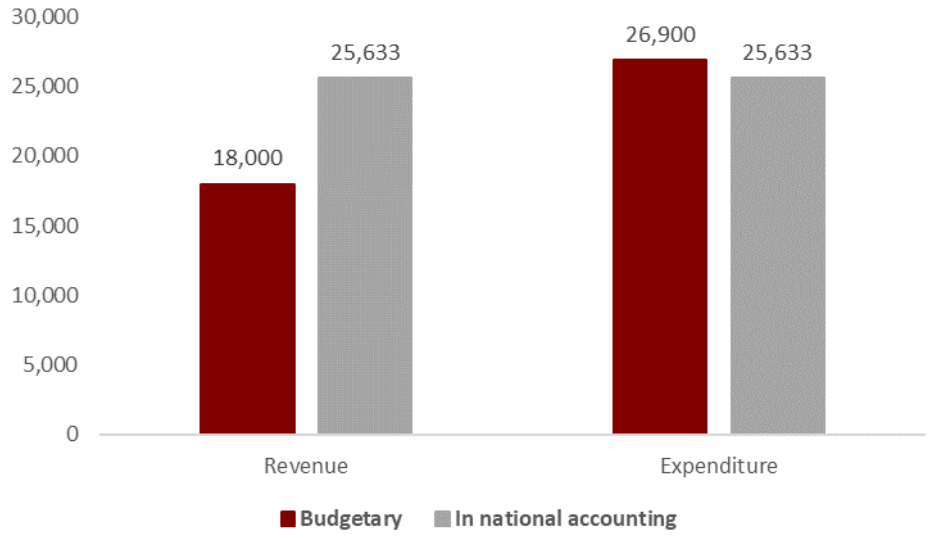


FIGURE. RTRP REVENUE AND EXPENDITURE FORECAST IN THE GSB AND ESTIMATED BY AIREF IN NATIONAL ACCOUNTING (€M). 2022



Source: GSB, European Union and AIReF estimates in national accounting terms

Accordingly, neutrality is ensured in the annual accounts of each and every one of the General Government sub-sectors involved in the execution of these funds.

4.7.2 Analysis of REACT-EU

Execution of REACT-EU will result in a higher deficit of 0.2 points of GDP in 2021 and a lower deficit of almost 0.2 points in 2022. These funds provide for the financing, among other actions, of measures to mitigate the effects of the pandemic in the fields of health, education, social services and support to companies. They are also integrated into the 2014-2020 operational programmes of the ERDF and the European Social Fund (ESF). The same principles of recognition in national accounts therefore apply as for the traditional ERDF and ESF. Expenditure is recognised when incurred, while revenue is recognised at the time of its accrual, which is deemed to occur when the expenditure is certified for reimbursement. This leads to timing mismatches between the implementation of the expenditure and the recognition of the revenue.

Execution of the expenditure associated with REACT-EU in 2021 will be around 70% of the total funds allocated to that year. Spain has been allocated a total of €12.44bn in REACT-EU funds, of which €10bn corresponds directly to the ARs and the rest to the CG. The CG plans to execute all its funds in 2021 to buy vaccines. In fact, the CG has already executed €931m in vaccines for 2021 at the end of August. For their part, the ARs were expected to execute 80% of their funds in 2021. However, the forecasts of the ARs show lower execution in 2021 - around 60% of the funds allocated - with the rest carried over to other years.

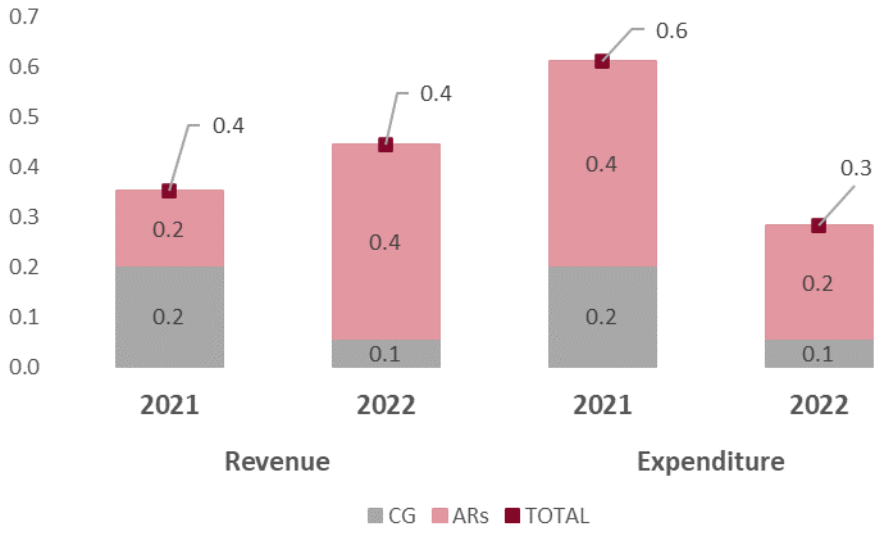
The revenue forecast for 2021 is lower than the forecast execution of expenditure in the same year. According to the REACT-EU Regulation, the ARs will be able to certify expenditure incurred from 1 February 2020 to 31 December 2023. This may lead to a time displacement effect of the expenditure certifications (expenditure that has been carried out in 2020 and that is certified in 2021 and also expenditure incurred in 2021 that is not certified until 2022) as is customarily the case with the ERDF and the ESF. As the revenue is not generated until the expenditure is certified, these displacements may result in increases or decreases in the deficit of the different years. In addition, it is possible to finance expenditure from REACT-EU funds that the AR had already planned in their 2021 budget or that AIReF had included in its forecasts as COVID measures. It is also possible to finance expenditure already executed in 2020. With regard to the CG, AIReF assumes that the revenue will be recorded in 2021, thus maintaining neutrality in the deficit of the funds allocated to it.

The revenue and expenditure associated with the REACT-EU funds that are not expected to be executed in 2021 are carried over to other years Although it was initially assumed that execution of the funds allocated directly to the ARs was 80% in 2021 and 20% in 2022, the forecasts show a more even distribution over the eligibility period, with most of the expenditure concentrated in 2021

and the greatest impact of the revenue in 2022. REACT-EU funds will therefore have a negative impact on the deficit in 2020 and 2021 and a positive impact in subsequent years.

In 2022, execution of the new REACT-EU funds for the CG and the part of the expenditure pending execution by the Autonomous Regions in 2021 is expected. In 2021, REACT-EU funds amounting to €2.44bn were allocated to the CG, for spending on vaccines and transfers to the ARs for health spending in relation to the pandemic. In 2022, expenditure on vaccines is expected to continue, with an allocation of €733m under REACT-EU and, in addition, an allocation of €440m under the 2022 GSB. The CG is expected to fully execute the expenditure financed by REACT-EU in both years. For their part, the ARs estimate that they will execute 30% of the total funds allocated, so that in the two-year period 2021-2022 about 90% of the funds will have been executed, leaving the remaining 10% for 2023.

FIGURE 74. ANNUAL DISTRIBUTION OF REACT-EU REVENUE AND EXPENDITURE. AIREF FORECASTS (% GDP)



Source: AIReF

4.8 Contingent liabilities and fiscal risks

Part of the fiscal risks linked to the pandemic remains in place in 2022. The pandemic has generated a series of fiscal risks in addition to those that are common to other years. These additional risks include those arising from the liquidity measures (ICO guarantees) adopted by the Government to preserve the production structure from the start of the crisis in 2020. No significant amounts of non-performing loans due to enforcement of these ICO guarantees have occurred to date or are expected for 2021. This is due to the short time elapsed and because in 2021 a series of measures was adopted to

avoid these NPLs, such as the creation of two COVID Lines of direct support for self-employed workers and companies, the extension of the grace periods and maturities of the loans with a public guarantee and other additional measures to make these loans more flexible. However, as noted by the Government in the 2021-2024 SPU, the guarantees and loans granted will have an impact on the deficit of 0.8% of GDP spread over 2022 and 2023, with €6bn (0.5% of GDP) corresponding to 2022.

In addition, the materialisation of the risks identified in the macroeconomic scenario would be passed on to the fiscal projections, which would affect the 2022 deficit. The main element of risk associated with the macroeconomic scenario continues to be the pandemic. On the one hand, the high level of vaccination of the population has allowed progress in the reactivation of the economy with the lifting of mobility and capacity restrictions, the recovery of national tourism and the gradual return of inbound tourism. But at the same time, the emergence of new outbreaks or variants involving new restrictions cannot be ruled out. Similarly, there is a risk that the impact of the RTRP on the production structure will be delayed by slow implementation. In addition, other risks related to the persistence of problems regarding bottlenecks in manufacturing or in logistics and the increase in raw material prices are also considered. 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 expenditure, with an impact on the deficit for the year.

In addition, there are fiscal risks for 2022 there do not originate in the macroeconomic scenario, which include those related to the enforcement of judgements. These are mainly risks that AIReF had already warned about in previous reports. Some of these risks have already materialised, as is the case of the appeals filed by the territorial administrations for the final 2017 VAT settlement as a result of the new VAT management system, which has led to the State allocating an expense in the 2022 GSB for an amount of €3.6bn. Other risks have also materialised, such as the one arising from the reversal of ACESA motorways and the dispute over the levy on hydroelectric production, for which uncertainty remains about the amount of their final impact on the public accounts. In the case of ACESA, an impact of €1.29bn is expected in 2021 due to the State's compensation. However, this could amount to an additional €4.7bn in the coming years due to discrepancies about the final amount claimed. As for the levy on hydroelectric production, the Government had estimated a preliminary impact of €500m, but finally around €1.6bn is expected in 2021. Lastly, the litigation on renewable energies remains open, for which the 2019 CSA General Account published in November 2020 provided for €9.63bn. However, the Government currently considers it unlikely that it will have to compensate the claimant companies. However, it is a risk that is still alive and which may affect the accounts for the coming years.

The situation of the energy sector is another fiscal risk for 2022 in the event that the adoption of measures by the Government becomes necessary again. The rise in electricity prices throughout 2021 has made it necessary for the Government to intervene in order to lower the electricity bill. The Government approved, first in June and then in September, a series of measures related to energy taxation with an impact estimated by AIReF of €1.06bn in 2021 and €633m in 2022. The magnitude of the current energy problem, which not only affects Spain but occurs globally, suggests that this situation may extend beyond 2021. Therefore, AIReF considers that in the current circumstances and given the prospect of no short-term solution being found (see Section 3.3.3 of this report), there is a risk that in 2022 the Government will have to implement new measures and/or extend those adopted in 2021 with the consequent increase in the 2022 deficit.

There are also other risks whose amount is unknown and for which no information is provided. Investments in defence modernisation programmes are already underway and involve a significant volume of expenditure each year with a major impact on the deficit. However, no information is published on the planning of these military deliveries and their impact on the public deficit. Neither is there any information on the possible impact of the risks assumed by public-private partnership contracts or loans granted by public authorities that might prove to be doubtful receivables.

Neither the Budgetary Plan 2022 nor the draft 2022 GSB contain full and up-to-date information on the contingent liabilities that may affect that year. The 2022 Budgetary Plan only incorporates the total value of the guarantees granted for 2020 by the General Government as a whole and by each sub-sector to non-GG units. It does not therefore include, for example, the guarantees of FROB (Fund for Orderly Banking Restructuring) or the Securitisation Fund of the electricity system deficit or the guaranteed debt of the European Financial Stability Fund. The total value of the guarantees for the GG amounts to €119.47bn in 2020, almost twice as much as in 2019, of which €118.48bn corresponds to the CG. The information regarding other contingent liabilities is partial and scattered. The last available information is that of the 2020 CSA Account, which contains a list of contingent liabilities at the end of that year, in which risks amounting to €3.7bn are quantified. However, some of these risks have already materialised, as is the case of the funds due to the VAT management system and the ACESA concession. Furthermore, this information is not complete, given that there are risks that, despite their quantitative importance, are not included as contingent liabilities in the annual accounts of the CSE, as is the case of the dispute over the levy on hydroelectric production (materialised in April 2021).

Therefore, more transparency would be desirable in relation to contingent liabilities that may affect the accounts for 2022. Both the budgetary plan and the draft GSB should have a section with complete, up-to-date and quantified

information on the main contingent liabilities that might have a significant impact in 2022. This information should also be completed with reference to the risks that have already materialised, their allocation over time and their final impact on the deficit so as to monitor these risks which, as shown in practice, have a very significant impact on the public accounts.

5. EVOLUTION AND SUSTAINABILITY OF THE PUBLIC DEBT

5.1 Recent evolution and short-term projections

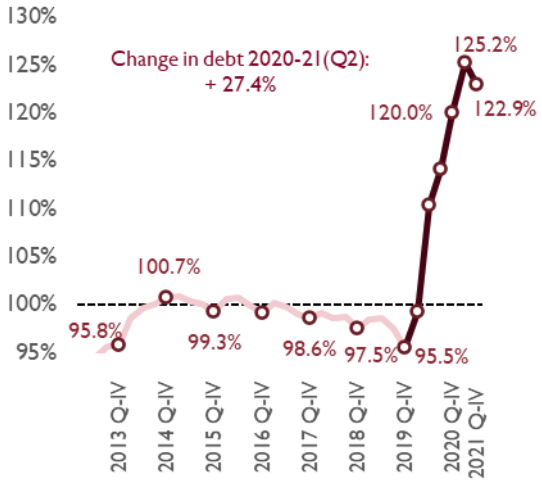
The COVID-19 crisis has caused a sharp increase in public debt, bringing the debt-to-GDP ratio to 122.9% at the end of the first half of 2021. More than half of the increase of 27.4 points in the debt ratio compared with the level at the end of 2019 is due to the high public deficit caused by the health crisis (15.2 points). The fall in economic growth - the denominator of the debt ratio - contributes approximately one quarter of the increase (6.6 points), as the negative contribution caused by the strong contraction in GDP in 2020 (10.4 points) begins to be offset by the economic recovery in 2021 (-3.8 points). In addition, the reclassification of the debt of the Sareb together with other stock-flow adjustments have added another 5.6 points to the ratio.

Most of the increase of 27.4 points in the debt ratio compared with the pre-pandemic level has originated in 2020 and in the Central Government sub-sector. The combination of the historic deficit recorded in 2020 and the sharp contraction in recorded economic activity caused an unprecedented increase in the debt ratio in the year the pandemic broke out (24.4 points). Although the effects of the crisis remain in force, its impact on the debt ratio has moderated, and, accordingly, in the first half of 2021 it has only increased

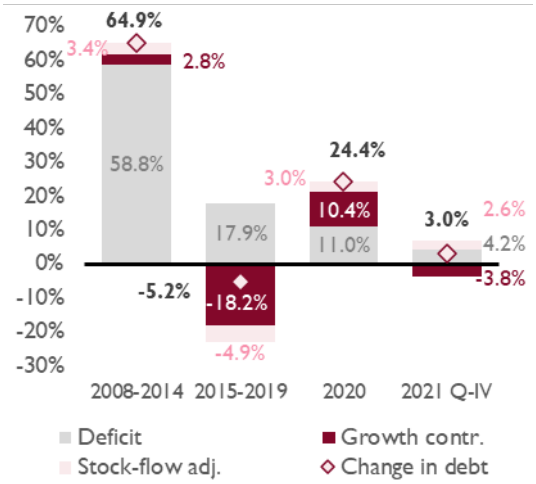
by 3 points. The reduction in the ratio recorded in the second quarter was not enough to offset the increase in the first quarter. By sub-sector, the Central Government and the Social Security Funds are responsible for almost 90% of the increase (24.1 points), with the rest being caused by the ARs as a whole (3.2 points). Local Governments have continued their deleveraging process, reducing their indebtedness in absolute terms - although in relation to GDP it increased slightly (0.1 points).

FIGURE 75. EVOLUTION OF DEBT AND CONTRIBUTIONS TO CHANGES

DEBT (% GDP), QUARTER-ON-QUARTER EVOLUTION



CONTRIBUTION TO THE CHANGE IN DEBT (% GDP)

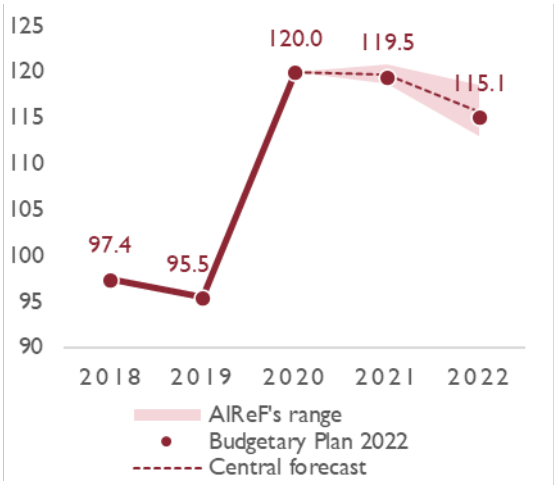


Source: Bank of Spain, INE and AIReF

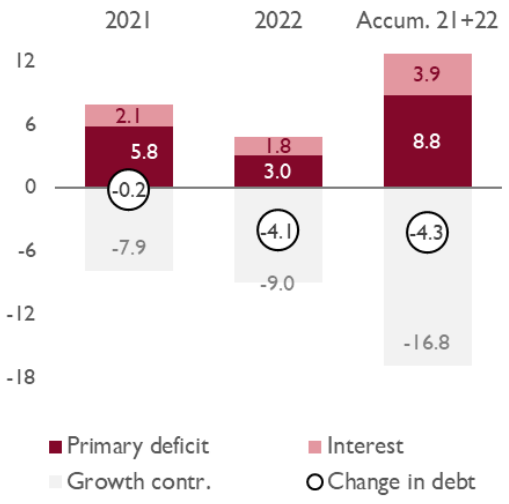
In the short term, AIReF estimates a reduction in the debt ratio of 4.3 points of GDP. In the first quarter of 2021, the debt ratio recorded a record high (125.2%), which, according to AIReF's forecasts, will be the ceiling after which a downward path will begin, which will place the ratio at 119.8% of GDP at the end of this year and 115.7% at the end of 2022, in line with the forecasts of 119.5% and 115.1% presented by the Government in the draft 2022 GSB and the draft Budgetary Plan, and those of the IMF's October WEO (120.2% and 116.4%). The reduction in the ratio will be mainly supported by economic growth and the reduction of the financial burden resulting from the favourable financing environment. This reduction will mainly take place in 2022, as in 2021 the positive contribution of the expected increase in GDP will be neutralised by the still persistent deficit.

FIGURE 76. SHORT-TERM FORECASTS

DEBT FORECAST BY AIREF AND THE DRAFT 2022 GSB



CONTRIBUTION TO THE CHANGE IN DEBT (% GDP), AIREF FORECAST



Source: Ministry of Economy and AIReF.

The debt of the ARs could reach 24.4% of GDP by the end of 2022. The debt-to-GDP ratio would fall in both 2021 and 2022, mainly as a result of the denominator effect, to stand at almost 3 points below the value recorded in 2020. However, the forecast level for the end of 2022 would be around half a point above that reached in 2019, thus moving even further away from the reference figure of 13%. In subsequent years, while total debt would continue to rise as a result of persistent deficits in the sub-sector, the ratio could continue to decline depending on the evolution of GDP.

A debt of around 1% of GDP is estimated for the LGs at year-end 2022. While, at the end of 2020, the debt-to-GDP ratio stood at 2%, it is expected to fall in 2021 and 2022, not only as a result of the reduction in the level of debt, due to the estimated surpluses in the sector, but also due to the strong expected growth in GDP.

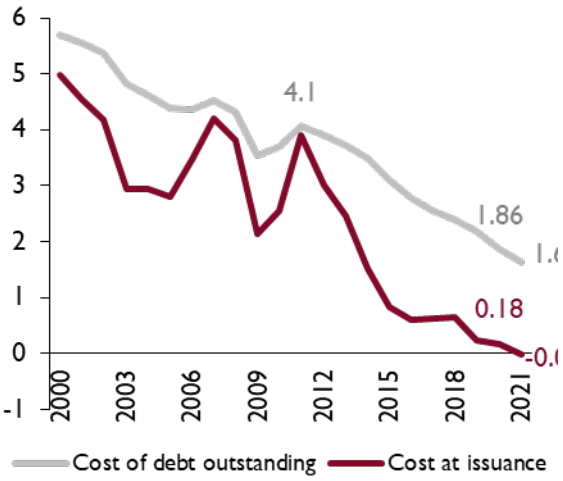
Despite higher borrowing needs, the cost of the debt has continued to fall, recording a new all-time low. The low yields recorded in all sovereign debt issuance maturities, close to all-time lows, have placed the average rate of new issues at practically zero. This has made it possible to maintain the path of reducing the average cost of financing, which has reached a new all-time low. Specifically, the average cost of new issues fell in September 2021 to -0.02%, from 0.18% at the end of 2020, which meant that the average cost of the entire State debt portfolio stood at 1.64% at that date, down from 1.86% at the end of 2020.

The low issuance rates have made it possible to reduce and stabilise the financial burden despite a marked increase in debt. Interest expenditure stood at 2.2% of GDP in mid-2021. This is the same value as at year-end 2020 although in absolute terms the accumulation of the last four quarters shows a

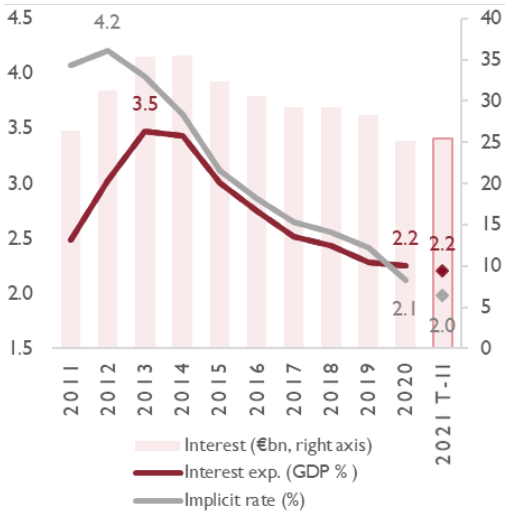
slight upturn (243 million euros). The implicit rate continued the downward trend started in 2012, standing at 2% in June.

FIGURE 77. DEBT INTEREST RATES AND FINANCIAL BURDEN

AVERAGE COST OF STATE DEBT (%)



FINANCIAL BURDEN AND IMPLICIT RATE OF THE DEBT



Source: Public Treasury, IGAE

In the short term, AIReF's models project the continuation of this trend of a slight reduction in the financial burden and in the average debt rates. The issuance of debt at interest rates similar to (or slightly higher than) those recorded throughout 2021 will allow for a further reduction in the average portfolio rate, stabilising interest expenditure at an absolute level despite the greater stock of debt, which will result in a slight reduction as a percentage of GDP.

5.2 Sustainability and risk analysis

The significant increase in the stock of public debt resulting from the crisis, on top of the previous high level, places the sustainability of public finances in the medium term in a position of greater vulnerability. The previous financial crisis triggered an increase of over 65 percentage points in General Government debt between 2008 and 2014, bringing it to a level of 100% of GDP. In the five years prior to the Covid crisis, there was a very insignificant reduction in the debt (5 points) despite the favourable tailwinds (sustained growth and a sharp fall in interest rates). The contraction in economic activity and the sharp increase in borrowing needs caused by the pandemic have brought the debt-to-GDP ratio to its highest value of the last hundred years, thus considerably increasing the vulnerability of public finances in the medium term.

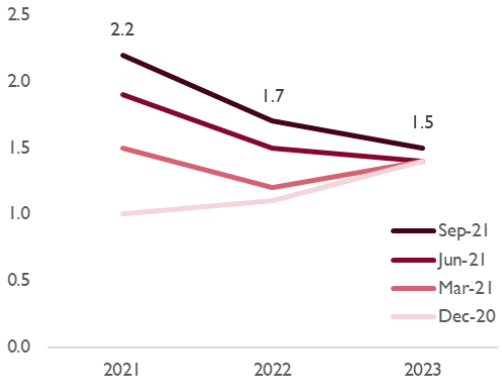
5.2.1 Financing conditions

Large-scale monetary policy support in response to the health crisis has helped to preserve very favourable financing conditions for government bonds, but the high level of debt results in future sustainability that is strongly linked to the policies of the European Central Bank. The emphatic and swift action by the monetary policy body has avoided the resurgence of any doubt about the sustainability of historically high debt levels accumulated following the pandemic. Thus, the Pandemic Emergency Purchase Programme (PEPP) has made it possible to maintain stability in European sovereign debt markets, with yields close to their historic lows, covering most of the extraordinary borrowing needs. The current favourable financing conditions, with interest rates at virtually their lower limit, may lead in the short term to marginal improvements in debt interest, but the high level of debt will in all likelihood result in a future increase in the financial burden and, therefore, in the sustainability risk. How this takes place, both in speed and intensity, will largely depend on the evolution of inflation and how monetary policy reacts to it.

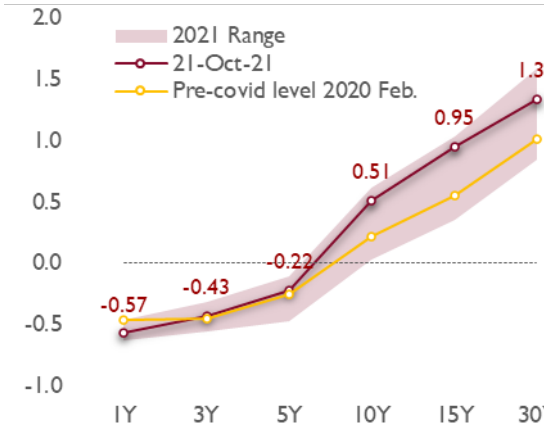
The strong upturn in inflation worldwide is generating an upward trend in long-term sovereign bond yields and some signalling of the withdrawal of stimulus programmes by central banks. After a beginning of the year with interest rates at historic lows and below pre-covid levels, the economic reactivation together with the rise in the price of oil and other raw materials has generated a price increase that has far exceeded the initial forecasts. This has placed upward pressure on long-term sovereign bond yields, although they remain at historically low levels. The ECB has substantially revised its inflation forecasts for 2021 and 2022, maintaining the outlook of more moderate inflation in the medium term. Inflation expectations continue to rise in the markets, placing the average for the coming years very close to the ECB's two percent target. This has led the ECB to moderate the pace of its asset purchases and indicate a certain progressive withdrawal of the stimulus measures over 2022.

FIGURE 78. INFLATION FORECASTS AND RATE CURVE IN 2021

ECB INFLATION FORECASTS (ANNUAL % CHANGE)



INTEREST RATE CURVE IN 2021 (%)



Source: ECB and Refinitiv

In the short term, a rise in sovereign debt interest rates would have a limited impact on the interest burden due to the high average maturity of the portfolio. However, a low interest rate environment will be essential to alleviate the fiscal effort in the medium and long term. The strategy of lengthening the average maturity of debt issues has generated some protection against possible interest rate hikes which, should they occur, would take eight years to be fully passed on to the average rate of the portfolio. Although in the short term the impact of a rate hike is small, in the medium and long term, it 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.

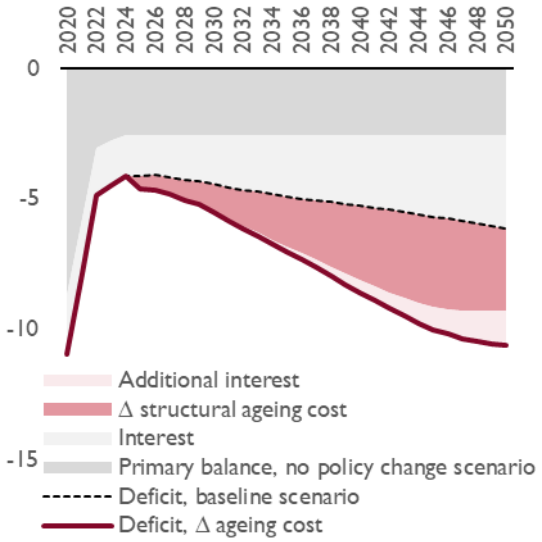
5.2.2 Long-term projections and sustainability

AIReF's projections show an unfavourable trend in the medium and long-term debt ratio under a no-policy change scenario The debt-to-GDP ratio will return to an upward path under the assumption of a no-policy change scenario and a constant primary structural deficit of two and a half points of GDP from 2024. The debt path increases significantly on adding the structural expenditure relating to an ageing population, projecting a debt ratio of 190% of GDP by the middle of the century.

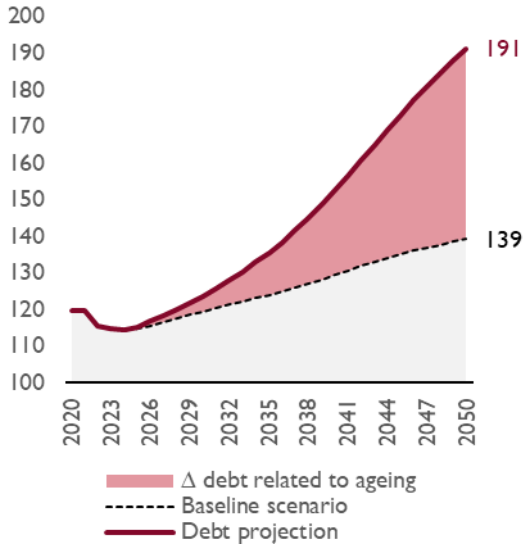
The negative interest rate differential over growth will not be sufficient to keep the debt ratio stable. The negative interest rate differential over growth, which will allow a positive "snowball" effect to be generated over the coming years, will not be sufficient to maintain the debt ratio stabilised if a primary deficit of over 2 points of GDP is maintained. The forecast of a lasting horizon of low interest rates allows the debt trend to stabilise with a total deficit of around 3.5%.

FIGURE 79. LONG-TERM DEBT PROJECTIONS

SCENARIOS FOR THE EVOLUTION OF THE PUBLIC DEFICIT (% GDP)



DEBT SIMULATION (% GDP) ACCORDING TO DEFICIT EVOLUTION SCENARIOS

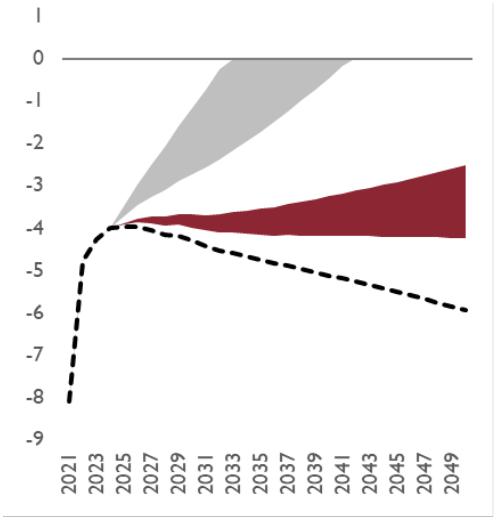


Source: AIReF

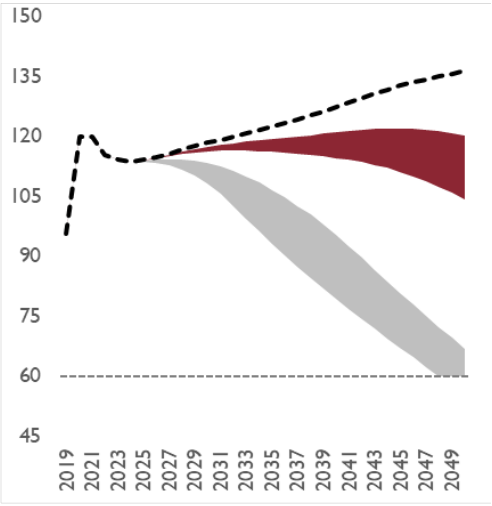
Beyond containing and stabilising the level of debt, the financial sustainability of the public accounts will require a path for reducing the debt ratio towards a much more stable position. A gradual and sustained reduction in the public deficit until budgetary equilibrium, as indicated by the Spanish legal system, will generate a path of sustained reduction of the debt ratio to more prudent levels. As shown by the simulations carried out by AIReF, achieving balanced public accounts in the next decade will require an annual structural fiscal adjustment of between 0.25 and 0.5 points in a period of between 8 and 16 years. This would reduce the debt ratio to between 80 and 95 percent of GDP by 2040. The absence of consolidation will result in an increasing path for the debt ratio, while stabilisation of the debt ratio at current levels will require a permanent structural adjustment of between 0.05 and 0.1 points of GDP.

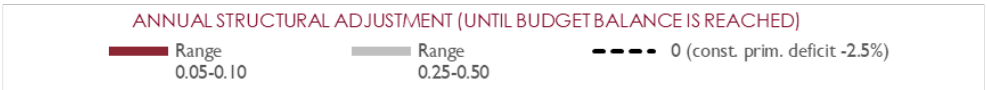
FIGURE 80. FISCAL CONSOLIDATION PATHS AND DEBT PROJECTIONS

SCENARIOS FOR THE EVOLUTION OF THE TOTAL DEFICIT (% GDP), ALTERNATIVE CONSOLIDATION PATHS



DEBT SIMULATION (% GDP) ACCORDING TO DEFICIT EVOLUTION SCENARIOS





Source: AIReF

The expectations of a lasting low interest rate environment offer greater room for manoeuvre when designing a medium-term consolidation strategy, making it possible to return to a balanced structural budget in a gradual manner that is not detrimental to growth. Achieving a balanced budget will be essential for generating the fiscal space necessary to cope with the debt pressure associated with the projected increase in pension expenditure and materialisation of future risks. This will make it possible to avoid maintaining the debt level above a threshold, which, according to economic literature, might be associated with a negative impact on growth.

6. RECOMMENDATIONS

6.1 New Recommendations

The outbreak of the pandemic has led to an unprecedented economic, health and social crisis. The response of the General Government has been to adopt an expansive fiscal policy to provide the necessary resources to fight the pandemic. As a result, the level of debt has skyrocketed to reach a level close to 120% of GDP in 2020, which increases the vulnerability of public finances.

There is currently a noticeable improvement in the health situation thanks to the level of vaccination achieved of about 80% of the population. At the same time, the normalisation of activity through the lifting of mobility and capacity restrictions is enabling the economy to recover.

The improvement in the healthcare and economic situation is leading, in 2021, to a progressive withdrawal of the measures adopted to mitigate the effects of the COVID crisis and a recovery in tax revenue to pre-pandemic levels. This generates fiscal spaces that would allow the deficit to be progressively reduced without the need to undertake specific fiscal consolidation processes. This trend might become more pronounced in 2022 as the economic recovery takes hold and healthcare problems subside.

This generation of fiscal space may be faster than envisaged in the reference rates, as is happening in 2021. Therefore, in the absence of fiscal rules and a medium-term strategy, there is a risk that the different General Government sub-sectors will have incentives to replace temporary measures with structural increases in expenditure without having a permanent source of funding. These incentives to increase structural expenditure could also be amplified by the expectation or the need to position themselves for a possible increase in revenue, either through modification of the transfers between sub-sectors and/or the financing system as a consequence of the tax reform provided for in the RTRP.

The result of this process would be a greater structural deficit of the General Government in a context of high public debt.

Therefore, **AIReF recommends that**:

1. ***The General Government adopt the necessary measures to prevent the fiscal space left by the withdrawal of the measures to combat COVID and the positive evolution of revenue being used to carry out structural expenditure that does not have a permanent source of funding.***

The Budgetary Plan is an essential document within the budget cycle for the analysis of the fiscal and economic policy of European Union countries. Its relevance stems from the fact that it collects information on the main lines of the budgets of all tiers of government in an integrated manner in national accounting terms. However, its content in 2022 is insufficient to carry out this analysis and verify consistency with the budgets of the different GG sub-sectors. On the one hand, the information on the evolution of the revenue and expenditure of the GG does not include the impact of the Next Generation EU funds, so it is not possible to analyse the impact of the REACT-EU and RTRP funds. This is even more important in the case of the REACT-EU funds insofar as, although they are deficit-neutral over the entire period they apply, they have a different impact in each year.

In addition, the Budgetary Plan does not contain a breakdown of the national accounting headings by sub-sector, which makes it difficult to analyse them and their consistency with the budgets of each tier of government. As AIReF pointed out in its Opinion on Fiscal Transparency in the General Government, these weaknesses in the content of the milestones that make up the budgetary process lead to their fragmentation and lack of consistency.

Finally, the Budgetary Plan should include all the measures that governments intend to implement during the period the Plan is in force. On this point, the integration of the Budgetary Plan and, in this case, the reforms of the RTRP that may have a direct or indirect impact on the public accounts is once again

sorely lacking, as is the case of the pension reform and the labour reform. Along the same lines, the Budgetary Plan does not include some measures already announced by the Government, such as the amendments proposed to the Minimum Living Income.

Therefore, **AIReF recommends that**:

2. ***The Budgetary Plan should incorporate all the measures planned by the Government and the impact of the REACT-EU and RTRP funds on GG revenue and expenditure, as well as a breakdown by sub-sector in national accounting terms.***

6.2 Repeated recommendations

AIReF has recommended that the Government should establish a medium-term fiscal strategy to provide realistic and credible guidance and ensure the financial sustainability of the General Government. However, the Ministry of Finance and Civil Service considers that the circumstances are not optimal for preparing this strategy as it is first necessary to determine the damage from the pandemic and wait until there is less uncertainty. The Ministry of Finance and Civil Service adds that uncertainty should not be increased by proposing possible measures for contingent scenarios, which it considers will undoubtedly influence expectations and the behaviour of the general public and economic and social agents.

For these reasons, the Government has not submitted the rebalancing plan referred to in Articles 11.3, 13.3 and 22 of the Organic Law on Budgetary Stability and Financial Stability. However, it points out that its firm commitment to stability is reflected in the fiscal and economic strategy of the Stability Programme Update (SPU) presented last April, with a downward path of the deficit to 3.2% of GDP in 2024 and with the approval, in July, of the State's non-financial expenditure limit for 2022, which is in line with this consolidation strategy.

As AIReF pointed out in its report, the SPU is an incomplete approximation to the fiscal strategy. On the one hand, the time horizon of the SPU is insufficient from the point of view of sustainability. On the other hand, only the macroeconomic outlook on which the fiscal forecasts of the SPU are based reflects the impact of the RTRP, but it does not include the fiscal path with the revenue and expenditure resulting directly from the RTRP on the grounds of fiscal neutrality. This entails avoiding an analysis and quantification of the impact of its investments and significant reforms both on potential growth and on the structural deficit.

AIReF considers it necessary for the Government to design the fiscal strategy, which involves setting medium-term objectives and targets and, at the same time, providing actions and fiscal margins to achieve them. This planning does not necessarily mean making cuts at the present time, but rather providing the means for a gradual consolidation as the economic recovery takes hold. In aggregate terms, it is necessary to lay down a fiscal policy that helps to recover pre-crisis activity levels and drive the future growth of the economy. At the same time, the sustainability of public finances requires reducing public debt to less vulnerable levels. This involves reducing the structural deficit that already existed before the crisis, and facing future challenges such as an ageing population. Although the implementation of the RTRP might help to reconcile both objectives, fitting all of these factors together requires a realistic and credible medium-term fiscal strategy.

Furthermore, the plan should be flexible with the ability to revise it depending on the circumstances that arise. The very existence of planning, which sets targets and allows for informed decision-making, is what provides certainty to economic agents and allows for greater control of budgetary activity. From AIReF's point of view, these revisions would in no case generate mistrust, unease or confusion as they would be perfectly integrated and planned for in the budget cycle, as is, in fact, the usual case.

For this reason, AIReF **reiterates its recommendation to the Government:**

1. ***That it should establish a national medium-term fiscal strategy that will act as fiscal guidance and will realistically and credibly ensure the financial sustainability of the General Government. This requires:***
    - ***The support of all tiers of government, considering their fiscal realities in terms of revenue and powers, in order to ensure appropriate coordination and co-responsibility.***
    - ***Specifying the fiscal targets and milestone schedules.***
    - ***Including a sufficiently long time horizon to place debt on a path that will reduce its level of vulnerability.***
    - ***Integrating the macroeconomic and fiscal implications of the investments and reforms set out in the RTRP.***
    - ***Basing the strategy on realistic macroeconomic and fiscal forecasts.***
    - ***Including measures for contingency scenarios.***

6.3 Live recommendations[35]

In its report on the draft GSB for 2017, AIReF first alerted that no information had been included relating to national accounting adjustments, which made it impossible to determine whether the budget was presented in line with the set target and the Ministry of Finance and Civil Service was recommended to urgently include information relating to said adjustments. This recommendation was subsequently repeated in the respective reports on the draft GSBs for 2018, 2019 and 2021, which were presented in the same terms.

In its reply, the Ministry of Finance and Civil Service argues that the adjustments are published in line with EU legislation in the EDP (Excessive Deficit Protocol), which are made every six months.

AIReF considers that it is not sufficient for national accounting adjustments to be published in EDP notifications, as these reflect adjustments in the implementation of revenue and expenditure, but not the adjustments forecast in the initial budget, which is when the GSB is drawn up and approved. These adjustments during execution do not allow for the reconciliation of the approved budgets with the stability target. Nor do they make it possible to see from the start the forecasts of the adjustments so as to allow them to be properly overseen, bearing in mind that the national accounting adjustments are a factor of possible deviation with regard to the deficit target.

As indicated in this report (see section on Non-financial expenditure limit), since the GSB does not include the accounting adjustments that would allow reconciliation of the budgetary balance with the deficit in national accounting terms, these adjustments have gone from having a fairly insignificant impact to having a notable impact on the deviation from the deficit target. In addition to this is the increase in the amount of the national accounting adjustments due to the existence of the RTRP funds, as a consequence of the adjustments necessary to record the RTRP revenue and expenditure in the national accounts.

Therefore, as the draft 2022 GSB once again fails to include national accounting adjustments, AIReF insists that these adjustments be made transparent and included in the GSB. In addition to being a legal obligation

[35] This section sets out recommendations made in previous reports which, even though the Ministry of Finance has explained the reasons why it deviates from compliance with the recommendations, AIReF considers them important for achieving the effectiveness and credibility of fiscal rules and a robust fiscal framework, which it believes is not guaranteed by the usual system and practices. It therefore considers that these recommendations remain in force. They are "live recommendations" and it urges the Ministry of Finance to comply with them. Should this not be the case, it is not necessary to once again explain the reasons for deviating from them, unless they are no longer the same.

(Articles 6 and 27 of the Organic Law on Budgetary Stability and Financial Sustainability), this is essential for determining whether the budget is in line with the deficit target (or a reference as is the case of the 2022 GSB) and to prevent deviations from the target through the route of national accounting adjustments.

For this reason, **AIReF recommends:**

1. ***That the following be included in the draft GSB:***
   a. information on national accounting adjustments to reconcile the budget balance with net borrowing or lending in terms of ESA 2010.

   b. information on those entities which, although not of a public nature, are included for the purposes of ESA 2010 in the Central Government sub-sector and on the balance resulting from the net lending or borrowing of Central Government bodies.
2. ***That the draft GSB for next year should include an initial budget in national accounting terms for the Central Government and the Social Security Funds***

The president of AIReF

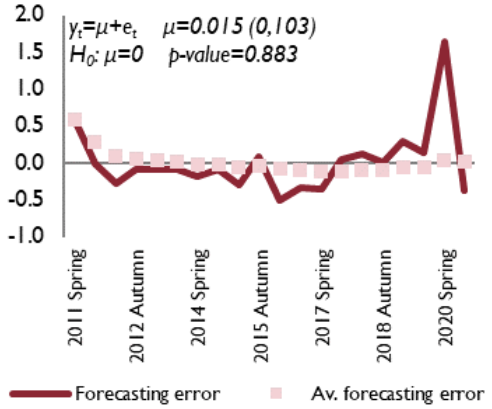
Cristina Herrero Sánchez

ANEXX I. EX-POST ANALYSIS

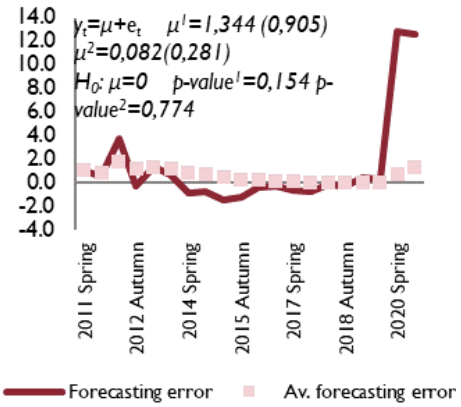
ANEXO I.1 FORECASTING ERROR AND AVERAGE ERROR[36]

Gross Domestic Product

Year in course

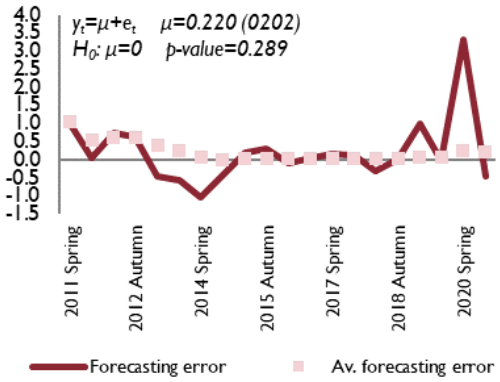


Following year

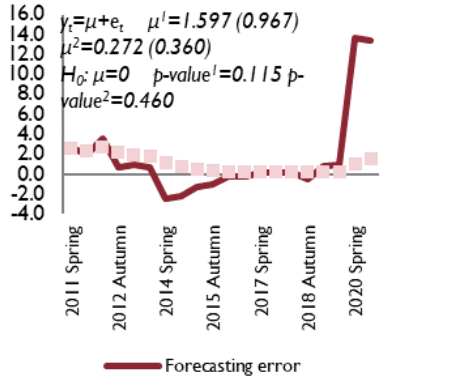


Private consumption

Year in course



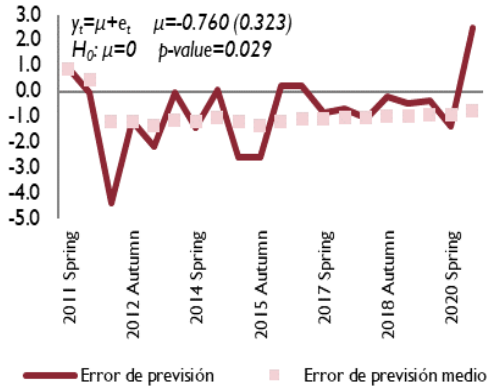
Following year



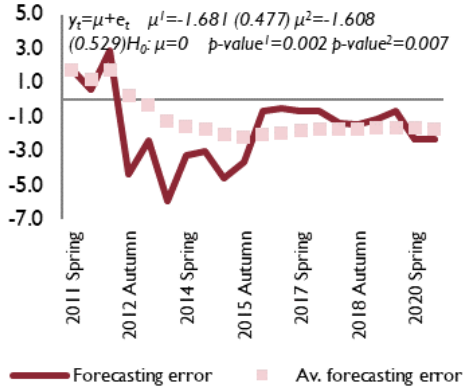
[36] The estimates for the following year, given the errors are strongly conditioned by the outbreak of the pandemic whose impact on the economy was impossible to predict, include results of the regression of forecasting errors taking a sample that excludes the 2020 forecasts made in 2019.

Public consumption

Year in course

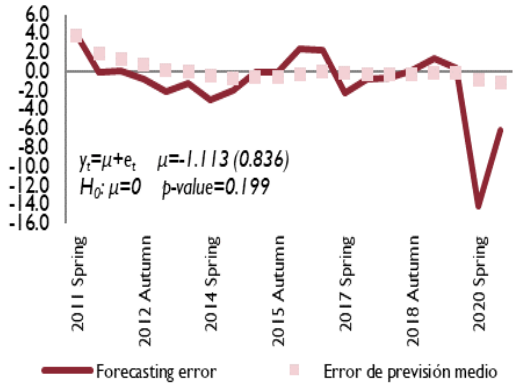


Following year

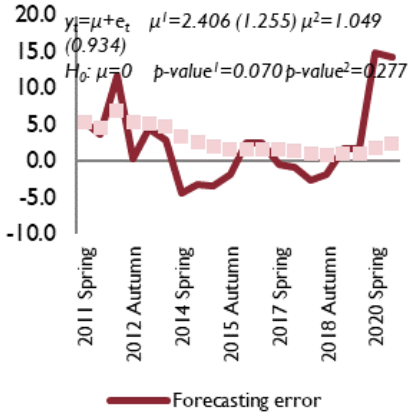


Gross fixed capital formation

Year in course

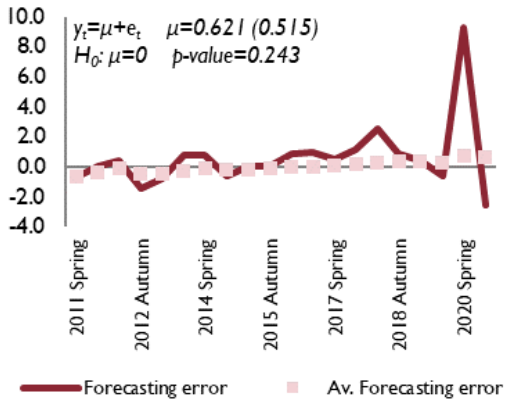


Following year

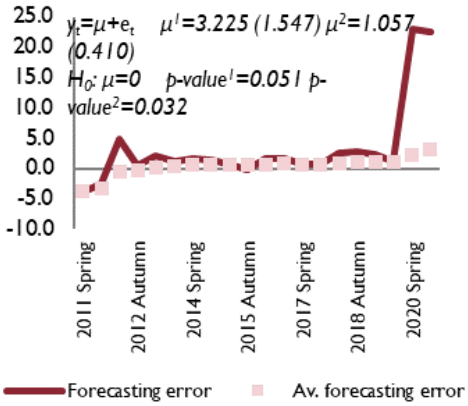


Exports

Year in course

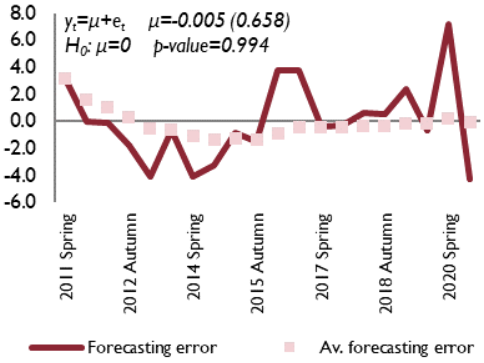


Following year

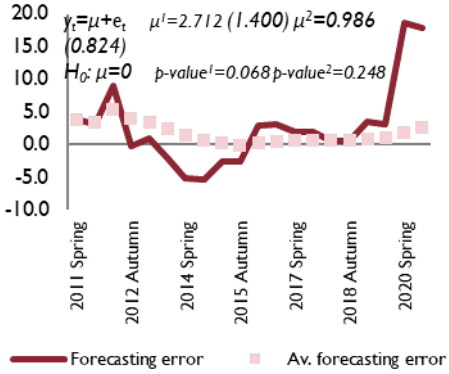


Imports

Year in course

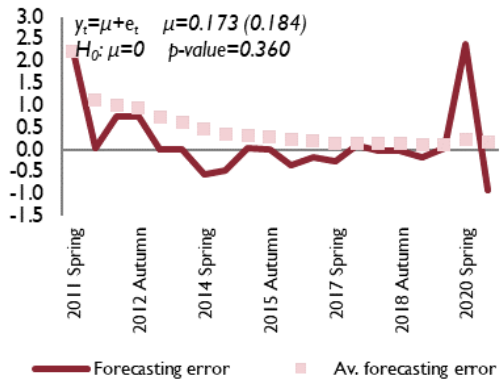


Following year

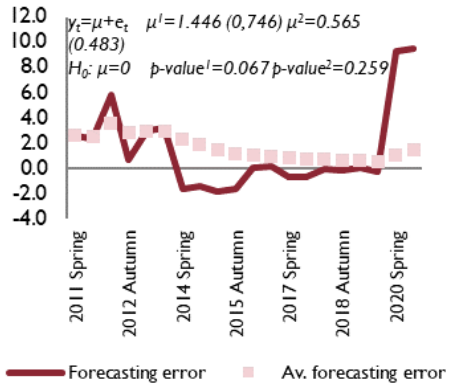


Employment

Year in course

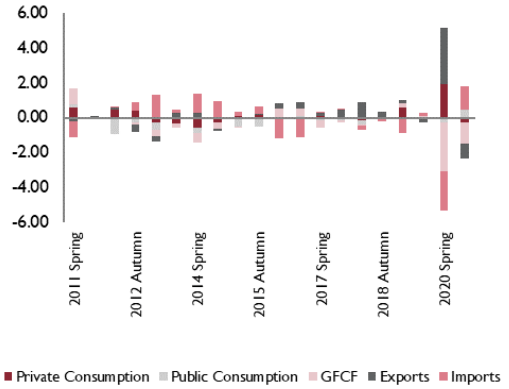


Following year

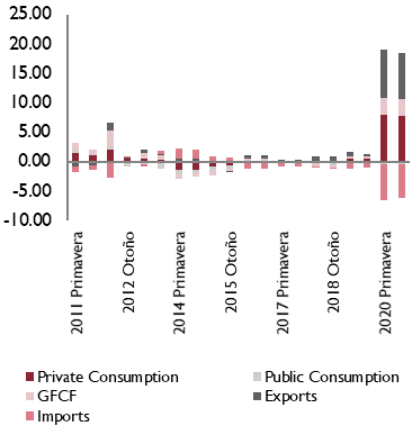


CONTRIBUTIONS OF THE COMPONENTS TO THE ESTIMATION ERROR OF GDP

Year in course



Following year



ANEXO I.2 BIAS, TEST OF BIAS SIGNIFICANCE AND TEST OF BIAS EQUALITY

		Year in course		Following Year[37]		Following Year[38]	
Gross Domestic Product		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	0.0152 [0.8834]		1.3444 [0.1537]		0.0819 [0.7744]	
	Bank of Spain	-0.0625 [0.4829]	1.7589 [0.0947]	1.4372 [0.1475]	-0.4281 [0.6736]	0.1194 [0.7145]	-0.4665 [0.6472]
	European Commission	-0.1550 [0.2168]	2.4260 [0.0254]	1.3636 [0.1661]	-0.0268 [0.9789]	0.0488 [0.8764]	-0.1082 [0.9152]
	FUNCAS Panel	-0.0960 [0.3819]	2.0293 [0.0567]	1.3427 [0.1769]	0.0880 [0.9308]	0.0025 [0.9932]	0.1043 [0.9182]
Private Consumption		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	0.2201 [0.2893]		1.5968 [0.1152]		0.2720 [0.4600]	
	Bank of Spain	0.1430 [0.4411]	0.8006 [0.4333]	1.4431 [0.1888]	0.5678 [0.5772]	0.0082 [0.9848]	0.6417 [0.5301]
	European Commission	-0.0938 [0.6673]	1.5623 [0.1356]	1.3899 [0.2411]	0.0617 [0.9516]	-0.2034 [0.6025]	-0.0656 [0.9486]
	FUNCAS Panel	0.0167 [0.9218]	1.4003 [0.1775]	1.5508 [0.1577]	-0.0590 [0.9536]	0.1069 [0.7883]	0.1512 [0.8817]
Public Consumption		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	-0.7601 [0.0294]		-1.6806 [0.0023]		-1.6078 [0.0074]	
	Bank of Spain	-0.7576 [0.0213]	-0.0115 [0.9909]	-1.0544 [0.0320]	-1.7726 [0.0932]	-0.8802 [0.0918]	-1.8425 [0.0840]

[37] Results based on forecasts for the period 2011-2020.
[38] Results based on the forecasts for the period 2011-2019, i.e., excluding 2020 because of the onset of COVID-19, an atypical year that might distort the results of the measures and tests.

	European Commission	-0.7018 [0.0510]	-0.5780 [0.5704]	-1.0396 [0.0099]	-2.4251 [0.0275]	-0.9001 [0.0362]	-2.3978 [0.0310]
	FUNCAS Panel	-0.5823 [0.0516]	-0.9094 [0.3745]	-1.0856 [0.0195]	-2.3772 [0.0287]	-0.9489 [0.0572]	-2.3762 [0.0303]
Gross Fixed Capital Formation		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	-1.1126 [0.1988]		2.4060 [0.0705]		1.0487 [0.2773]	
	Bank of Spain	-1.4494 [0.0871]	1.2373 [0.2311]	3.0597 [0.0452]	-1.1922 [0.2487]	1.6590 [0.1765]	-1.1369 [0.2723]
	European Commission	-1.4192 [0.0524]	0.1220 [0.9043]	1.8343 [0.2016]	-0.3376 [0.7400]	0.2433 [0.8032]	-0.4874 [0.6335]
	FUNCAS Panel	-1.0890 [0.0786]	-0.0671 [0.9472]	2.0668 [0.1457]	0.3378 [0.7394]	0.5831 [0.5708]	0.3484 [0.7321]
Exports		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	0.6211 [0.2430]		3.2252 [0.0508]		1.0568 [0.0319]	
	Bank of Spain	0.1423 [0.5922]	1.0591 [0.3028]	3.4353 [0.0535]	0.6858 [0.5016]	1.0753 [0.0184]	1.0842 [0.2943]
	European Commission	0.2301 [0.3921]	0.8945 [0.3829]	3.8471 [0.0427]	0.1456 [0.8860]	1.3206 [0.0003]	0.1716 [0.8662]
	FUNCAS Panel	0.0258 [0.9063]	1.2580 [0.2236]	3.1807 [0.0649]	2.2742 [0.0354]	0.8794 [0.0343]	2.3083 [0.0347]
Imports		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	-0.0049 [0.9941]		2.7118 [0.0677]		0.9859 [0.2480]	
	Bank of Spain	-0.7144 [0.2610]	1.1579 [0.2613]	3.1879 [0.0661]	-0.9166 [0.3715]	1.2479 [0.2517]	-0.6619 [0.5175]
	European Commission	-0.9279 [0.1325]	1.0660 [0.3005]	2.6436 [0.1318]	-0.6766 [0.5083]	0.5591 [0.5749]	-0.6683 [0.5148]

	FUNCAS Panel	-0.7316 [0.2063]	1.0753 [0.2957]	2.6794 [0.1024]	-0.0652 [0.9487]	0.7963 [0.4238]	0.0464 [0.9635]
Employment		Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]	Bias [p-value]	T [p-value]
	Government	0.1728 [0.3599]		1.4464 [0.0675]		0.5648 [0.2588]	
	Bank of Spain	-0.4196 [0.2745]	1.5131 [0.1467]	1.3117 [0.1186]	0.2685 [0.7913]	0.4154 [0.4789]	0.0927 [0.9273]
	European Commission	-0.1199 [0.4316]	0.8702 [0.3956]	1.0730 [0.2089]	-0.0246 [0.9807]	0.0387 [0.9353]	-0.2368 [0.8163]
	FUNCAS Panel	0.0406 [0.7828]	0.8466 [0.4078]	1.1789 [0.1450]	0.8011 [0.4335]	0.2450 [0.6203]	0.6911 [0.4994]

ANEXO I.3 CLASSIFICATION OF ERRORS

		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020	
		Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn
Year in course	Gross Domestic Product	I	-	-	-	G	-	G	-	G	I	-	I	-	-	-	G	I	G	-	G
	Private Consumption	-	G	G	G	-	-	G	-	I	-	G	-	-	-	I	-	-	G	G	-
	Public Consumption	G	G	G	-	-	-	-	-	I	I	-	-	-	I	I	-	-	G	I	I
	Gross Fixed Capital Formation	G	-	-	G	-	-	-	G	G	G	I	I	I	-	G	G	-	-	G	-
	Exports	G	G	-	I	-	-	G	I	-	-	-	-	G	-	-	-	-	-	G	-
	Imports	I	G	-	G	-	G	-	-	-	-	I	I	-	-	-	I	-	I	G	-
	Employment	I	G	-	-	-	-	-	-	G	-	-	-	G	G	-	G	G	-	G	-
Following year	Gross Domestic Product		I	I	G	-	G	-	-	-	-	G	G	G	-	G	I	-	-	-	-
	Private Consumption		I	I	G	G	-	-	-	G	G	G	-	I	I	G	I	G	-	G	G
	Public Consumption		-	-	G	-	G	G	G	G	G	I	I	-	-	-	I	-	-	-	-
	Gross Fixed Capital Formation		G	I	G	G	G	-	G	-	G	I	-	-	-	I	I	I	-	-	-
	Exports		G	I	G	I	I	-	-	-	-	-	I	I	I	I	I	-	-	-	-
	Imports		I	-	G	I	G	G	-	-	-	-	-	I	I	-	-	-	-	-	-
	Employment		I	I	G	G	G	-	-	-	-	G	G	-	-	G	-	G	-	I	I

ANEXO I.4 PANEL'S INTERQUARTILE INTERVAL FORECASTING ERRORS FOR CLASSIFICATION

Gross Domestic Product

		Year in course										Following year									
		2016		2017		2018		2019		2020		2016		2017		2018		2019		2020	
		Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn	Spring	Autumn
OBSERVED		3.2	3.2	3.1	3.1	2.6	2.6	2.0	2.0	-10.8	-10.8	3.2	3.2	3.1	3.1	2.6	2.6	2.0	2.0	-10.8	-10.8
FORECAST	Government	2.7	**2.9**	2.7	3.1	2.7	**2.6**	**2.2**	**2.1**	-9.2	**-11.2**	**2.9**	**3.0**	**2.4**	2.3	**2.5**	**2.3**	2.4	2.3	1.9	1.8
FORECAST	Panel [average]	2.7	3.1	2.6	3.1	2.7	2.7	2.2	2.2	-9.5	-12.0	2.6	2.8	2.3	2.3	2.3	2.7	2.4	2.3	1.9	1.8
FORECAST	Panel [Quartile 1]	2.6	3.0	2.5	3.1	2.7	2.6	2.1	2.1	-10.4	-13.0	2.5	2.7	2.2	2.2	2.2	2.7	2.3	2.2	1.9	1.8
FORECAST	Panel [Quartile 3]	2.8	3.2	2.8	3.2	2.8	2.7	2.2	2.3	-8.5	-11.5	2.7	2.9	2.4	2.4	2.4	2.8	2.4	2.4	2.0	1.9
FORECASTING ERROR	Government	-0.499	-0.336	-0.345	0.048	0.118	0.018	0.289	0.150	1.639	-0.361	-0.382	-0.236	-0.613	-0.752	-0.123	-0.282	0.450	0.350	12.776	12.639
FORECASTING ERROR	Panel [average]	-0.522	-0.139	-0.426	0.093	0.153	0.098	0.222	0.256	1.327	-1.204	-0.654	-0.476	-0.733	-0.751	-0.294	0.132	0.422	0.353	12.763	12.678
FORECASTING ERROR	Panel [Quartile 1]	-0.636	-0.223	-0.552	0.048	0.118	0.032	0.153	0.196	0.439	-2.114	-0.736	-0.555	-0.809	-0.836	-0.370	0.110	0.350	0.272	12.717	12.614
FORECASTING ERROR	Panel [Quartile 3]	-0.436	-0.036	-0.269	0.116	0.218	0.118	0.250	0.350	2.367	-0.661	-0.490	-0.336	-0.625	-0.652	-0.220	0.206	0.450	0.450	12.836	12.765

Private Consumption	OBSERVED	3.2	3.2	2.4	2.4	2.3	2.3	0.9	0.9	-12.1	-12.1	3.2	3.2	2.4	2.4	2.3	2.3	0.9	0.9	-12.1	-12.1
	FORECAST Government	**3.2**	3.3	2.6	2.5	**2.0**	2.3	1.9	**0.9**	**-8.8**	-12.6	**2.9**	3.0	**2.6**	**2.6**	**2.4**	**1.8**	**1.8**	1.9	**1.6**	**1.2**
	FORECAST Panel [average]	2.9	3.3	2.5	2.5	2.3	2.3	2.0	1.7	-11.0	-13.8	2.6	2.9	2.3	2.4	2.1	2.3	1.9	1.8	1.8	1.5
	FORECAST Panel [Quartile 1]	2.9	3.2	2.4	2.5	2.2	2.2	1.9	1.5	-12.0	-15.0	2.3	2.7	2.1	2.1	1.9	2.2	1.8	1.7	1.6	1.4
	FORECAST Panel [Quartile 3]	3.0	3.4	2.6	2.6	2.4	2.3	2.1	1.8	-9.5	-12.6	2.9	3.0	2.5	2.5	2.3	2.4	2.0	2.1	1.9	1.7
	FORECASTING ERROR Government	-0.079	0.071	0.174	0.117	-0.294	0.006	1.015	-0.020	3.339	-0.461	-0.284	-0.229	0.177	0.217	0.116	-0.494	0.880	0.980	13.699	13.339
	FORECASTING ERROR Panel [average]	-0.283	0.095	0.107	0.165	0.016	-0.024	1.060	0.746	1.122	-1.668	-0.610	-0.334	-0.040	-0.023	-0.234	0.044	1.025	0.915	13.895	13.689
	FORECASTING ERROR Panel [Quartile 1]	-0.329	-0.008	-0.023	0.117	-0.113	-0.117	0.980	0.584	0.189	-2.861	-0.929	-0.529	-0.285	-0.283	-0.404	-0.092	0.892	0.780	13.739	13.539
	FORECASTING ERROR Panel [Quartile 3]	-0.229	0.171	0.244	0.217	0.106	0.006	1.173	0.900	2.672	-0.461	-0.329	-0.229	0.141	0.117	0.006	0.140	1.080	1.143	14.039	13.841
Public Consumption	OBSERVED	0.8	0.8	1.6	1.6	2.1	2.1	2.3	2.3	3.8	3.8	0.8	0.8	1.6	1.6	2.1	2.1	2.3	2.3	3.8	3.8
	FORECAST Government	1.0	1.0	0.8	**0.9**	**1.1**	1.9	1.9	**2.0**	**2.5**	**6.3**	**0.1**	**0.3**	0.9	0.9	0.7	**0.7**	1.2	1.7	1.5	1.5
	FORECAST Panel [average]	1.3	0.9	1.0	1.1	1.4	1.9	2.0	1.8	4.9	4.6	0.6	0.7	1.1	0.7	1.1	1.2	1.3	1.7	1.6	1.6
	FORECAST Panel [Quartile 1]	1.0	0.5	0.7	0.9	1.2	1.7	1.7	1.7	4.3	4.0	0.2	0.4	0.9	0.6	0.7	0.8	1.0	1.5	1.2	1.3
	FORECAST Panel [Quartile 3]	1.7	1.2	1.1	1.2	1.5	2.0	2.3	1.9	5.9	5.5	1.1	1.0	1.4	1.2	1.5	1.6	1.6	1.9	1.8	1.8
	FORECASTING ERROR Government	0.221	0.221	-0.816	-0.666	-1.027	-0.227	-0.446	-0.346	-1.336	2.464	-0.679	-0.479	-0.666	-0.666	-1.387	-1.427	-1.146	-0.646	-2.336	-2.336

		Panel [average]	0.482	0.077	-0.596	-0.492	-0.729	-0.265	-0.311	-0.507	1.075	0.774	-0.182	-0.057	-0.510	-0.901	-1.074	-0.973	-1.033	-0.668	-2.267	-2.244
		Panel [Quartile 1]	0.221	-0.241	-0.895	-0.641	-0.927	-0.427	-0.620	-0.646	0.419	0.164	-0.579	-0.379	-0.691	-0.939	-1.388	-1.316	-1.321	-0.896	-2.588	-2.496
		Panel [Quartile 3]	0.921	0.371	-0.453	-0.365	-0.583	-0.114	-0.046	-0.446	2.064	1.664	0.321	0.221	-0.141	-0.366	-0.640	-0.577	-0.784	-0.407	-2.058	-2.036
Gross Fixed Capital Formation		**OBSERVED**	3.1	3.1	5.0	5.0	5.3	5.3	2.7	2.7	-11.4	-11.4	3.1	3.1	5.0	5.0	5.3	5.3	2.7	2.7	-11.4	-11.4
	FORECAST	Government	**5.6**	**5.4**	**2.8**	4.2	**4.7**	**5.3**	4.0	3.1	**-25.5**	-17.5	**5.8**	5.6	4.6	4.2	**2.6**	**3.4**	**4.4**	4.4	3.5	3.0
	FORECAST	Panel [average]	4.8	4.2	3.3	4.2	4.3	4.7	3.9	3.4	-19.9	-18.0	5.1	5.4	4.3	4.0	3.5	4.1	3.8	4.3	3.4	3.2
	FORECAST	Panel [Quartile 1]	4.4	3.9	2.9	4.0	4.0	4.4	3.6	2.8	-24.4	-20.6	4.5	5.1	3.9	3.5	2.9	3.9	3.6	3.8	2.9	2.8
	FORECAST	Panel [Quartile 3]	5.0	4.4	3.7	4.4	4.6	5.0	4.3	4.0	-17.1	-15.5	5.6	5.7	4.9	4.8	4.0	4.5	4.1	4.6	3.7	3.6
	FORECASTING ERROR	Government	2.491	2.287	-2.194	-0.811	-0.565	0.035	1.384	0.446	-14.134	-6.134	2.637	2.487	-0.362	-0.811	-2.617	-1.865	1.746	1.746	14.876	14.366
	FORECASTING ERROR	Panel [average]	1.681	1.056	-1.749	-0.817	-0.983	-0.575	1.234	0.761	-8.489	-6.606	2.003	2.309	-0.709	-1.007	-1.813	-1.173	1.173	1.596	14.733	14.564
	FORECASTING ERROR	Panel [Quartile 1]	1.326	0.812	-2.111	-1.011	-1.304	-0.915	0.896	0.157	-12.999	-9.190	1.352	1.987	-1.156	-1.486	-2.369	-1.389	0.900	1.146	14.266	14.116
	FORECASTING ERROR	Panel [Quartile 3]	1.916	1.247	-1.266	-0.580	-0.711	-0.232	1.602	1.296	-5.736	-4.134	2.537	2.587	-0.101	-0.261	-1.278	-0.731	1.446	1.934	15.059	14.919
Exports		**OBSERVED**	4.4	4.4	5.0	5.0	2.3	2.3	2.3	2.3	-20.2	-20.2	4.4	4.4	5.0	5.0	2.3	2.3	2.3	2.3	-20.2	-20.2
	FORECAST	Government	5.3	5.4	**5.5**	6.2	4.8	3.2	2.7	1.7	**-10.9**	-22.7	6.0	**6.0**	**5.7**	**5.7**	**4.9**	**5.1**	4.6	3.4	2.8	2.3
	FORECAST	Panel [average]	4.9	5.6	4.5	6.2	4.4	2.8	2.6	1.6	-20.1	-21.6	5.8	5.3	4.8	4.7	4.2	4.9	4.3	3.6	2.8	2.4

		Panel [Quartile 1]	4.5	5.1	4.1	5.9	3.8	2.4	2.0	1.4	-24.9	-24.0	5.4	4.7	4.7	4.2	3.8	4.5	3.9	3.3	2.1	2.1
		Panel [Quartile 3]	5.3	5.7	4.7	6.4	4.9	3.4	3.1	1.9	-16.1	-19.7	6.1	5.9	5.2	4.9	4.8	5.0	4.8	4.2	3.5	2.7
	FORECASTING ERROR	Government	0.883	1.019	0.513	1.172	2.525	0.925	0.429	-0.583	9.280	-2.504	1.597	1.619	0.622	0.672	2.614	2.825	2.317	1.117	22.985	22.496
		Panel [average]	0.527	1.225	-0.535	1.142	2.108	0.557	0.318	-0.670	0.132	-1.437	1.415	0.967	-0.205	-0.340	1.908	2.597	2.022	1.308	22.978	22.589
		Panel [Quartile 1]	0.119	0.719	-0.928	0.872	1.483	0.075	-0.250	-0.883	-4.654	-3.804	1.019	0.319	-0.353	-0.827	1.559	2.225	1.596	0.967	22.334	22.246
		Panel [Quartile 3]	0.960	1.285	-0.328	1.372	2.625	1.095	0.767	-0.418	4.106	0.476	1.759	1.519	0.172	-0.169	2.525	2.700	2.468	1.948	23.721	22.902
Imports		**OBSERVED**	3.3	3.3	4.7	4.7	3.5	3.5	0.7	0.7	-15.8	-15.8	3.3	3.3	4.7	4.7	3.5	3.5	0.7	0.7	-15.8	-15.8
	FORECAST	Government	**7.0**	**7.0**	4.3	4.4	4.1	**4.0**	3.1	**0.1**	**-8.6**	-20.0	6.3	6.4	**6.7**	**6.7**	4.1	4.1	4.2	3.8	2.9	2.0
		Panel [average]	5.9	5.7	3.8	4.7	4.0	3.0	3.3	1.0	-21.5	-19.0	6.2	6.4	5.7	5.0	4.1	4.3	4.1	3.8	3.3	2.6
		Panel [Quartile 1]	5.4	5.3	3.3	4.4	4.0	2.6	2.7	0.5	-24.9	-21.7	5.4	5.9	5.5	4.5	3.4	4.0	3.6	3.2	2.6	2.0
		Panel [Quartile 3]	6.0	5.8	4.7	5.1	4.4	3.5	3.7	1.3	-16.5	-17.9	7.0	7.0	6.0	5.5	4.8	4.6	4.5	4.2	3.9	3.1
	FORECASTING ERROR	Government	3.775	3.744	-0.331	-0.263	0.646	0.546	2.398	-0.640	7.205	-4.222	3.018	3.144	2.030	2.037	0.667	0.646	3.460	3.060	18.714	17.778
		Panel [average]	2.647	2.450	-0.820	0.053	0.562	-0.420	2.511	0.305	-5.692	-3.212	2.993	3.178	1.040	0.368	0.596	0.830	3.319	3.080	19.045	18.388
		Panel [Quartile 1]	2.181	2.058	-1.363	-0.263	0.546	-0.844	1.960	-0.246	-9.077	-5.899	2.124	2.679	0.861	-0.150	-0.063	0.515	2.860	2.410	18.403	17.778

	Panel [Quartile 3]	2.785	2.554	0.011	0.429	0.943	0.018	2.910	0.535	-0.680	-2.162	3.744	3.744	1.365	0.812	1.335	1.146	3.760	3.410	19.638	18.913
Employment	OBSERVED	2.9	2.9	2.8	2.8	2.5	2.5	2.3	2.3	-7.5	-7.5	2.9	2.9	2.8	2.8	2.5	2.5	2.3	2.3	-7.5	-7.5
	FORECAST Government	2.5	2.7	**2.6**	**2.9**	2.5	**2.5**	**2.1**	2.3	**-5.1**	-8.4	**3.0**	**3.0**	2.2	2.2	**2.5**	2.4	**2.3**	2.0	**1.8**	**2.0**
	FORECAST Panel [average]	2.4	2.8	2.3	2.7	2.4	2.4	1.9	2.2	-7.9	-8.0	2.2	2.6	2.1	2.1	1.9	2.3	2.0	1.9	1.6	1.6
	FORECAST Panel [Quartile 1]	2.3	2.7	2.2	2.7	2.3	2.4	1.8	2.1	-9.7	-9.1	2.0	2.5	1.9	1.9	1.7	2.3	1.9	1.9	1.5	1.5
	FORECAST Panel [Quartile 3]	2.5	2.9	2.4	2.8	2.5	2.5	2.1	2.3	-6.0	-6.0	2.5	2.8	2.3	2.3	2.1	2.5	2.1	2.0	1.7	1.7
	FORECASTING ERROR Government	-0.353	-0.153	-0.263	0.087	-0.025	-0.025	-0.163	0.037	2.398	-0.919	0.117	0.147	-0.613	-0.613	-0.025	-0.125	0.037	-0.263	9.281	9.481
	FORECASTING ERROR Panel [average]	-0.420	-0.074	-0.537	-0.092	-0.117	-0.129	-0.350	-0.059	-0.445	-0.559	-0.631	-0.218	-0.727	-0.697	-0.577	-0.194	-0.271	-0.335	9.112	9.079
	FORECASTING ERROR Panel [Quartile 1]	-0.553	-0.186	-0.626	-0.140	-0.225	-0.125	-0.486	-0.188	-2.169	-1.664	-0.853	-0.353	-0.913	-0.926	-0.810	-0.243	-0.363	-0.413	8.981	9.027
	FORECASTING ERROR Panel [Quartile 3]	-0.334	-0.047	-0.413	-0.013	-0.025	-0.047	-0.211	-0.037	-1.508	-1.481	-0.353	-0.053	-0.538	-0.538	-0.425	-0.064	-0.171	-0.244	9.181	9.181

ANEXX II. ERROR CORRECTION MODELS

LONG-TERM EQUATION		SHORT-TERM EQUATION	
PRIVATE CONSUMPTION			
Gross disposable income of households and NPISHs (volume) (log)	0.506	Gross disposable income of households and NPISHs (volume) (dlog)	0.090
Households financial wealth. Volume (log)	0.119	Total household credit. Volume (dlog)	0.117
Households non-financial wealth. Volume (log)	0.091	Employment rate (differences)	0.006
Total household credit. Volume (log)	0.037	Dummy 2011q2	-0.010
Household credit rate. Reallevels	-0.002	Long-term error	-0.256
Constant	1.167	Constant	0.002
INVESTMENT IN EQUIPMENT			
% GDP Volume (log)	0.830	% GDP Volume (dlog)	2.724
Relative unit labour costs (log)	-0.400	Capacity utilization (differences)	0.006
Lending to resident companies. Balance sheet Real (log)	0.185	Long-term interest rate. Real (differences)	-0.008
Capacity utilisation (levels)	0.028	Dummy 2013q1_2013q4	0.039
Effective coorporate income tax rate* Dummy before 2008q1	-0.116	Dummy 2016q3	-0.056
Effective coorporate income tax rate* Dummy after 2008q1	-0.129	Dummy 2018q1	-0.041
		Long-term error	-0.191
		Constant	-0.008
INVESTMENT IN CONSTRUCTION			
Price of square metre housing INE. Real (log)	0.158	Price of square metre housing INE. Real (dlog)	0.146
Unemployment rate (levels)	-0.022	Unemployment rate (differences)	-0.016
Household Credit. Dwellings. Volume (log)	0.197	Household Credit. Dwellings. Volume (dlog)	0.251
Households financial wealth. Volume (log)	-0.152	Dummy 2009q2	-0.036
Construction climate index (levels)	0.001	Dummy 2014q1	0.050
Constant	4.163	Long-term error	-0.301
		Constant	-0.002
EXPORTS			
World trade of goods. Volume (log)	0.655	World trade of goods. Volume (dlog)	0.471
Nominal effective exchange rate (log)	-0.294	Nominal effective exchange rate (dlog)	-0.451
Relative unit labor costs (log)	-0.802	Imports of intermediate goods (dlog)	0.088
Imports of intermediate goods (log)	0.339	Dummy 2009q1	-0.039
Constant	5.045	Dummy 2012q3	0.028
		Long-term error	-0.170
		Constant	0.004
AMOUNTS			
Amounts on demand. Volume (log)	1.128	Amounts on demand. Volume (dlog)	1.700
Relative price of imports (log)	-0.639	Relative price of imports (dlog)	-0.205
Constant	2.370	Dummy 2009q1	-0.060
		Dummy after 2010q3	-0.010
		Long-term error	-0.166
		Constant	0.002
PRIVATE EMPLOYEES			
% GDP Volume (log)	2.225	% GDP Volume (dlog)	1.030
Working age population. Total (log)	1.978	Nominal compensation per employee (dlog)	-0.142
Private capital stock (log)	-1.521	Dummy (2008Q2 2012Q4)	-0.011
Constant	1.217	Long-term error	-0.125
		Constant	0.002
COMPENSATION PER EMPLOYEE. PRIVATE			
CPI Genral (log)	0.939	CPI Genral (dlog)	0.540
Productivity per employee (log)	0.341	Productivity per employee (dlog)	0.308
Compensation per employee. Public (log)	0.105	Effective rate of social contributions (differences)	-0.012
Effective rate of social contributions (levels)	-0.024	Long-term error	-0.300
Dummy 2008q1 2015q4	0.023	Constant	0.002
GROSS disposable INCOME OF HOUSEHOLDS AND NPISHS			
Compensation of employees. Total: Nominal (log)	0.515	Compensation of employees. Total: Nominal (dlog)	0.608
Gross operating surplus. Households and NPISHs. Nominal (log)	0.272	Gross operating surplus. Households and NPISHs. Nominal (dlog)	0.290
PIT proxy rate (levels)	-0.006	PIT proxy rate (differences)	-0.008
Social benefactors other than STK. Nominal (log)	0.173	Social benefactors other than STK. Nominal (dlog)	0.112
Constant	1.328	Long-term error	-0.663
CORE CPI			
% GDP Volume (log)	0.321	% GDP Volume (dlog)	0.121
VAT effective rate (levels)	0.024	Unemployment rate (differences)	0.000
Unit labor costs (log)	0.596	VAT effective rate (differences)	0.003
Dummy 2012q1 2012q4	0.030	Dummy after 2013q4	-0.003
Constant	0.012	Long-term error	-0.047
		Constant	0.008
CPI			
		Core CPI (dlog)	1.023
		Brent in €= Brent* €/$change rate (dlog)	0.017
GDP deflator			
		General CPI (dlog)	0.233
		Housing price INE. Nominal (dlog)	0.074
		IPRI capital goods (dlog)	0.316
		Dummy 2012q4	-0.010
		Dummy 2013q1	0.014
		Dummy 2015q1	0.009

Sample 1995Q1 - 2018Q4 (except for Private consumption and Imports due to abnormal data at the beginning of the sample 2000Q1 - 2018Q4 is taken instead