



REPORT ON THE MAIN BUDGETARY LINES OF THE PUBLIC ADMINISTRATIONS 2019

REPORT 45/18



Autoridad Independiente
de Responsabilidad Fiscal

The Independent Authority for Fiscal Responsibility (AIReF, for its acronym in Spanish) was created with the mission of ensuring 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

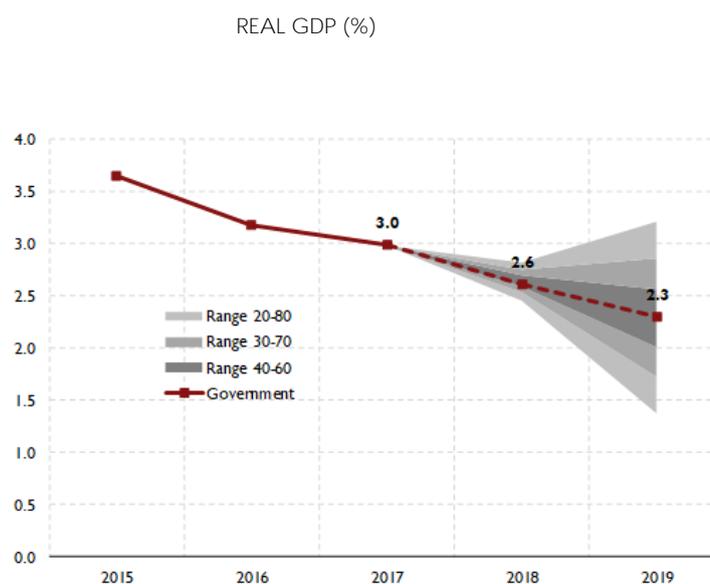
This report analyses the macroeconomic and fiscal scenario contained in the 2019 Budgetary Plan sent to the European Commission on 15 October. Current legislation provides that the Independent Authority for Fiscal Responsibility (AIReF) must prepare a report before 15 October on the draft budgets and main budgetary lines of the Public Administrations. If the General State Budget is not presented, the Budgetary Plan is configured as the major milestone of Spain's fiscal strategy for 2019. Therefore, AIReF prepares a report on the macroeconomic forecasts underlying the 2019 Budgetary Plan as well as its budgetary scenario, with a special assessment of the impact stemming from the planned revenue and expenditure measures. This analysis results in a series of recommendations and suggestions for best practice.

AIReF endorses the macroeconomic forecasts and considers the budgetary scenario presented by the Government to be feasible. AIReF considers the Government's macroeconomic scenario to be prudent overall, taking into account the exogenous assumptions and defined policies. On the other hand, AIReF considers the budgetary scenario of the Budgetary Plan to be feasible, although it believes there is no scope to assume deviations in the estimated impact of the measures.

The starting point for the analysis was the **'no policy change' scenario** published in July, on the occasion of the study on the 2018-2019 macroeconomic and budgetary scenario commissioned by the Government. On 10 July AIReF published a study on the macroeconomic and budgetary scenario for 2018 and 2019 under the assumption of no policy change. This study forecasted a robust GDP growth of 2.8% for 2018 and 2.6% for 2019, although more moderate than in previous years, with domestic demand as the main driver and supported by a slight positive contribution from the

external sector. On the fiscal side AIReF estimated a baseline deficit scenario for the General Government (GG) of 2.7% and 2.2% GDP in 2018 and 2019, respectively.

Since the publication of this inertial scenario in July there have been changes in the assumptions and new information that have led to a downward revision in growth for 2018 and 2019. National Accounts have published all the information concerning the second quarter of the year and all the Quarterly National Accounts from the first quarter of 2015 until the first quarter of 2018 have been revised to make them compatible with the Annual National Accounts. In addition, changes in the exogenous assumptions have focused on two facts: first, the increase in the price of oil which has an impact on the price of energy imports and, secondly, the downturn of the global economy, a result of trade disputes, which affects external demand.



The budgetary execution data and information available from the main budgetary lines of the Territorial Administrations have raised the deficit forecasts by 0.1% in 2018 and 2019. The revision of the 2017 year-end data, the 2018 execution data and the main budgetary lines of the Territorial Administrations have entailed an upward revision of the revenue and expenditure estimates which has resulted in a new estimate of 2.8% deficit in 2018 and 2.3% in 2019.

- Assessment of the 2019 macroeconomic scenario

The basic assumptions underlying the macroeconomic scenario accompanying the 2019 Draft Budgetary Plan are considered feasible and the composition of growth is considered plausible. With respect to the last official update, the assumptions made by the Government relating to the external environment have been revised downward and are in line with major international organisations and market expectations. The expected path for 2019 continues to be based on domestic demand as the main source of growth, based on the positive evolution of investment, particularly in the construction branch. The evolution of private consumption is in line with AIReF's forecasts, following a revision of the latest quarterly data published by the National Statistics Institute at the end of September. In turn, the Government's public consumption forecast has been revised upward, in line with the latest available information and forecasts from AIReF's models, reflecting some of the measures contained in the Budgetary Plan. Finally, the Government has made a downward revision of the foreign sector's contribution, leaving its contribution to growth at neutral. This update is in line with AIReF's internal forecasts and uses the latest available information on the more contained evolution of exports.

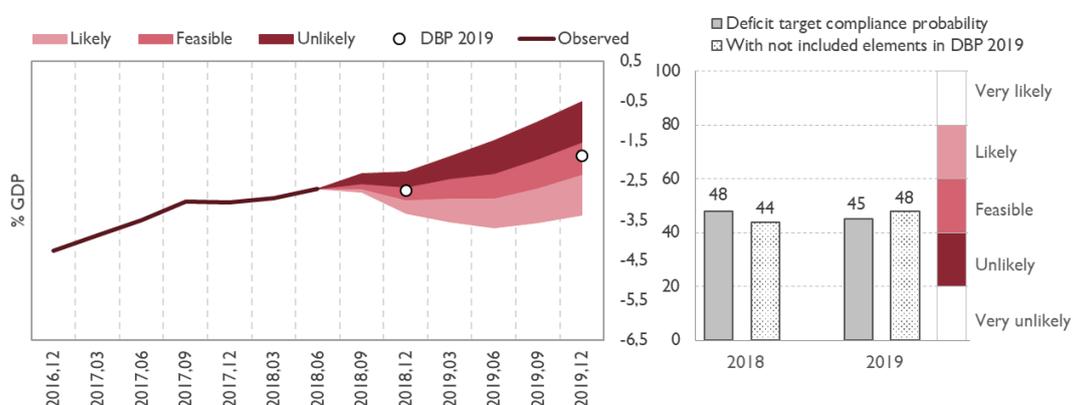
The macroeconomic impact of the measures advanced by the Government is considered feasible. The macroeconomic impact of the measures analysed is moderate - neutral in real terms and positive in nominal terms - although there are downside risks beyond 2019. This assessment conducted by AIReF based on its internal models is in line with the impact included by the Government in the Budgetary Plan. AIReF appreciates the access related to the inertial scenario provided by the Government, which allowed for the macroeconomic impact assessment of the measures and their main transmission channels.

- Assessment of the 2019 budgetary scenario

For 2019, the revision of revenue and expenditure, including the movement of the expected impact of a judicial sentence on the annulment of the concession contract for the Ter-Llobregat (ATL) water supply to 2018, place the deficit forecasted by AIReF under the assumption of no policy change at 2.3% GDP. With respect to the July forecast, which included a deficit of 2.2%, expenditure has been revised upward by 0.4% GDP, while the baseline revenue scenario has increased by over 0.2%. In this revision the expected impact of a judicial sentence on the annulment of the concession contract for the Ter-Llobregat water supply has moved to 2018. With the information available to date, it is estimated that the most likely scenario is that the transfer of assets resulting from this judicial sentence will occur before the end of 2018.

According to AIReF's estimates, the new measures included in the Budgetary Plan would correct the deficit by between 0.2% and 0.4% GDP. AIReF has estimated a potential impact of the revenue measures of between 0.4% and 0.6% GDP, while the new expenditure measures account for slightly more than 0.2%. In general, these measures will be included in the draft General State Budget, although most revenue measures require the implementation of legal changes through their own laws as is the case with the creation of new taxes.

2018-2019 NET LENDING/BORROWING PATH. GENERAL GOVERNMENT IN % GDP.



Regarding revenue measures, AIReF has estimated an increased potential collection of between 0.4% and 0.6% GDP, appreciating the greater uncertainties in the new taxes. The proposed measures consist in the modification of existing taxes as is the case of Corporate Income Tax, Social Security Contributions, the Tax on Hydrocarbons and Personal Income Tax, as well as the creation of new taxes such as the Tax on certain Digital Services and the Tax on Financial Transactions. Most of these measures affect the Central Administration and Social Security Funds.

REVENUE MEASURES FOR 2019: BUDGETARY PLAN AND AIReF ASSESSMENT
 (millions of euros)

Revenue measures	Budgetary Plan 2019	AIReF estimates 2019
Corporate income tax: Limitation on exemptions and deductions for double taxation and minimum rate on Corporate Income Tax: Discounted rate for SMEs	1.776	(1650 ; 1900)
Tax on Financial Transactions	850	(420 ; 850)
Tax on certain Digital Services	1.200	(546 ; 968)
Increase of personal income tax rates on higher income	328	(245 ; 255)
Green taxation (Hydrocarbons Tax)	670	(649 ; 693)
VAT: Reduced rates for veterinary services	-35	-35
VAT: Gender taxation and inequality	-18	-18
Fight against fraud: Limitation of cash payments	218	(100 ; 200)
Fight against fraud: Strengthen list of defaulters	110	(50 ; 100)
Fight against fraud: International best practices for preventing and combating fraud	500	(200 ; 270)
Social contributions due to the rise in the SMI	1.500	(1,500 ; 1,700)
Wealth Tax	339	(0 ; 8)
Total measures Budgetary Plan	7.178	(5,065 ; 6,613)
Measure not developed in the Budgetary Plan		
Increase maximum contribution bases	-	(1,000 ; 1,100)
TOTAL MEASURES	7.178	(6,065 ; 7,713)

AIReF estimates an impact of the new expenditure measures contained in the Budgetary Plan of 0.2% GDP, departing from the Government's projections, mainly due to the estimated impact in the Regions of the abolition of the pharmaceutical co-payment to pensioners. In the GG the measures with a greater quantitative impact affect expenditure on pensions and other social benefits such as dependency, paternity leave or pharmaceutical co-payment to pensioners, the abolition of which is not quantified in the Budgetary Plan.

EXPENDITURE MEASURES FOR 2019: BUDGETARY PLAN AND AIReF ASSESSMENT
 (millions of euros)

Expenditure measures	Budgetary Plan 2019*	AIReF estimate 2019
Revaluation of pensions to the CPI and increase of minimum and non-contributory pensions to 3%	736	843
<i>Pension revaluation to CPI</i>		518
<i>Increase of minimum and non-contributory pensions</i>		325
Measures quantified jointly in the Budgetary Plan	1.318	1.318
Improve minimum and agreed level of dependency.		515
SS caregiver contributions		0
Increase in the minimum wage to 900€ per month		0
Recover subsidy for those older than 52 years		323
Paternity leave of 5 to 8 weeks		300
Minimum income		180
Measures listed in the Budgetary Plan and quantified in the additional information	425	725
Increased funding for scholarships	150	150
Aid for school materials	50	50
Meal aid	25	25
Increase in Science and R+D+i line items	150	150
Support for the production and promotion of film productions in different languages	20	20
Gender Violence Pact	20	20
Depopulation offices	10	10
Elimination of co-payment		300
TOTAL MEASURES	2.479	2.886

(*) The quantification of the measures of the Budgetary Plan was provided in the additional information provided by the MINHAC. The measures that appear quantified together in the Budgetary Plan amount to 1,364 million, but this amount is reduced to 1,318 million according to the additional information provided.

AIReF's recommendations focus on strengthening the monitoring of the risk areas identified and developing a medium-term fiscal strategy that allows a permanent deficit reduction. AIReF identifies three areas; newly created taxes, fiscal impact of the expected rise in the Minimum Wage and the growing trend of the expenditure of the Territorial Administrations, where the quantitative relevance and high uncertainty point towards a strengthening of

the monitoring beyond that generally stipulated by the Organic Law on Budgetary Stability and Financial Sustainability.

Similarly, AIReF continues to emphasise the need to develop a medium-term fiscal strategy that includes measures oriented towards a permanent deficit reduction and recommends that this be reflected in the 2019-2022 Stability Programme Update which will take place next April.

1 INTRODUCTION

This report analyses the macroeconomic and fiscal scenario contained in the 2019 Budgetary Plan sent to the European Commission on 15 October. Current legislation provides that the Independent Authority for Fiscal Responsibility (AIReF) must prepare a report before 15 October on the draft budgets and main budgetary lines of the Public Administrations. If the General State Budget is not presented, the Budgetary Plan is configured as the major milestone of Spain's fiscal strategy for 2019. Therefore, AIReF prepares a report on the macroeconomic forecasts underlying the 2019 Budgetary Plan as well as its budgetary scenario, with a special assessment of the impact stemming from the revenue and expenditure measures planned. This analysis results in a series of recommendations.

At that time, AIReF anticipated its endorsement of the macroeconomic scenario underlying the Budgetary Plan, considering it prudent as a whole. Based on the information provided until then, the macroeconomic forecasts underlying the budgetary scenario included in the Budgetary Plan have been endorsed by AIReF, which rated them as feasible by considering exogenous assumptions and defined policies. The information available at that time was limited to the figures of the macroeconomic scenario and some of the budgetary measures finally included in the Budgetary Plan. This initial assessment was sent to the Government, thereby enabling the incorporation of AIReF's conclusions and endorsement prior to referral of the Budgetary Plan to the EU institutions.

AIReF performs a provisional assessment of the Budgetary Plan with the information available to date. Within the normal budgetary procedure, the Budgetary Plan is sent to the European Commission once the Government has presented its draft General State Budget (GSB) before Parliament. In 2019, as in 2017 and 2018, the Government has not fulfilled the constitutional provision to present this draft before 30 September. Consequently, this assessment must

be carried out with an important limitation that prevents a closer analysis, especially from the expenditure side. Later, when the draft GSB for 2019 is presented, AIReF will issue its report on the same, updating its assessment of the General Government (GG) sector. In addition, AIReF will complete this analysis with the reports on the main budgetary lines and draft budgets of the rest of the sub-sectors as the necessary information becomes available.

The Budgetary Plan only includes the budgetary estimates of the GG. The fiscal scenario reflected in the Budgetary Plan is exclusively defined for the GG and includes the main revenue and expenditure items in national accounting terms. In previous reports AIReF has noted the need to include a breakdown by sub-sector, which is only carried out in the Budgetary Plan to analyse the past and greater detail on the main expenditure and revenue items, with emphasis on the assumptions underlying their evolution.

2 AIREF'S INERTIAL SCENARIO

2018-2019

2.1 Macroeconomic scenario

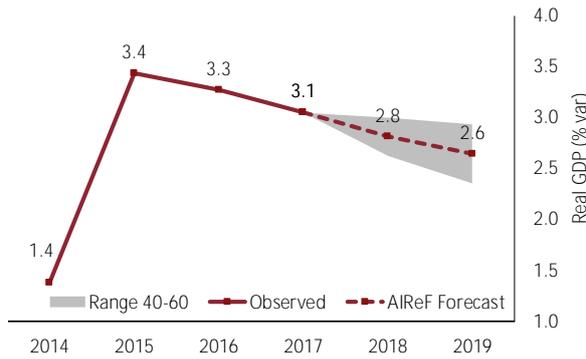
2.1.1 Background

On 10 July AIReF published a study on the macroeconomic and budgetary scenario for 2018 and 2019 under the assumption of no policy change. To determine the inertial macroeconomic scenario, AIReF made a seven-quarter forecast (the INE - National Statistics Institute - had not yet published the second quarter of 2018, which it did on 31 July in its advance estimate). For this reason, an environment external to the Spanish economy based on technical assumptions drawn from the forecasts of major international agencies was first contemplated. On the other hand, the forecast rested primarily on short and medium term empirical models developed by AIReF. These were supplemented by a consistency exercise based on an analysis of the deviations from certain long-term economic relations and the analysis of the various sectoral accounts within a simplified framework of national accounts.

This study forecasted a GDP growth of 2.8% for 2018 and 2.6% for 2019, with domestic demand as the main driver and supported by a slight positive contribution from the external sector. Economic growth in the inertial scenario envisaged by AIReF was 2.8% in 2018 and 2.6% in 2019 (see figure 1). This was anchored in the contribution of domestic demand, where its components tended to decelerate as the forecasting horizon progressed, given the maturation of the economic cycle and its increasing deviations from the long-term equilibrium relationships. On the other hand, it was expected that external demand would decrease its positive contribution, until near elimination by 2019 (see figure 1.2). A greater dynamism of prices is also expected, in line with a progressive improvement of the output gap, completing the economic cycle that started 20 years ago (see figure 1.4). The cyclical dynamic contributed to greater pressure on prices, expecting growth rates above 1.5%, both in 2018 (1.6%) and in 2019 (1.7%).

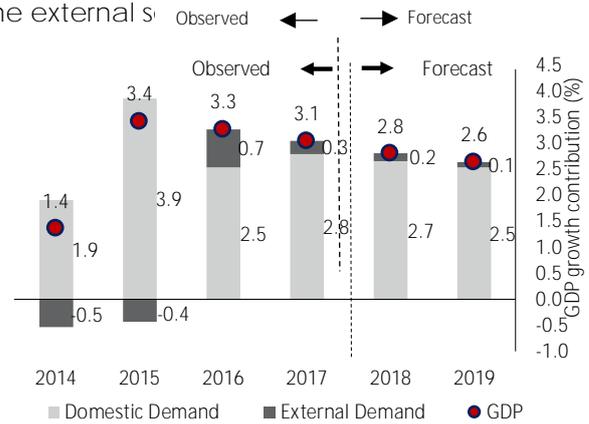
FIGURE I. MACROECONOMIC SCENARIO FORECASTED LAST JULY: MAIN FEATURES

1 The GDP forecast for 2018 and 2019 maintained a robust but more moderate growth path ...



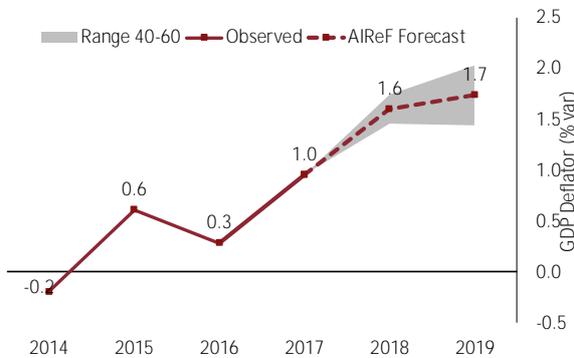
Source. National Statistics Institute and AIReF

2 ... keeping domestic demand as the main driver, with a slight positive contribution from the external s



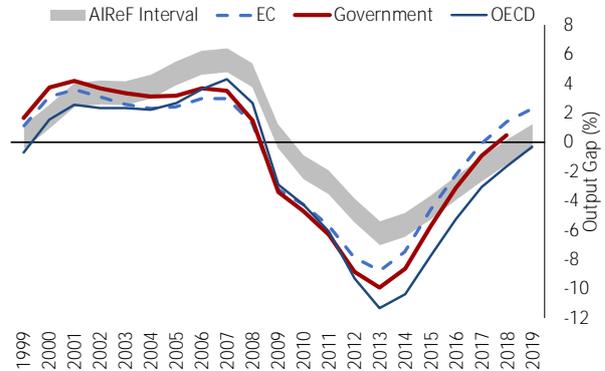
Source. National Statistics Institute and AIReF

3 Greater price dynamism was expected ...



Source. National Statistics Institute and AIReF

4 ... in line with a progressive improvement in the output gap, closing the cycle that began 20 years ago



Source. AIReF, OECD, Ministry of Economy, European Commission

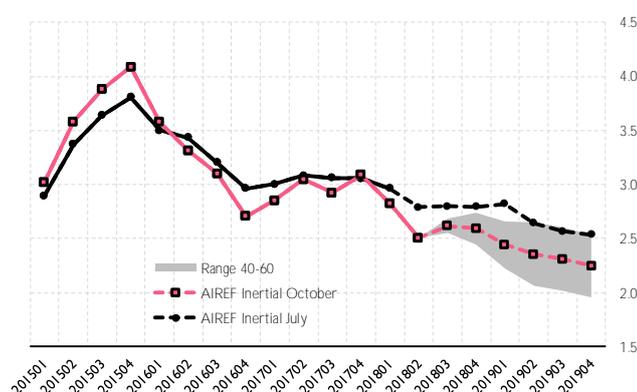
2.1.2 An updated inertial macroeconomic scenario

Since the publication of this inertial scenario in July there have been changes in the assumptions and new information that requires a re-evaluation of the forecasts made.

Specifically, National Accounts have published all the information concerning the second quarter of the year and, in addition, all the Quarterly National Accounts from the first quarter of 2015 until the first quarter of 2018 have been reviewed to make them compatible with new data of the Annual National Accounts. On the other hand, changes in the external environment have focused on two facts: first, the increase in the price of oil which has an impact on the price of energy imports and, secondly, the downturn of the global economy, a result of trade disputes, which affects external demand (see table A1 in the annex).

These factors combined have led to a downward revision of growth in real terms of 0.2% in 2018 and 0.3% in 2019. Following the INE's revision 0.1% is detracted for both the first and the second year, pointing to a more mature economic cycle than originally expected, which leads to a more rapid deceleration. Meanwhile, due to the change in the exogenous assumptions the forecasts are reduced by 0.1% in 2018 and 0.2% in 2019, stemming from the lower growth of external demand and the rising price of energy imports. The comparative evolution of the revision alongside the new forecast path can be seen in the figure below:

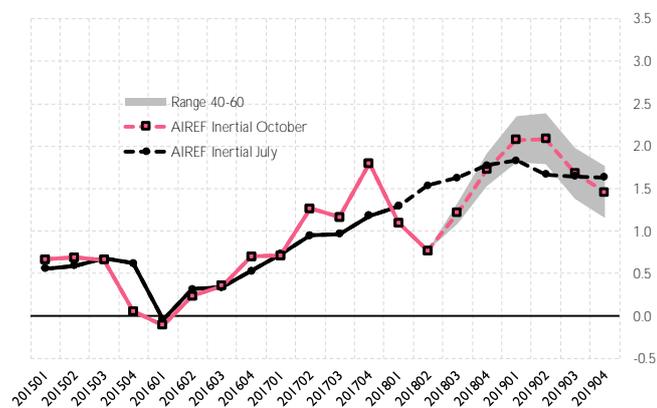
FIGURE 2. REVISION OF REAL GDP (YEAR-ON-YEAR RATES OF QUARTERLY DATA)



The revision of national accounts has also had a significant impact on deflators. We can clearly see the complete change of profile of the GDP deflator series, as well as a significant downward revision of the price projections in the short term, due to the sharp cut that the figures

corresponding to the first half of 2018 have experienced. Of the 0.4% by which the deflator forecasts for this year have been revised, 0.3% is due to this fact. On the contrary, for 2019 the forecasts have barely been revised, given that the slowdown in external demand dampens inflationary pressures. The revision of the GDP deflator and the changes in its forecasts can be seen in figure 3.

FIGURE 3. REVISION OF GDP DEFLATOR (YEAR-ON-YEAR RATES OF QUARTERLY DATA)



With respect to the inertial scenario of July, the forecast for nominal GDP is revised downwards by 0.6% for 2018 and 0.3% for 2019. In addition, both the revision and second quarter published by the INE, such as the changes in exogenous assumptions, have led to changes in the structure and forecast of the aggregates of demand. Specifically, domestic demand remains strong as a whole, but with changes in its composition, while external demand ceases to contribute positively to growth in 2018. Table 1 summarises the revisions for all the components of demand. Since July nominal GDP has been revised downward by 0.6% for 2018 and 0.3% for 2019 (see Figure 4), adding 0.4% and 0.1% to the revisions and new data from the INE, respectively.

FIGURE 4. REVISION OF NOMINAL GDP (YEAR-ON-YEAR RATES OF QUARTERLY DATA)

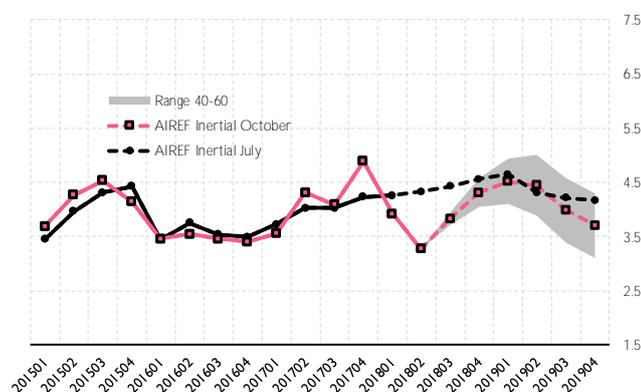


TABLE I. REVISION FROM JULY TO OCTOBER IN THE COMPONENTS OF DEMAND (P.P.)

	2018	2019
Private consumption	-0,1	-0,5
Public consumption	0,1	0,0
Investment capital goods and cultivated assets	1,3	-0,8
Investment construction and intellectual property	0,7	0,8
Exports	-1,7	-1,0
Imports	-0,9	-0,7

2.2 Budgetary scenario

2.2.1 Background

In the study carried out in July, commissioned by the Government, AIReF **placed the deficit of the GG for 2018 and 2019, in a 'no policy change' scenario, at 2.7% and 2.2%, respectively.** Article 5 of Organic Law 6/2013 of 14 November, establishing AIReF, establishes that this institution may carry out studies at the behest of, among others, the National Government. Within the framework of this legal empowerment the Government asked AIReF to produce a 'no policy change' budgetary scenario for 2018 and 2019, i.e. on the basis of an inertial macroeconomic scenario and an evolution of income and expenditure within the current normative framework.

The Government took these estimates as a starting point for updating the deficit path for the 2019-2021 period. In the framework defined by this update, the Government set a target of 1.8% deficit in 2019. The Government's revised path for the GG is envisaged in the Budgetary Plan, compared to the 1.3% in force. By sub-sectors, the larger margin available in 2019 would be distributed

among the Central Administration (CA), 0.1% to the Social Security Funds (SSF) and 0.2% to the Autonomous Regions.

TABLE 2. DEFICIT PATH

Lending (+) Borrowing (-) as % GDP	2017 year-end closing	2018			2019	
		ACM Objectives 2018 (July 2017)	1st Commission Notification 31/03/2018	2nd Commission Notification 31/09/2018	ACM Objectives 2019 (July 2017)	Budgetary Plan 2019
Central Administration	-1,9	-0,7	-1,2	-1,5	-0,3	-0,4
Social Security	-1,5	-1,1	-1,4	-1,5	-0,9	-1,1
Autonomous Communities	-0,3	-0,4	-0,2	-0,3	-0,1	-0,3
Local Entities	0,6	0,0	0,6	0,6	0,0	0,0
Total General Government	-3,1	-2,2	-2,2	-2,7	-1,3	-1,8

Since July, AIReF has updated the macroeconomic and budgetary scenario. As a step prior to the evaluation of the Budgetary Plan and the measures contained therein, it is appropriate to explain the changes that have occurred in the scenario developed under the assumption of no policy change. Within the framework of the continuous monitoring of the budgetary cycle AIReF has been including the latest information available to date in its baseline scenario:

- Budgetary execution data corresponding to the months since the publication
- Information provided by the different administrations
- New macroeconomic data
- Revision of the national accounts data by the IGAE (General Intervention Board of the State Administration) and the INE, who published the final data for 2016, the provisional data for 2017 and the second quarter of 2018.
- Measures adopted by the different administrations, such as the moratorium of the tax on means of electricity production.

2.2.2 Closing forecasts for 2018

The deficit forecast for 2018 stands at 2.8% of GDP, increasing the July forecast by 0.1%. Both income and expenditure have been revised upwards in accordance with the new information incorporated into the analysis. This increase is less than 0.3% in income, while expenditure increase its weight by over 0.3%, which explains the deterioration of the balance in relation to that included in the study. By sub-sector, there is a deterioration of the balance of the Territorial Administrations (TAs) partially offset by the improvement in the CA and the SSF.

TABLE 3. AIREF'S 2018 FORECASTS (IN %GDP)

TOTAL GENERAL GOVERNMENT						2018	
	2002	2014	2015	2016	2017	Study	Lines 19
						Jul-18	Oct-18
A. REVENUES TOTAL GENERAL GOVERNMENT	38,2	38,9	38,5	37,7	37,9	38,4	38,6
1. Total taxes	21,7	22,3	22,5	22,1	22,3	22,6	22,8
1.1. Taxes on production and imports	11,1	11,5	11,8	11,6	11,6	11,8	11,8
1.2. Current taxes on income and wealth	10,3	10,2	10,1	9,9	10,2	10,4	10,5
1.3. Taxes on capital	0,4	0,5	0,6	0,6	0,5	0,5	0,5
2. Social security contributions	12,7	12,5	12,3	12,2	12,3	12,3	12,4
3. Property income and other revenues	3,8	4,1	3,7	3,5	3,4	3,4	3,5
B. EXPENDITURES TOTAL GENERAL GOVERNMENT	38,6	44,8	43,8	42,2	41,0	41,1	41,5
1. Compensation of employees	9,7	11,1	11,1	10,9	10,5	10,4	10,5
2. Intermediate consumption	4,2	5,3	5,3	5,1	5,0	4,9	5,0
3. Social transfers in kind	2,4	2,7	2,6	2,6	2,6	2,5	2,5
4. Social transfers in cash	11,6	16,5	15,8	15,6	15,2	15,3	15,4
5. Interest	2,6	3,5	3,1	2,8	2,6	2,4	2,4
6. Gross capital formation	4,0	2,1	2,5	1,9	2,0	2,3	2,3
7. Subsidies and other expenditures	4,1	3,7	3,4	3,3	3,1	3,3	3,4
Net lending (+) / Net borrowing (-)	-0,4	-6,0	-5,3	-4,5	-3,1	-2,7	-2,8

Revenue has increased its weight on GDP by almost 0.3%, driven by the good performance of income taxes and contributions. The revision of GDP explains 0.1% of the variation; the rest is concentrated in the forecasts on income taxes and social security contributions. The good performance seen in these revenue items has offset the slight deterioration in the forecast of collection from VAT and other taxes.

It should be noted that the adoption of the Royal Decree-Law 15/2018, of October 5, on urgent measures for energy transition and consumer protection has led to changes in environmental taxation with the suspension of the tax on the value of the production of electricity for the last quarter of 2018 and the first of 2019. This loss of revenue in 2018 and 2019 would be offset by higher revenues from auctions on greenhouse gas emission allowances, which in turn will also enable the transfers to the electricity sector to be maintained in order to alleviate the levels initially envisaged, resulting in a neutral effect on the deficit.

Expenditure has increased its weight on GDP by almost 0.4%, registering the upward trend of expenditure in the TAs and the impact of non-recurring operations expected at the end of 2018. The increase in the weight of expenditure, without considering that derived from the revision of GDP, is concentrated:

- in the public consumption of the TAs that has increased with the update of the closing data for 2017, which impacts on recurrent expenditure integrated into public consumption
- in interest expenditure, revised with the latest execution data, and,

- in the rest of expenditure due to the incorporation of the impact of non-recurring operations: the judicial sentences in several autonomous regions that will finally have an effect in 2018, which finally includes the Aigües Ter Llobregat (ATL) judicial sentence that to date had been considered more likely to have an impact in 2019, and the largest amount requested for the conversion of deferred tax assets into amounts receivable.

The current information available about the judicial sentence of Aigües Ter Llobregat (ATL) has resulted in the translation of its impact to the scenario for 2018. Although the Budgetary Plan reflects the impact of measures in 2018, these are measures already in force whose effects are fully incorporated into AIR^eF's scenario. In its plan it is expected that the effect of the judicial sentence for annulment of the concession contract for the Aigües Ter-Llobregat supply will fall on 2019. The sale of the concession took place in the year 2012, registering the income corresponding to the operation on the Region's accounts, for over 600 million euros. However, in February 2018 the Supreme Court declared the nullity of the award of the concession, which means, as long as there is no re-tendering, the reversion of the corresponding assets and liabilities to the Region and compensation to the concession holder for the amount to be established. According to Decree Law 4/2018, of 17 July, the Generalitat has created the Ens d'Abastament d'Aigua Ter-Llobregat which is the public company that has to provide the service when, in execution of the judicial sentence, the concession contract is liquidated and the Generalitat recovers the assets. The first additional provision provides that the recovery of assets and the start of the provision of the service by the new entity will take place by 31 January 2019 at the latest but, according to the Region, this could take place earlier, depending on the resolution of the execution of the judicial sentence. With the information available to date, AIR^eF believes that there is a greater chance of resolving the transfer of assets before the end of 2018, so it has imputed its impact to this year.

2.2.3 Forecasts for 2019 based on no policy change

For 2019, AIR^eF's deficit forecast under the assumption of no policy change would be 2.3% GDP, once the expected impact of the ATL judicial sentence is transferred to 2018. With respect to the July forecast, which included a deficit of 2.2%, expenditure has been revised upward by almost 0.4% GDP, while the baseline revenue scenario has increased by over 0.2%. By sub-sector, the deterioration with respect to the study is centred in the Central Administration and, to a lesser extent, in the TAs.

TABLE 4. AIREF FORECASTS FOR 2019 UNDER NO POLICY CHANGE (%GDP)

TOTAL PUBLIC ADMINISTRATIONS	2016	2017	2018		2019	
			AIReF	Budget Plan	AIReF	Budget Plan
Taxes on production and imports	11,6	11,6	11,8	11,7	12,1	11,9
Current taxes on income and wealth	9,9	10,2	10,5	10,5	10,7	10,7
Taxes on capital	0,6	0,5	0,5	0,5	0,5	0,5
Social security contributions	12,2	12,3	12,4	12,4	12,6	12,5
Property income	0,7	0,6	0,6	0,6	0,6	0,6
Other revenues	2,8	2,8	2,9	2,9	2,8	2,9
TOTAL REVENUES	37,7	38,0	38,6	38,5	39,2	39,1
Compensation of employees	10,9	10,5	10,5	10,4	10,5	10,4
Intermediate consumption	5,1	5,0	5,0	5,0	4,9	5,0
Social transfers	18,2	17,8	17,9	17,9	18,1	18,0
<i>of which unemployment subsidies</i>	1,7	1,5	1,4	1,4	1,4	1,4
Interests	2,8	2,6	2,4	2,4	2,3	2,3
Subsidies	1,0	1,1	1,1	1,0	1,0	0,9
Gross capital formation	1,9	2,0	2,3	2,2	2,1	2,1
Capital transfers	0,7	0,6	0,7	0,7	0,6	0,6
Other expenditures	1,6	1,4	1,6	1,6	1,6	1,6
TOTAL EXPENDITURES	42,2	41,0	41,5	41,2	41,1	40,9
Net lending (+)/ Net borrowing (-)	-4,5	-3,0	-2,8	-2,7	-1,9	-1,8

(*) Includes the translation to 2018 of the impact of the Aigües Ter Llobregat (ATL) judicial sentence

The increase in the weight of revenue and expenditure stems from the carry-over effect from 2018, to which the impact of non-recurrent measures expected for 2019 is added. In line with what was indicated for 2018, in general the projected revenue records the positive performance of income taxes and social security contributions, offsetting the lower growth noted in other taxes. The revision of the macroeconomic scenario with respect to that forecasted in July, leads to a weaker evolution of the tax bases for Personal Income Tax (PIT) and VAT, offset by the improvement in contributions, Corporate Income Tax (CIT) and Real Estate Tax (RET). Due to the revision for 2018, expenditure reflects a greater weight of public consumption in the TAs, accentuated by certain measures announced or implemented in 2018 and with impact in 2019, and the upward revision of interest expenditure. In addition, AIReF's scenario under constant policy incorporates the expected impact of various judicial sentences in the Regions into the expenditure forecast, which do not include, considering the latest information available, that relating to Aigües Ter Llobregat, whose impact has been moved to 2018.

3 BUDGETARY IMPACT

The new measures incorporated in the Budgetary Plan for both revenue and expenditure would correct the deficit by 0.4% GDP. The Plan includes revenue measures for a total of 7,178 million euros, and measures to increase expenditure valued at 2,479 million euros. In general terms, the revenue measures are included with a high level of detail alongside the quantification of their impact. On the contrary, part of the measures to increase expenditure are included in the Budgetary Plan by way of example but in other cases the potential budgetary impact that could derive from the same is not broken down. As a result, AIReF has requested that the MINHAC provide more information and details on the characteristics and impact of the measures in the face of their evaluation. On the other hand, the Budgetary Plan includes a series of measures that are already incorporated into the 'no policy change' scenario as they were put in place prior to the publication of the Plan. In this respect, the measures relating to compensation of employees and revaluation of pensions stand out at 1.6%.

According to AIReF's estimates, these new measures included in the Budgetary Plan would correct the deficit by between 0.2% and 0.4% GDP. AIReF has estimated a potential impact of the revenue measures of between 0.4% and 0.6% GDP, while the new expenditure measures account for slightly more than 0.2%. The revenue measures require the implementation of legal changes through their own laws as is the case with the creation of new taxes. The rest of the revenue measures, as well as most of the expenditure measures, are included in the draft GSB. Even if the measures were adopted in the terms included in the Budgetary Plan, there is a significant degree of uncertainty about the final impact of the measures, especially relevant when it comes to

new taxes. On the other hand, both in the case of revenue and expenditure, the time of adoption and entry into force also influence the end result.

3.1 Details of the main revenue measures

The main revenue measures, affecting the CA and the SSF, entail the creation of new taxes and the amendment of the regulations on Corporate Income Tax (CIT) and social security contributions. The proposed measures consist in the modification of existing taxes as is the case of CIT, social security contributions, the Tax on Hydrocarbons and PIT, as well as in the creation of new taxes such as the Tax on certain Digital Services and the Tax on Financial Transactions. Most of these measures affect the Central Administration and Social Security Funds. The following table summarises the main measures and the range valued by AIReF for incorporation into its forecasts.

TABLE 5. REVENUE MEASURES FOR 2019: BUDGETARY PLAN AND AIREF EVALUATION (MILLIONS OF EUROS)

Revenue measures	Budgetary Plan 2019	AIReF estimates 2019
Corporate income tax: Limitation on exemptions and deductions for double taxation and minimum rate on Corporate Income Tax: Discounted rate for SMEs	1.776	(1650 ; 1900)
Tax on Financial Transactions	-260	(-242 ; -278)
Tax on certain Digital Services	850	(420 ; 850)
Increase of personal income tax rates on higher income	1.200	(546 ; 968)
Green taxation (Hydrocarbons Tax)	328	(245 ; 255)
VAT: Reduced rates for veterinary services	670	(649 ; 693)
VAT: Gender taxation and inequality	-35	-35
Fight against fraud: Limitation of cash payments	-18	-18
Fight against fraud: Strengthen list of defaulters	218	(100 ; 200)
Fight against fraud: International best practices for preventing and combating fraud	110	(50 ; 100)
Social contributions due to the rise in the SMI	500	(200 ; 270)
Wealth Tax	1.500	(1,500 ; 1,700)
	339	(0 ; 8)
Total measures Budgetary Plan	7.178	(5,065 ; 6,613)
Measure not developed in the Budgetary Plan		
Increase maximum contribution bases	-	(1,000 ; 1,100)
TOTAL MEASURES	7.178	(6,065 ; 7,713)

The impact of the changes to the CIT is in line with AIReF's estimates. On the one hand, limitation of the exemptions on dividends and capital gains generated abroad, which rises from 95% to 100%, and the introduction of a minimum rate, 15% or 18% depending on the case, would imply an increase in the collection of around 1,800M€ on the tax base. On the other hand, these measures are partially offset by the reduction of the rate for SMEs, which drops from 25% to 23%, representing a fall in collection of around 260M€. This impact will occur in 2019 provided that the Government takes measures to affect the rise in instalment payments for the year.

The rise in the minimum wage has a direct impact on social security contributions. The increase in the minimum wage up to 900 euros has a direct effect on contributions from workers in the General Regime concerned, which would be around 600M€. Also, in accordance with article 19 of the General Law on Social Security, the rise in the minimum wage is translated to the minimum contributory base of the Special Regime for Self-employed Workers,

which encompasses most of this group, increasing revenue by 1,000M€. Therefore, AIReF considers that the impact could range between 1,500M€ and 1,700M€.

AIReF estimates a lesser tax collection for certain Digital services. The Draft Budgetary Plan includes an impact that amounts to 1.200M€, while AIReF considers that it could reach between 546 and 968M€. As a starting point, AIReF has taken into consideration the information provided by the European Commission on the establishment of this tax at European level, with the necessary adjustments given the differences arisen between the taxable events in the case of the European tax and the Spanish one. In order to allocate part of the whole impact to Spain, there has been an analysis of Eurostat data on certain issues such as the participation in social networks, the search for information aimed at the purchase of goods and services, travel and accommodation. In addition, it must be considered that the limit on the total amount of revenue derived from digital services subject to the tax, set at 5 million euros in the proposal, is reduced to 3 million in the Spanish case, which would result in increased collection.

Estimates of the Tax on Financial Transactions also present a high degree of uncertainty. AIReF's estimates of the impact fall within a range between 420M€ and 850M€ in the Budgetary Plan. To obtain these figures, it resorted to using both data on financial transactions of companies affected by the measure, Spanish companies with a market capitalisation of over 1,000M€, and the experience of other countries in our surroundings with similar figures, mainly Italy and France. The first approach allows the higher part of the range to be obtained, although there is still a high degree of uncertainty about the difference between gross and net operations. The second approach, which leads to a lower estimate, takes France as a reference, whose configuration of the tax is similar to the Government's proposal. This country obtained collection of 1,451M€ in 2017, which was corrected with the lower tax rate in Spain, 0.2% against 0.3%, and the lower number of companies affected, 64 compared to 144.

The increase in the taxation of diesel will allow for collection in line with that included in the Budgetary Plan. The increase in the rate of diesel fuel for automotive industry by 38 euros/1,000 litres, without any change in taxation on diesel for professional use and agricultural diesel, is contemplated as a measure in the Budgetary Plan. This measure would also affect the collection of VAT in the case of non-professional use, resulting in a tax impact for both taxes between 649 and 693M€. Given that the measure is the result of an increase in tax rates, according to the regional financing system, its impact on the transfer of the Tax on Hydrocarbons to the same (58% transfer) will be

neutralised in the Adequacy Fund. For this reason, it will only affect the evolution of the State transfers to the Regions and Local Corporations (LCs) through the financing system, as it influences State collection and therefore State tax revenues, an effect that is not very significant. Finally, considering the short-term rigidity of the demand of this product, AIRcF does not consider second-round effects within 2019.

The increase in PIT for high incomes would have less of an impact due to the transfer of a part of the amount settled to 2020. The Budgetary Plan includes an impact of 328M€, which would only correspond with the rise in income from work. For its part, AIRcF considers that the impact could be somewhat higher, but that only around 250M€ would be accrued in 2019 as part of the withholding of earnings from work, while the rest would be transferred to 2020. In the same way, the increase in the rates of income from savings is fully transferred to 2020 with an estimated impact of around 380M€.

AIRcF has incorporated a lesser impact of measures against tax fraud on collection. Although the information provided by the Tax Agency on the impact of measures to combat fraud had a high degree of detail, the final effect is quite uncertain. On the one hand, both the limitation of cash payments and the reinforcement of the list of debtors have a history that make the estimates more robust and they will be implemented through a law. On the other hand, the set of measures grouped under the heading of adopting international best practices are formulated in detail, but the time required for them to take effect in their entirety introduces additional uncertainty. In this sense, AIRcF has opted to incorporate a more limited effect than the 828M€ of the Budgetary Plan, between 350 and 570M€.

AIRcF believes that the measure relating to the Heritage Tax would have virtually no impact. With the current legislation, it would only affect the four Regions that do not have their own rate regulated and have not subsidised the fee and, therefore, the State rate would be directly applicable, in addition to the State (due to the tax on non-residents and residents in Ceuta and Melilla). In addition, to have an impact in 2019, it would be necessary for the Law on the tax to be amended before 31 December 2018.

Finally, the Government has stated its intention to include a rise in the maximum contribution bases in the GSB. Although the Budgetary Plan does not specifically include this measure, it is true that it links the rise of the maximum contribution base to the rise in the minimum wage. If it increases by a percentage of around 10/12%, an additional 1,000M€ to 1,100M€ would be obtained in social contributions.

3.2 Details of the main expenditure measures

The expenditure measures with greater quantitative impact contained in the plan affect expenditure on pensions and other social benefits. In the GG the measures with a greater quantitative impact affect expenditure on pensions and other social benefits such as dependency, paternity leave or co-payment.

TABLE 6. NEW EXPENDITURE MEASURES FOR 2019: BUDGETARY PLAN AND AIREF EVALUATION (MILLIONS OF EUROS)

Expenditure measures	Budgetary Plan 2019*	AIReF estimate 2019
Revaluation of pensions to the CPI and increase of minimum and non-contributory pensions to 3%	736	843
<i>Pension revaluation to CPI</i>		518
<i>Increase of minimum and non-contributory pensions</i>		325
Measures quantified jointly in the Budgetary Plan	1.318	1.318
Improve minimum and agreed level of dependency.		515
SS caregiver contributions		0
Increase in the minimum wage to 900€ per month		0
Recover subsidy for those older than 52 years		323
Paternity leave of 5 to 8 weeks		300
Minimum income		180
Measures listed in the Budgetary Plan and quantified in the additional information	425	725
Increased funding for scholarships	150	150
Aid for school materials	50	50
Meal aid	25	25
Increase in Science and R+D+i line items	150	150
Support for the production and promotion of film productions in different languages	20	20
Gender Violence Pact	20	20
Depopulation offices	10	10
Elimination of co-payment		300
TOTAL MEASURES	2.479	2.886

(*) The quantification of the measures of the Budgetary Plan was provided in the additional information provided by the MINHAC. The measures that appear quantified together in the Budgetary Plan amount to 1,364 million, but this amount is reduced to 1,318 million according to the additional information provided.

AIRcF considers a greater impact of the compensation for pensioners due the possible deviation between the 1.6% revaluation and the CPI for 2018. Along with the revaluation of minimum pensions to 3%, these measures represent an increase in expenditure on pensions in 2019 valued at 736M€ by the Budgetary Plan. This increase reflects the compensation for a CPI forecast for 2018 higher than the 1.6% agreed in the 2018 GSB, the base effect that this compensation has on expenditure for 2019 and the impact of the improvement of minimum and non-contributory pensions. This forecast is lower than AIRcF's estimates, which forecasts a CPI of 1.8% which leads to a compensation for the deviation of 254M€ and a base effect for 2019 of 265M€. It would be necessary to add the cost of the improvement of minimum and non-contributory pensions amounting to 325M€ to this amount. The total cost of both measures estimated by AIRcF amounts to 843M€, 107M€ more than envisaged in the Budgetary Plan.

The increase in expenditure of 515M€ to improve the financing of the minimum level of the System for Personal Autonomy and Care of Dependent Adults (SAAD in the Spanish acronym) impacts the CA deficit. The Dependency policy is reinforced in the 2019 Budgetary Plan by improving the amount allocated to finance the minimum level, recovering the financial agreements between the State and the Regions to get closer to the distribution of 50%. This measure will have an impact of 515M€ in 2019 and it will materialise via transfer between the Public Administrations. It entails an increase in expenditure for the CA, with final allocation to the Regions, which are the ones that will incur the expenditure, although without impact on their deficit.

The recovery of social security contributions on behalf of non-professional caregivers will have no effect on the deficit of the GG. This measure involves the CA paying contributions to Social Security in favour of non-professional caregivers through the special agreement in the Social Security System. The supplementary information to the Budgetary Plan provides for 315M€, in line with AIRcF's estimates. The net effect in 2019 is null in the consolidated accounts, as the payment by the State means expenditure incurred by the CA, but at the same time it entails revenue for the SSF. The impact on expenditure of this measure will occur in the future through the generation of greater pension rights.

The cost of the re-establishment of the unemployment benefit for people over **52 years is in line with AIRcF's estimates.** This change also includes establishing the calculation of income on the basis of the beneficiary and not of the family unit and abolishes the obligation of having to take early retirement when it is received. In addition, the minimum contribution base to Social Security during its receipt is once more set at 125% of the minimum wage. As a whole, the

return to the 2012 legislation will have an impact of 323M€ in the budget for 2019 according to the Budgetary Plan, in line with AIReF's estimates.

The progressive equalisation of paternity leave to maternity leave in the 2019-2021 period implies a higher deficit for the SSF. For 2019 paternity leave is extended from 5 to 8 weeks, which means an increase in expenditure on benefits close to 300M€ in 2019. This estimate is consistent with the increase in expenditure that resulted from increasing paternity leave from 4 to 5 weeks.

AIReF's estimate of the cost of the minimum living income is in line with that contained in the Budgetary Plan. The Budgetary Plan envisages the creation of a minimum living income that is initially substantiated in an improvement of the dependent child allowance. The progressive increase of the dependent child allowance for vulnerable families and the creation of an income guarantee programme for families with very low incomes is envisaged. Initially, in 2019 the benefit will increase from 291€ to 473€ per year. This measure appears in the information supplied with the Budgetary Plan with an impact of 184M€. By identifying the receiving households of the child allowance and the increase in the amount (182 euros/year per dependent child) through the Living Conditions Survey 2017 (latest published) we can estimate the budgetary impact at 190 million euros, therefore in line with the forecasts of the Budgetary Plan.

The Budgetary Plan also includes an account of the measures that are not accompanied by an economic assessment. However, based on the additional information provided by the MINHAC or AIReF's own estimates, such measures have been incorporated into AIReF's scenario as higher expenditure. With impact on the budget of the CA, it is worth noting the increase in the Science and R+D+i items, an increase in scholarships, support and promotion of cinematographic productions or programmes against gender-based violence, which, as a whole, are valued at about 425M€.

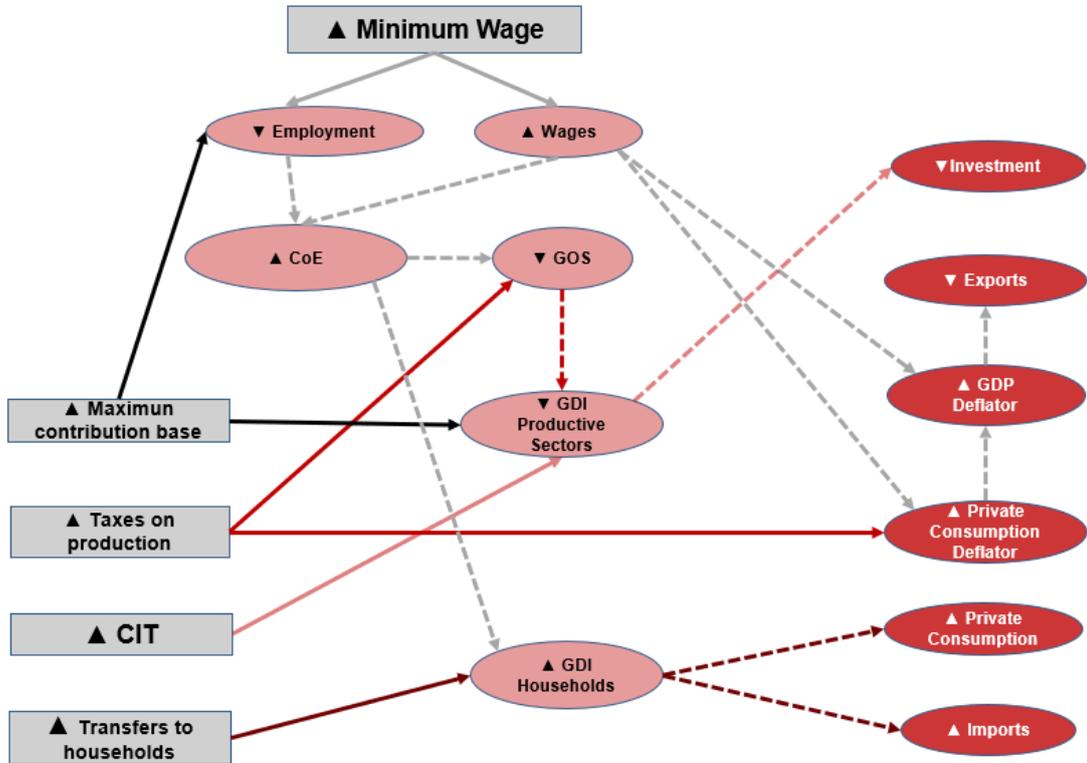
AIReF estimates an impact of approximately 300M from the abolition of the pharmaceutical co-payment to pensioners. This measure implies an increase in expenditure by the Regions. Although the Budgetary Plan does not include a quantification of the measure, AIReF has incorporated this estimate into its scenario, which has considered that several Regions already have co-payment aid in force.

4 MACROECONOMIC IMPACT

4.1 Methodology and transmission channels

AIReF has made its own estimate of the macroeconomic impact of the different measures included in the 2019 Budgetary Plan. To perform this analysis, it is important to consider that the action of the PAs will affect the behaviour of the different agents, and that the higher revenue arising from a particular measure in a few PAs will pose a greater expenditure in others, and vice versa. The economic impact of the new measures is primarily transmitted through the accounts of households and companies, until it finally affects the various components of demand, as can be seen in figure 5.

FIGURE 5. EFFECT OF THE MEASURES IN THE MACROECONOMIC SCENARIO



The starting point will be a scenario with no policy change (inertial). It will be modified by the estimate made by AIReF of the economic policy measures envisaged in the Budgetary Plan.¹ These can be summarised as follows:

- Increase in the Minimum Wage
- Change in the Corporate Income Tax
- Tax on Financial Transactions
- Tax on certain Digital Services
- Green Taxation
- Increase in the PIT rate on high income
- Increase in Public Expenditure (transfers to households)

¹ The measures are included with sufficient scope to affect the behaviour of the main macroeconomic variables. For each measure the central estimate of the range of fiscal impact is used.

- Increase in the Maximum Contribution Base

The methodology used by AIReF to estimate the macroeconomic impact of the measures is based on the combination of various techniques. To estimate the impact of the new measures on the inertial macroeconomic scenario a combination of techniques was used. For each macroeconomic variable, the final impact of the measures is defined as the difference between the final macroeconomic scenario (**calibrated based on AIReF's central impact estimate**) and the inertial scenario described above. These may be summarised as follows:²

- Micro-econometric techniques: for the estimation of the impact of the average wage increase resulting from the rise of the minimum wage.
- Behavioural equations of the main variables of demand, employment and wages to which the shock arising from the measures is applied.

Integration and conciliation of the macro variables in a simplified system of national accounts that relates the flows between the various institutional sectors.

4.2 Impact of the main measures

The macroeconomic impact of the measures included in the plan is moderate - neutral in real terms and positive in nominal terms - although there are downside risks beyond 2019. The various measures simulated have compensatory effects on economic activity, with a neutral final impact on real GDP. There is a certain composition effect on the various components of demand, where it is possible to observe: (i) a slight rise in private consumption (+0.1%) due to the predominant income effect on the fall of employment; (ii) a fall in investment due to the deterioration in gross operating surplus and rising labour costs (-0.2%); (iii) fall in exports due to a loss of price competitiveness resulting from the rise in prices and wages; (iv) employment suffers a slight fall (-0.1%), associated to a large extent to the rise in the minimum wage. The greatest uncertainty concerning the impact of the effects is transferred to the

² The description of the last two is available in the [Methodology of the Macroeconomic and Budgetary scenario for 2018 and 2019 under the assumption of constant policy](#)

medium term, beyond 2019, as there could be additional negative impacts, in particular in employment and investment.

The rise in the minimum wage will increase the average wage, but job creation will remain dynamic. The overall impact on economic activity will be positive. On the one hand, the higher minimum wage will affect households by increasing their compensation and therefore their disposable income for increased consumption. This effect would be reinforced with the direct transfers to households that are included among the measures highlighted in the Budgetary Plan. In contrast, the productive sectors will find their ability to invest with the resources generated in the financial year reduced, which could lead to a reduced ability to create jobs. In this sense, the higher cost of the labour factor could act as an incentive for firms to substitute labour for capital goods in their production processes. This increase in compensation per employee will ultimately contribute to an increase in the GDP deflator (deflator of compensation of employees) and ultimately an increase in domestic prices that will entail a loss of competitiveness with the consequent reduction effect on exports (see Annex 1).

The new taxes on production will have a negative impact on investment and a positive effect on the price of end-consumer products. On the other hand, the new taxes on production (e.g. on financial transactions and digital services) will decrease the gross operating surplus in the income table, leading to negative effects on recruitment and productive investment, and higher prices on consumption of taxable production, which will ultimately have an upward effect on the GDP deflator (see figures 5 and 6).

The extent of green taxation or increase in the tax on hydrocarbons has an additional price effect. In particular, the effect of the green taxation measure (revenue of approximately 670M€) on the general CPI could be approximated through the structural CPI equation, by a comparable rise in the price of crude oil. To calibrate the rise in the price of crude oil, data from the fuels distributor CLH can be used, according to which diesel A consumption (does not include transport, only passenger cars) represents approximately 55% of total fuel consumption. Assuming a rise of around 12% for passenger car diesel, one could assume an increase in the price of crude oil equivalent of 6%, which could have an impact of up to 0.1% on the CPI.

In the short term the increase in the maximum bases means an additional cost to the employer, although less than the total amount of the measure as it is partially translated to wages. The literature on the economic impact of social contributions tends to consider that its impact falls primarily on wages more than on the labour cost for the company. However, to the extent that the maximum bases do not have a perfect correlation with the corresponding

pensions, their increase could not be considered to be entirely deferred salary and partially affect the cost to the company. In addition, with regard to its accounting impact on compensation of employees, this would be translated to the disposable income of households and, therefore, nor to consumption.

TABLE 7. IMPACT OF THE MEASURES IN LIGHT OF AIREF'S MODELS

	MACRO BALANCE without measures		Impact measures		MACRO BALANCE without measures	
	2018	2019	2018	2019	2018	2019
GDP AND DEMAND						
<i>(% variation)</i>						
Real GDP	2,6	2,3	0,0	0,0	2,6	2,3
Private consumption	2,1	1,7	0,0	0,1	2,1	1,8
Public consumption	1,4	1,4	0,0	0,0	1,4	1,4
GFCF Capital Goods and Biological Resources	6,1	3,5	0,0	-0,1	6,1	3,4
GFCF Construction and Intellectual Property	6,1	5,9	0,0	-0,3	6,1	5,6
Exports	3,2	3,5	0,0	-0,2	3,2	3,3
Imports	4,0	3,8	0,0	0,0	4,0	3,8
Nominal GDP (% variation)	3,8	4,0	0,0	0,2	3,8	4,2
EMPLOYMENT AND PRICES:						
<i>(% variation unless otherwise indicated)</i>						
GDP deflator	1,2	1,8	0,0	0,2	1,2	2,0
Private consumption deflator	1,6	1,5	0,0	0,2	1,6	1,7
Compensation by employee	1,9	2,3	0,0	0,5	1,9	2,8
Total FTE employment	2,6	2,0	0,0	-0,1	2,6	1,9
Productivity per employed person €	0,0	0,3	0,0	0,1	0,0	0,4
Nominal unit labour cost (ULC)	1,9	2,0	0,0	0,4	1,9	2,4
Unemployment rate (% active population)	15,1	13,5	0,0	0,1	15,1	13,6
Gross operating surplus	2,5	3,4	0,0	-0,5	2,5	2,9

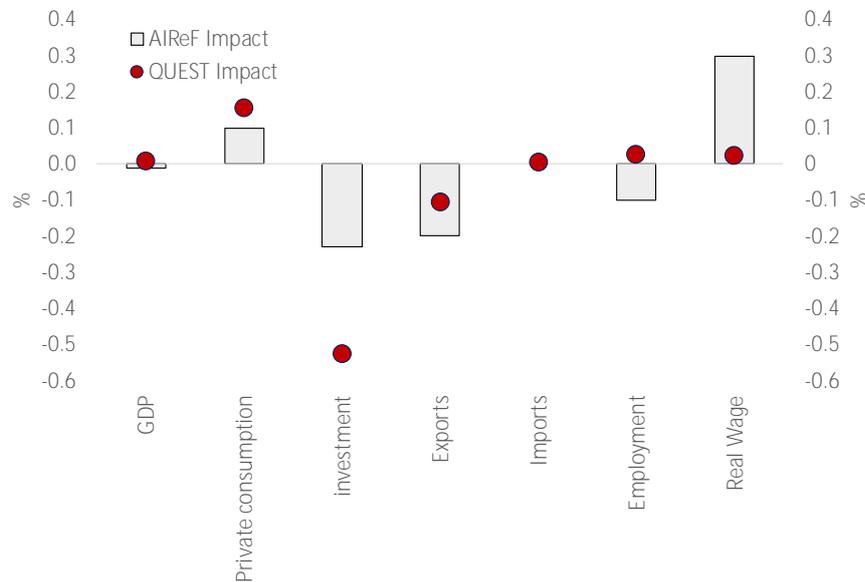
4.3 Robustness exercise with the QUEST model

AIReF has carried out a robustness exercise based on a general equilibrium model to contrast the estimated macroeconomic impact described in the previous section. To calibrate the macroeconomic impact of the different tax measures provided for in the 2019 Budgetary Plan the dynamic stochastic general equilibrium model (DSGE) developed by the European Commission, QUEST III, is used (see Annex XX for a summary of its main features). With the aim of introducing the various measures into the DSGE model the central evaluations made by AIReF in terms of tax collection and public expenditure are used as a basis. In particular, the following measures will be simulated:

- Change in the Corporate Income Tax
- Tax on Financial Transactions
- Tax on certain Digital Services
- Green Taxation
- Increase in the PIT rate on high income
- Increase in the Maximum Contribution Base
- Increase in the Minimum Wage
- Increased Public Expenditure

The wealth of the transmission channels defined in the QUEST model allows the various measures to be incorporated in an integrated framework of general equilibrium, defined by the optimising behaviour of the economic agents. To introduce the first three measures, increases in the tax rate on the capital produced by increases in collection equivalent to those estimated by AIRcF (1.9 p.p. in the case of the CIT, 0.7p.p. for Financial Transactions and 0.8 p.p for certain Digital Services) were calibrated. The increase in the taxation of hydrocarbons according to their emissions was simulated through an increase in the effective rate on consumption of 0.1p.p. (equivalent to an additional 670 million euros of collection expected to be obtained), as a specific tax on hydrocarbons does not exist in QUEST. The increase in the PIT rate on high incomes is simulated by raising the effective rate of the tax on the work of highly skilled workers in the amount that allows the expected collection increase to be reached, estimated at 0.2p.p. The increase in the maximum contribution base, in the absence of this concept in QUEST, is introduced into the model as an increase in the labour costs faced by companies equivalent to the 1,000 million euros estimated additional collection. The rise in the minimum wage is introduced into the model through an increase in the consumption of cash restricted consumers envisaged by the model, combined with an increase in labour costs for low skilled workers. Finally, the increase in public expenditure was simulated by introducing a shock equivalent to 0.2% GDP on this variable into QUEST.

The results of the **simulation with QUEST III are relatively in line with AIRcF's** estimates. The measures that increase tax revenues have a slight negative effect on GDP. These contractionary effects are offset by the increase in public expenditure. The set of measures considered has effects on the main macroeconomic variables that are summarised in the following figure, which compares the effects measured by QUEST with those initially estimated.

FIGURE 6. AGGREGATE ECONOMIC IMPACT OF THE MEASURES


4.4 Second round impact

The measures of the Budgetary Plan have a positive knock-on or second-round effect on public revenue. AIRcF has estimated the effect of the measures themselves in the macroeconomic environment and their subsequent impact on the revenue of the Public Administration, taking the inertial scenario with no policy change as its starting point. Of the measures included, the increase in the minimum wage and the creation of new taxes directed at companies along with the new configuration of the CIT will have the greatest affect on the rest of the institutional sectors and therefore the economy as a whole.

These effects represent an increase in collection from PIT, VAT and social security contributions and a decline in CIT. PIT will be affected upwards, due to the increased average wage, and downwards, due to the possible fall in employment. The movement of VAT will largely depend on household consumption in nominal terms. For its part, CIT will also be affected by the change in the macroeconomic scenario as their disposable income will decline. Regarding social security contributions, an increase of approximately 0.5p.p. is expected due to the increase in the average wage, which will be partially offset by lower job creation, as in the case of PIT. This effect on contributions is **already included in the estimate of 1,500M€ mentioned above.** The following table details these effects.

TABLE 8. EFFECT ON COLLECTION OF THE MACROECONOMIC CHANGE DUE TO MEASURES

	Macro impact		Shock macro variables (% var.)				
	Million €	% var.	Wages	Employment	GOS	Real private consumption	Private consumption deflator
PIT	250	0,3	0,5	-0,1			
VAT	200	0,3				0,1	0,2
Corporate tax	-200	-0,8			-0,5		
Contributions	450	0,4	0,5	-0,1			

AIReF's forecasts considered the possible neutralisation of the negative effect of the VAT IIS on the 2017 settlement of the system resources of the Regions and LGs, a neutral measure for the GG. In addition to the above measures related to the Budgetary Plan, AIReF's scenario has incorporated, based on the information provided by the MINHAC, the estimate of the resources that would be transferred from the State to the Regions and LGs to neutralise the effect that the VAT IIS approved in 2017 has on the settlement of system resources. This measure, which was not included in the Budgetary Plan, would not affect the GG but the distribution by sub-sector.

5 ANALYSIS OF THE BUDGETARY PLAN 2019

5.1 Analysis of the macroeconomic scenario

5.1.1 Exogenous assumptions

The basic assumptions underlying the macroeconomic scenario for 2018 and 2019 of the Draft Budgetary Plan 2019 are considered feasible. This scenario presents a few plausible assumptions in relation to the most recent forecasts of the European Central Bank and other international agencies. In addition, it is in line with the latest developments in the commodity and debt markets (see table A2 in annex). With respect to the 2018 Status Report on the Spanish Economy from July, the external assumptions have experienced a downward revision in most cases. World growth is revised downwards, in line with the forecasts by the European Central Bank and other international agencies. In the same way, growth for the euro zone is lowered, with an especially intense drop for Spanish export markets. This weaker growth in export markets could be offset by the anticipated lower appreciation of the euro against the dollar. Expectations regarding oil price developments are higher than the forecasts by international agencies, but lower than the prices of futures markets. Finally, the assumptions related to the long-term interest-rate yield curve are considered prudent, maintaining a positive differential with respect to the market expectations inherent to the *forward* curve.

The behaviour of the price of oil expected by the Government stands slightly above the forecasts by the main international agencies. The depreciation of the euro in the second half of the year, tensions in producer countries such as Venezuela, the expectation of a cut in exports from Iran, due to the imposition of sanctions by the US, and the unexpected cuts in production in Canada and Libya have stimulated the crude oil price well above what is expected in the

SPU 2018 - 2021. In the past 12 months, the price of a Brent barrel in dollars has grown 34%, standing slightly above 80 dollars per barrel in mid-October. The markets expect that prices will remain below the threshold of 80 dollars per barrel, both at the end of 2018 and throughout 2019, without the agreements reached by the OPEC countries (and Russia) in August to increase production being sufficient to achieve a gradual decline in prices. The expected growth in oil prices will have a slight impact in terms of higher import costs, higher inflation and lower real disposable income. In addition, it will have an indirect negative effect on economic growth, although not very significant.

The Government forecasts a slowdown in the growth of world GDP and in the euro zone, in line with the main international agencies. Global activity continues to grow, although less strongly. The Government expects that global growth will fall below 4% in 2018 and 2019, in line with the forecast of the ECB and the IMF and below that estimated by the European Commission. According to the IMF, the downward revision is due in part to: (a) the negative effects of protectionist measures introduced since April, b) downside surprises in Europe, (c) the weakness of some emerging economies caused by the harshening of financial conditions (that have generated considerable instability in economies like Argentina and Turkey) and (d) various specific geopolitical risks. Growth presents greater imbalances between countries at the global level, with the slowdown in the euro area and the United Kingdom standing out. In fact, the Government has revised its forecast for GDP growth in the euro zone downward by 0.1% for this year and the next, in line with the latest forecasts from the ECB. The weakening of world trade will impact Spanish export markets and the Government assumes that they will grow by 3.6% in 2018 and a 3.8% in 2019, with an intense downward revision compared with the forecasts from July 2018.

The Government hypotheses regarding the performance of public-debt securities are at levels comparable to market expectations. The profile forecasted in the macroeconomic scenario for the interest rate on Spain's ten-year government debt shows a rate of 1.6% in 2018 and an increase to 1.8% in 2019. This rates profile stands slightly above the yields implied in the futures markets. In addition, both the Government and the ECB expect that short-term interest rates will remain in negative terrain in the next two years. While it is true that the ECB expects to maintain interest rates at minimum levels at least until the summer of 2019, in June 2018 it announced that from October it would reduce the amount of the monthly asset purchases from 30,000 to 15,000 million euros. In this sense, the progressive standardisation of monetary policy could mean that rates will pick up in the medium term.

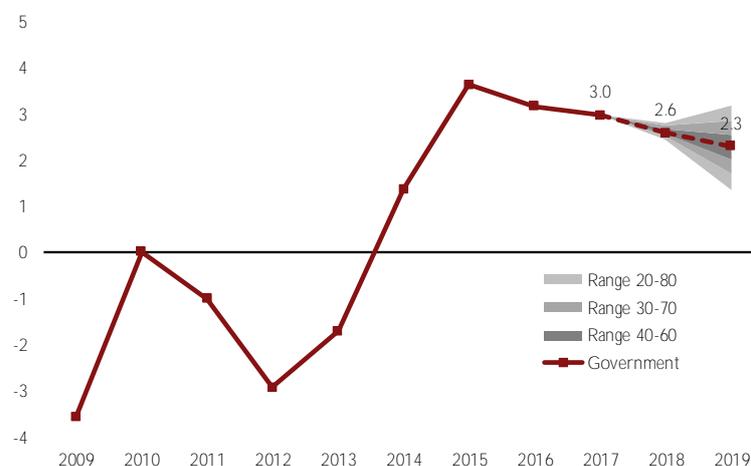
The Government and the main forecasting centres expect that the euro-dollar exchange rate will stabilise, following the appreciation of the euro in the first quarter of the year and its subsequent depreciation. As a result, the ECB has lowered its forecast of appreciation of the nominal effective exchange rate of the euro to 4.4% 2018 and estimates that in 2019 there will be a slight depreciation, which could partially offset the anticipated slowdown in external demand.

5.1.2 Ex-ante analysis of the forecasts

As a result of the analysis conducted in the previous sections regarding the inertial scenario and the potential impact of the measures, sustained growth is expected over the next few years in line with the maturation of the economic cycle, growing by 2.6% in 2018 and 2.3% in 2019. After a slow start and a downward shift in growth expectations, the information provided by the short-term indicators throughout the third quarter seems to ultimately consolidate the rate of progress observed in the first six months in the second half of 2018, with quarter-on-quarter rates of close to 0.6%-0.7%, and points to an annual rate of around 2.6%. Although the global uncertainty has moderated the short-term outlook it is still expected that the euro area will continue to grow at a rate above its potential. This dynamism, along with a monetary policy with a very accommodative stance, will foster growth close to 2.3% for 2019 in the absence of additional disturbances.

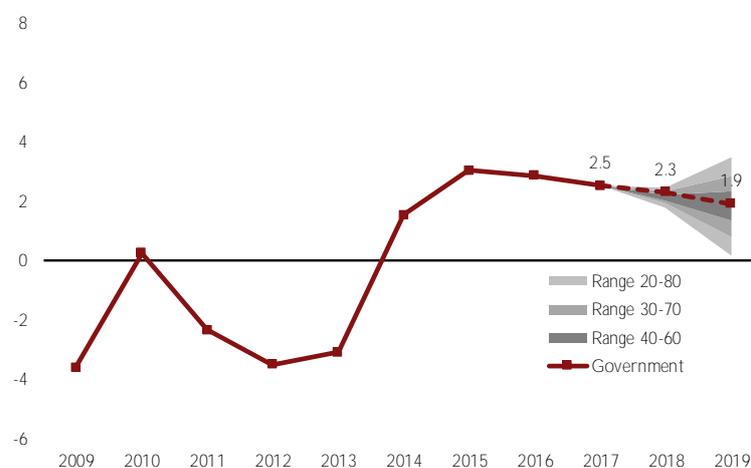
The growth profiles forecasted for 2018 and 2019 presented in the Draft Budgetary Plan, as well as their composition, are considered to be plausible. Looking at the breakdown of growth for 2019, the upward correction of domestic demand, offset by the suppression of the positive contribution of external balance, is considered feasible. It is necessary to highlight some asymmetry in the distribution of components, since the greater dynamism in domestic demand is concentrated in better investment behaviour. The growth profile included in the macroeconomic scenario accompanying the Draft Budgetary Plan 2019 is in line with that projected by AIRcF and the other private analysts. However, it is slightly below the projections of the previous Stability Programme Update from April and the approval of the Expenditure Ceiling in July (2.7% in 2018 and 2.4% in 2019).

FIGURE 7. REAL GDP FORECASTS (% VAR)



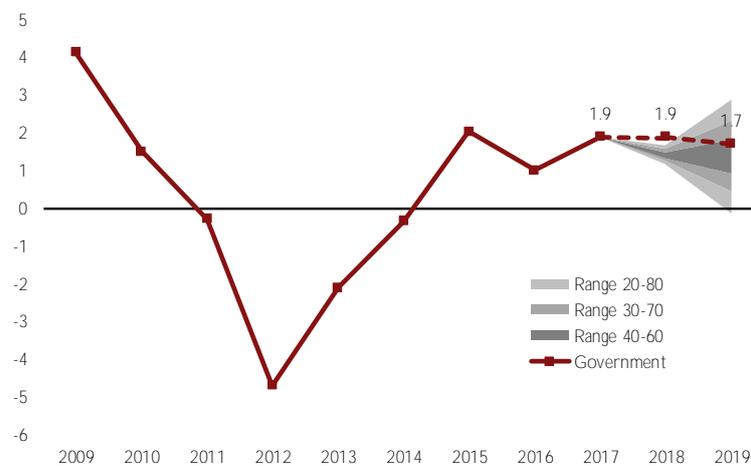
A significant moderation of growth is expected in private consumption, higher than that observed last year. The official scenario foresees a growth rate of private consumption of 1.9% for 2019, after forecasting 2.3% for the current year. The causes for its sluggishness would first be determined by the slower pace of job creation associated with the slowdown of GDP, where despite the expected acceleration in real wages, the literature notes the lower impact of the latter in relation to the volume of employment when effecting changes in consumption. Second, the savings rate seems to have reached a low, so there is limited scope for households to increase their consumption in this way. In any case, the magnitude of this slowdown in private consumption is in line with the consensus of panellists.

FIGURE 8. PRIVATE CONSUMPTION FORECASTS (% VAR VOLUME)



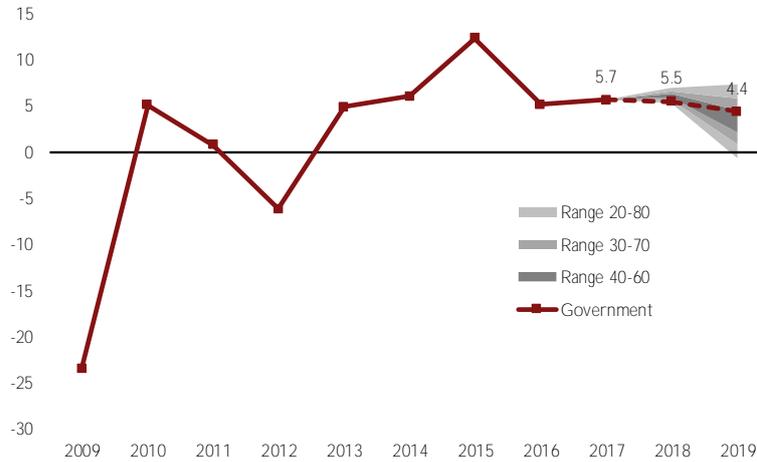
However, in the case of public consumption its expected growth for 2019 has been substantially revised upwards. Regarding public consumption the Government forecasts growth of 1.9% for 2018, which is above AIReF's confidence interval, but within the panellists' interquartile range. For 2019, the Draft Budgetary Plan revises the growth forecast upwards to 1.7%, standing in the middle of AIReF's range and the average of public and private forecasts.

FIGURE 9. PUBLIC CONSUMPTION FORECASTS (% VAR VOLUME)



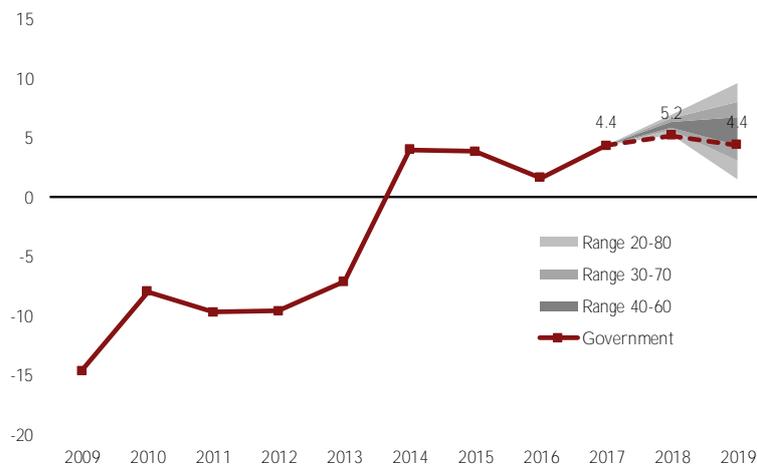
Regarding capital formation, the official forecast of productive investment for 2019 has been revised upwards with respect to the July update. On the side of productive investment, the Government forecasts an advance of 4.4% in 2019. The favourable financial position of companies and the maintenance of low interest rates will determine its dynamism. Additionally, although the official forecasts are within the confidence interval provided by AIReF's models, they are somewhat optimistic. The same applies when they are compared with the forecasts of the panel or other public institutions, such as the Bank of Spain (3.8%). In any case, its growth is expected to drop with respect to 2018, mainly due to the lower momentum of domestic demand.

FIGURE 10. FORECASTS FOR INVESTMENT IN EQUIPMENT AND CULTIVATED ASSETS (% VAR VOLUME)



In turn, in the case of investment in construction and intellectual property the **Government's forecast is more moderate than AIReF's**. The maintenance of good mortgage financing conditions and the reduction in the unemployment rate will continue to be decisive in investment in construction. With respect to July, the Government has revised its forecast for 2019 upward slightly, placing it at 4.4%. Although its figures are above the panellists' interquartile range, they fall broadly within AIReF's confidence intervals.

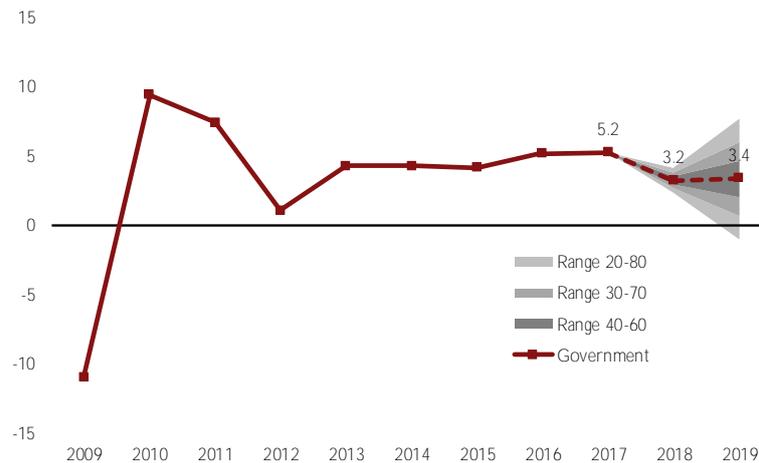
FIGURE 11. FORECASTS INVESTMENT IN CONSTRUCTION AND INTELLECTUAL PROP (% VAR VOLUME)



The contribution of exports to growth in 2019 has been revised downward. Government figures place its progress at 3.4% for 2019, which is in the middle of AIReF's confidence interval. This fact has been conditioned by the lowering

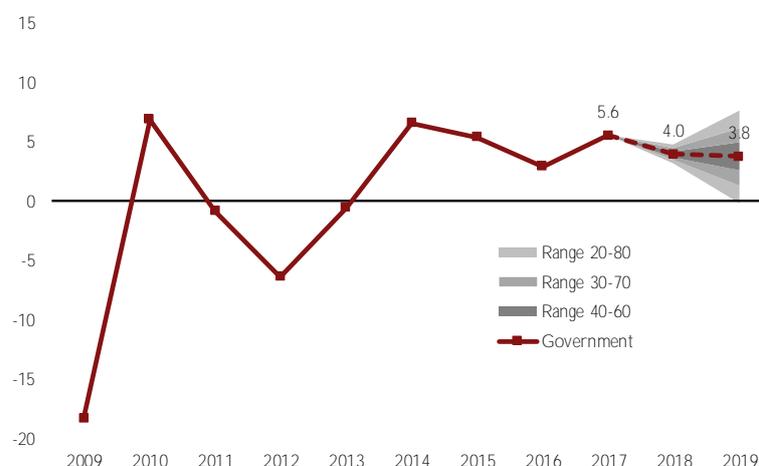
of growth forecasts for exports, a result of worsened expectations for developments in world trade.

FIGURE 12. FORECASTS FOR EXPORTS (% VAR VOLUME)



In addition, the forecasts for imports in 2019 have been lowered. Consistently with the lower momentum of final demand (although to a lesser extent than exports) the growth of imports for 2019 is estimated at 3.8% in the Budgetary Plan. This figure stands fully in the centre of the intervals estimated by AIRcF. It should also be noted that, for both exports and imports, forecasts are contained within the interquartile range of the panel of panellists in 2019.

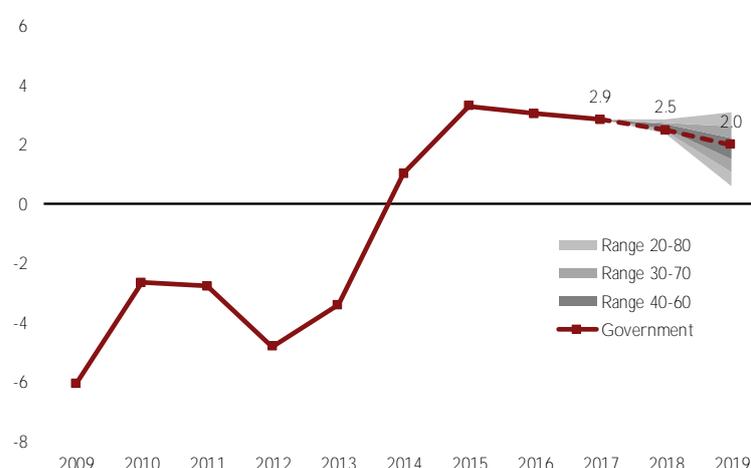
FIGURE 13. FORECASTS FOR IMPORTS (% VAR VOLUME)



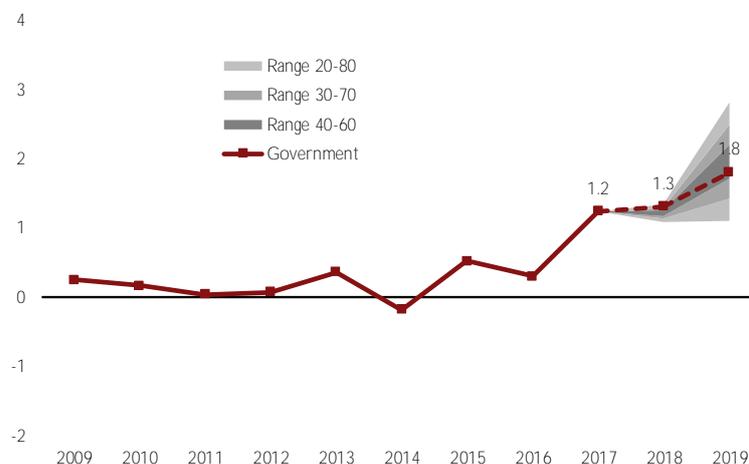
In keeping with the decline in economic growth expected for 2019, the forecast for employment has been revised downward. For 2019 the

Government expects employment to progress by 2.0%, which, taking into account the forecast made for GDP, would mean registering productivity around 0.3%, thus prolonging the trend observed in the last four years. This rate of progression in employment stands in the middle region of the interval of AIReF's models and within the interquartile range of the panellists. In any case, the behaviour of employment, along with the moderate growth of the active population, would reduce the unemployment rate to approximately slightly below 14% as forecasted by the Government.

FIGURE 14. FORECASTS FOR EMPLOYMENT (% VAR VOLUME)



It is still expected that prices will gradually converge to the target reference level in the euro area. Despite the downward revision of GDP deflator made by the Government in 2018, its growth is raised by 0.1% for 2019. This evolution is plausible and is very similar to that obtained by AIReF's internal models. In turn, the forecast for the private consumption deflator in 2019 (1.8%) is very similar to the evolution of the GDP deflator, a figure about 0.2% higher than the forecast for price growth made by the European Commission (1.6%) and 0.1% higher than that of the Bank of Spain (1.7%). The gradual increase in underlying inflation will be behind this behaviour, which will not be aggravated by a substantial increase in external inflationary pressures resulting from additional increases in oil prices. Considering the growth of GDP in volume and prices, these are translated into a growth of nominal GDP of around 4.1% for 2019, somewhat more expansive than the figure for 2018.

FIGURE 15. FORECASTS FOR GDP DEFLATOR (% VAR)


Finally, the official forecast for wages is relatively contained. Finally, the evolution of compensation per employee for 2019 is considered to be more moderate in relation to that forecasted by AIRcF, slightly above the growth of the general price level. This greater growth in compensation will partly be a result of the impact of the collective bargaining agreements signed and the proposed increase in the minimum wage. It follows that with the aforementioned behaviour of productivity there will also be an acceleration in the growth of unit labour costs.

5.1.3 Risks and uncertainties

The scenario of risks on global growth shows certain tensions that would imply a smaller contribution of external demand. In the short term, some of these risks stem from the intensification of protectionist tensions, which may negatively affect world trade. In addition, the standardisation of monetary and financial conditions in the advanced economies could have destabilising effects on certain emerging economies. On the other hand, increasing risks are identified in the medium term. There is concern about a potential escalation of protectionist tensions that would lead to a departure from the principles of the multilateral system of trade relations, generating a growing uncertainty that would erode confidence and raise market volatility. In the same way, a harshening of the financial conditions in developed economies could highlight the financial imbalances accumulated in terms of high levels of public and private debt. The withdrawal of fiscal stimulus in the US from 2020 and a lower growth in China, caused by protectionist policies and by the lower dynamism of credit, could hinder global growth. This economic and political uncertainty would negatively affect global trade (that shows progressively

lower growth rates since the beginning of 2018) and negatively impact external demand and Spanish economic growth.

The Government's forecasts for oil prices are below market expectations, identifying a risk in the medium term. In 2018 the price of crude oil has experienced a significant increase, reaching a maximum of 85 dollars per barrel at the beginning of October (representing an increase of 20% compared to the floor seen in July 2018). In the last few days, however, there seems to be a reversal, with prices stabilising close to \$80. The estimates indicate that a permanent 10% increase in the price of oil would have a negative impact on growth of about 0.1% in the short-term and would increase as time goes on.³ If the oil price increases more than expected in a sustained manner, the negative impact on economic growth could be even greater in the medium term.

At European level, there are specific risks linked to Brexit and the situation in Italy. On the one hand, the UK's exit from the European Union scheduled for March 2019 may have negative consequences on trade and financial flows, especially if a final agreement is reached. This is in addition to the uncertainty generated by the fiscal situation in Italy. The change in the Italian fiscal policy toward a more expansionary stance, tripling the targets laid out in terms of public deficit to 2.4% GDP for 2019, has given rise to a sharp increase in its risk premium. The European Commission's requirement that Italy presents a revised Draft Budgetary Plan that meets the recommendations of the Council could further intensify tensions. The contagion effect to debt markets in other countries in the Euro zone, in a context of doubts about compliance with budgetary stability commitments, would have a negative impact on European economies.

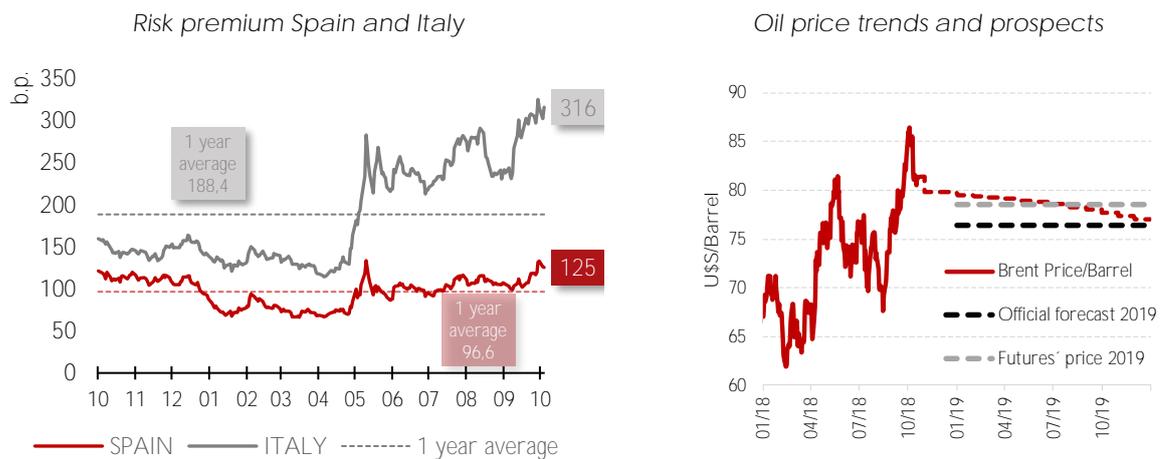
However, the Spanish risk premium has remained fairly stable. Markets appear to differentiate between fundamental risks and the risks arising from the economic and budgetary situation of both countries and no risks of contagion are observed in the short term. It must be considered, however, that contagions of this kind usually appear abruptly and in a non-linear way, very conditioned by abrupt changes in agents' expectations.

³ See Table 2 of the [Report on the Update of the Stability Programme of the Kingdom of Spain 2018-2021](#)

FIGURE 16. RISKS FOR MEDIUM-TERM GROWTH

1 Uncertainty on compliance with the fiscal rules in Italy has led to an escalation of the Italian risk premium above 300 basis points. However, the risk premium has remained stable, although tensions in public debt in Italy have given rise to two episodes of recovery in the Spanish premium in May and October.

2 In 2018 the price of crude oil has experienced a significant increase, reaching a maximum of 85 dollars per barrel at the beginning of October (representing an increase of 20% compared to the floor seen in July 2018). In the last few days, however, there seems to be a reversal, with prices stabilising close to \$80.



Source: Own processing based on DataStream

5.1.4 Ex-post bias analysis: 2014-2017

5.1.4.1 Forecast comparison criteria

The Government's previous macroeconomic forecasts were analysed with the aim of identifying whether there have been significant biases. This section conducts an analysis of the official forecasts for the current year and next year (i.e., t and t+1) formulated in previous autumns. First, the Government's forecasts are compared with those of other private institutions, with the aim of identifying the presence of significant biases. The data used for drawing the comparison were taken from the panel of forecasts published by FUNCAS in the September of 2014 to 2017. The forecasts of the European Commission, the Bank of Spain, the OECD and the IMF are not included in the calculation of comparative statistical data. However, a descriptive comparison is made. Based on the information available for comparison, the main variables of the macroeconomic scenario on the demand side in terms of volume, the

unemployment rate and net lending/borrowing of the GG in terms of GDP are analysed.^{4 5}

A bias in the Government's forecast shall be considered to be a significant bias if it is large, unjustified and repeated for at least four consecutive years. In order to gauge whether a bias has been significant, the Government forecasts (G) are compared against other recent forecasts by private institutions, published in the Consensus forecast (C), and against the observed result (R). A bias is defined as the difference or deviation between the Government's forecast and the Consensus forecast (G-C). For each variable, if the figure projected by the Government falls outside the interquartile range of the distribution of the panel's forecasts, it is considered that there has been a large bias. In turn, a large bias is considered unjustified when the Government's absolute forecasting error is greater than that of the Consensus of panellists (that is, if $|G-R| > |C-R|$). To that effect, the forecasting error is calculated as the difference between the forecast for that variable, and the figure observed corresponding to the first publication of the annual national accounts, which usually takes place between late February and early March of the following year. Finally, a bias is defined as significant if it is considered large, unjustified and systematic (i.e. if it is repeated during the last four years).⁶

5.1.4.2 Biases in the comparison of the main variables

The past year a significant bias in the autumn forecast of public consumption for t+1 was identified once again. In its Report on the Macroeconomic Forecasts of the Draft Budgetary Plan 2018, AIReF reports the existence of large deviations in approximately half of the observations for the past forecasts from the period 2013-2016.⁷ The large biases identified were concentrated in the

⁴ Article 14.4 of the Organic Law establishing AIReF requires this Report to include an assessment of whether the macroeconomic forecasts display any considerable bias over a period of four consecutive years, according to Council Directive 2011/85/EU, of 8 November 2011, on the requirements applicable to member States' budget frameworks.

⁵ Unlike the estimates included in the panel, which tend to be published close to the publication date of the Government's forecasts, the rest of the forecasts excluded are published previously, not including the most up-to-date information and hindering their comparability with the Government's forecasts.

⁶ A detailed description of the methodology can be found in the [Report on the Macroeconomic Forecasts of the Draft General Government Budget 2015](#)

⁷ [Report on the Macroeconomic Forecasts of the Draft Budgetary Plan for 2018.](#)

forecasts of GDP, public consumption, gross capital formation and the deficit-to-GDP ratio. In turn, it was also found that for the same period a little more than half of the large biases were not justified by a better result ex post. As had been seen in the Report on the Macroeconomic Forecasts of the Budgetary Plan 2017, significant biases (i.e., large, unjustified and systematic) were identified once more in the public consumption forecasts for $t+1$.⁸ For this reason, AIReF reiterated its recommendation, previously made in 2017, relating to the adoption and publication of the measures necessary to correct the significant biases observed in the estimates for public consumption.

AIReF received the official commitment on the adoption of measures and is awaiting its publication. The first solution proposed by the Ministry of Economy was based on limiting its public consumption forecast to one that would be included in the interquartile range of the panel's forecast. As AIReF deemed this alternative to be insufficient, the Ministry of Economy subsequently reported in May 2018 that it was already working on improving the models for forecasting public consumption and its deflator. In addition, it was reported that although the practice of limiting the official forecasts, considering the panel's interquartile range, was not an optimal solution, it would be maintained until the new measures were implemented. AIReF is currently awaiting the publication of the details relating to such measures.

In the period 2014-2017 there were large biases in almost half of cases. Moving the analysis window to the four years preceding 2017, it is observed that the presence of large biases in the forecasts remains very significant. In fact, in 2017 the presence of significant biases was detected in 75% of the variables analysed in the forecasts for the following year. It should be noted, however, that the forecasts for 2017 made for the current year were all within the interquartile range, with the exception of public consumption. Performing the analysis by variables, the official forecast for gross capital formation seems to be the most likely to deviate from the panellists' Consensus, as there are large biases in 75% of cases in the period 2014-2017.

Approximately one out of every two large deviations in the official forecasts was unjustified. In the case of public consumption all errors were unjustified. Once the large deviations are identified, a comparison is made with the data observed relating to the first publication of the national accounts. Of this year,

⁸ [Report on the Macroeconomic Forecasts of the Draft Budgetary Plan for 2017.](#)

54% of errors have not been justified by a better result ex post, increasing this percentage to 73% in the case of the official forecasts for the current year. The unjustified deviations are mainly concentrated in the headings of public consumption, imports and deficit-to-GDP. In the first two cases all large deviations were also unjustified. However, in the case of the forecasts for 2017 made in 2016 the percentage of unjustified deviation seems to be reduced to 33%. This could be a sign of improved official forecasting accuracy and will be monitored again in October of next year.

The accuracy and volatility of the official GDP forecasts is similar to those of the Consensus. However, in the case of public consumption and deficit the **Government's forecasting performance is substantially worse**, in particular in the forecasts for the current year. The analysis of the forecasting errors for the period 2014-2017 indicates that, in the case of GDP, the Government's forecasting efficacy was similar to that of the panellists' Consensus, both in terms of accuracy (as measured by the mean absolute error, MAE) and volatility (measured by the mean squared error, MSE). However, if we only consider the forecast for the current year, both the MAE and the MSE associated with the official forecasts are relatively higher (30% and 60%, respectively). At the subheading level, the official forecasts for private consumption are identified as more accurate and less volatile than the consensus, noting an MAE and MSE approximately 10% lower. On the contrary, in the case of public consumption the official forecasts remain more optimistic (i.e. systematically projecting a public consumption lower than that observed) than those of the Consensus and almost 40% more volatile. In this regard, it should be recalled that AIReF estimated that the prudent bias in the growth forecasts observed during the last expansionary phase could be substantially corrected if the Government's forecasting accuracy for public consumption was improved. Finally, the relative worse performance in the public consumption forecast also seems to result in an optimistic bias to the official forecasts of deficit-to-GDP. In particular, these forecasts for the current year have an MAE and MSE 30% higher than that of the Consensus.

Despite the above, **AIReF's analysis does not identify any significant bias in the forecasts for the variables analysed during the 2014-2017 period**. Once cases of large and unjustified biases are identified, AIReF's analysis does not identify their repetition during the last four years, both for the forecasts for the current year and for the following year. In the case of public consumption, the presence of large and unjustified biases identified since 2013 in the autumn forecast for $t+1$ does not seem to have been repeated in 2017.

TABLE 9. MEAN ABSOLUTE ERROR 2014-2017

		GDP	Private consumption	Public consumption	GFCF	Exports	Imports	Unemployment rate ¹⁾	Deficit ²⁾
t	Government	0,1	0,2	0,9	1,3	0,7	2,2	0,1	0,3
	Consensus	0,1	0,3	0,6	1,3	0,7	1,6	0,1	0,2
t+1	Government	0,7	0,9	2,0	2,1	1,0	3,2	0,7	0,7
	Consensus	0,8	1,0	1,4	2,7	0,9	2,8	1,1	0,6
t and t+1	Government	0,4	0,6	1,4	1,7	0,8	2,7	0,4	0,5
	Consensus	0,4	0,6	1,0	2,0	0,8	2,2	0,6	0,4

Source: Own processing based on INE and MINECO

TABLE 10. ROOT OF THE MEAN SQUARE ERROR 2014-2017

		GDP	Private consumption	Public consumption	GFCF	Exports	Imports	Unemployment rate ¹⁾	Deficit ²⁾
t	Government	0,2	0,3	1,3	1,6	0,8	2,6	0,1	0,5
	Consensus	0,1	0,3	0,9	1,5	0,8	2,0	0,1	0,4
t+1	Government	0,8	1,2	2,4	2,2	1,1	3,4	0,9	1,0
	Consensus	0,8	1,4	1,7	3,0	1,1	3,3	1,1	0,7
t and t+1	Government	0,6	0,9	1,9	1,9	1,0	3,0	0,6	0,8
	Consensus	0,6	1,0	1,4	2,4	1,0	2,7	0,8	0,6

Source: Own processing based on INE and MINECO

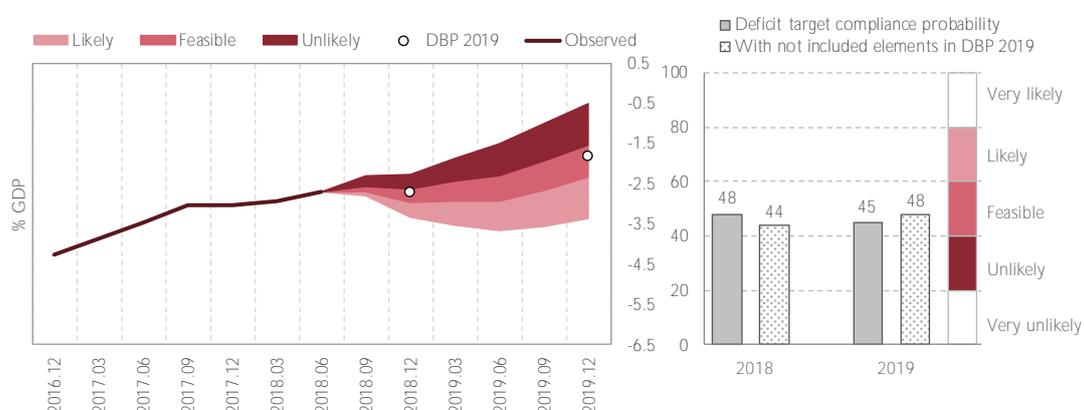
5.2 Analysis of the budgetary scenario of the General Government

AIReF considers compliance with the deficit laid down in the Budgetary Plan for 2019 (-1.8%) to be feasible for the GG, although it believes there is no scope to assume deviations in the estimated impact of the measures. The path envisaged in the Budgetary Plan for the GG represents a consolidation adjustment of 1% GDP in 2019 to reach a deficit of 1.8% GDP. 0 shows the deficit path envisaged in the Budgetary Plan for the GG and AIReF's projections, in a scenario that incorporates its evaluation of the measures announced and where revenue and expenditure will evolve according to the available budgetary information and the results of its own forecasting models. The uncertainties associated with the scenario evaluated show that there is no margin available in the event that the impact of the measures is lower than expected overall.

The probability of achieving the deficit of 1.8% improves, with the baseline scenario standing at 1.9%, by considering two elements not contemplated in the Budgetary Plan. On the one hand, the Budgetary Plan links the rise of the maximum contribution bases to the rise in the minimum wage, although this is

not specified in the Budgetary Plan. Subsequently, the Government has informed AIReF of its intention to increase it by between 10% and 12%. Moreover, according to the latest information received, AIReF considers the impact of the judicial sentence on the granting of Aigües Ter Llobregat moving from 2019 to 2018 to be the most likely scenario. Accordingly, in 2019 AIReF's baseline scenario would shift to 1.9%, while in 2018 it would rise to 2.8% due to this non-recurrent item.

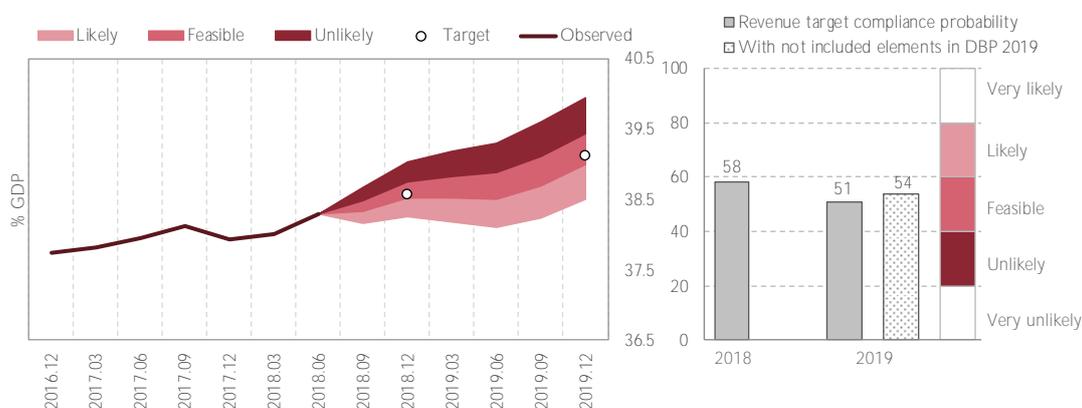
FIGURE 17. 2018-2019 NET LENDING/BORROWING PATH. GENERAL GOVERNMENT IN % GDP.



In response to the risks identified and the deviation of AIReF's baseline scenario with respect to the deficit of 1.8% proposed, it may be necessary to take additional steps to achieve the proposed target. In this sense, it is fundamental to continuously monitor the implementation and impact of the measures, as well as the implementation of the budget in order to react as soon as possible to deviations from the Budgetary Plan.

5.2.1 Revenue forecast

The revenue forecast included in the Budgetary Plan for 2019 is considered feasible. However, AIReF considers a slightly different composition. According to the Budgetary Plan, revenue will increase its weight on GDP by 0.6% to reach 39.1% GDP. This increase is higher than expected by AIReF, around 0.5% GDP, although starting from a higher estimate in 2018 would lead revenue to stand at 39.2% GDP. The difference in the revenue increase between AIReF and the Budgetary Plan is mainly due to the different estimate of the impact of the revenue measures as has been seen in the previous section.

FIGURE 18. 2018-2019 REVENUE PATH. GENERAL GOVERNMENT IN % GDP.


The direct taxes provided for in the Budgetary Plan are increased by 0.2% GDP to reach 10.7% GDP. AIReF considers reaching this level of direct taxes to be likely. The increase in the forecasts for direct taxes (PIT, CIT, NRIT, HT...) primarily contemplate a cyclical gain, since the new measures contained in the Budgetary Plan are offset by the PIT reform approved with the GSB for 2018. To the extent that the Budgetary Plan does not offer a breakdown by taxes, it is not possible to perform a deeper analysis of the evolution of the various taxes.

The estimate of indirect taxes contained in the Budgetary Plan is feasible, **although AIReF's estimates contain a smaller collection of new taxes.** According to the Budgetary Plan, the weight the indirect taxes would increase by 0.2% compared to 2018 essentially due to the creation of new taxes on certain Digital Services and on financial transactions and the increase in the tax on hydrocarbons. Excluding the impact of the measures, the evolution of this heading would be below nominal GDP growth.

The forecast for social contributions is considered feasible, considering the proposed measures. AIReF's estimates are in line with those contained in the Budgetary Plan. However, for 2019 there is additional uncertainty surrounding the impact that the rise in the minimum wage could have on job creation, as noted in the description of the macroeconomic scenario. This estimate improves if the rise in the maximum contribution bases is considered.

FIGURE 19. DIRECT TAXES PATH 2018-2019. GENERAL GOVERNMENT IN % GDP.

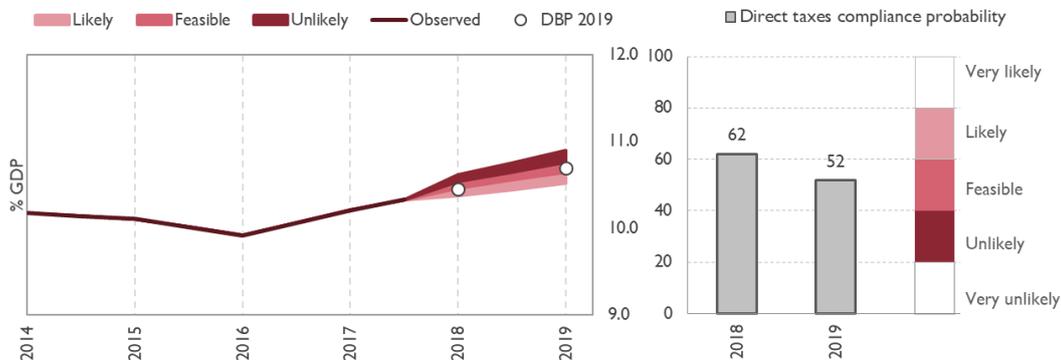


FIGURE 20. INDIRECT TAXES PATH 2018-2019. GENERAL GOVERNMENT IN % GDP.

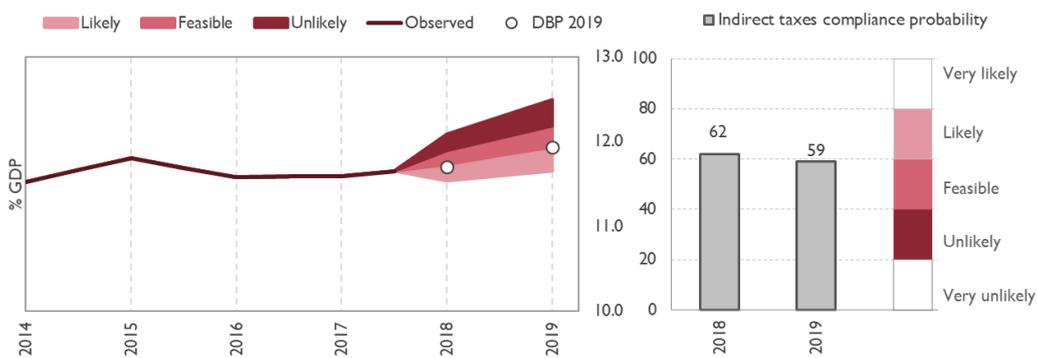
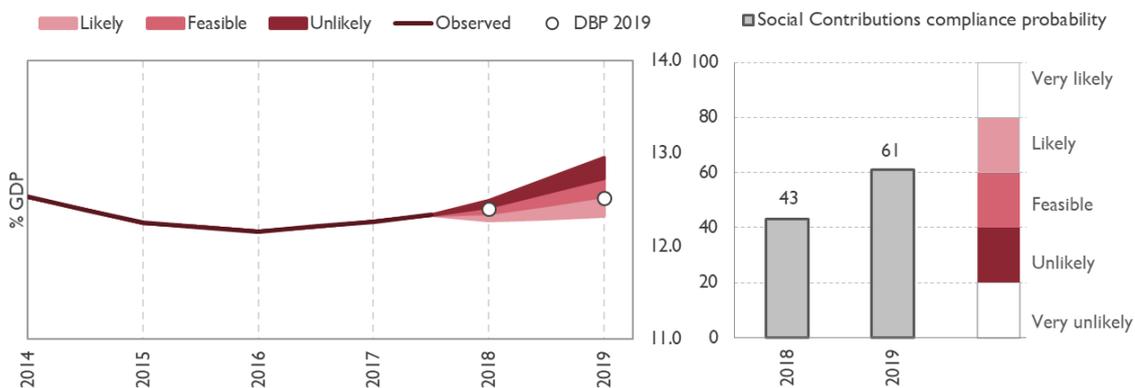


FIGURE 21. SOCIAL SECURITY CONTRIBUTIONS 2018-2019. GENERAL GOVERNMENT IN % GDP.



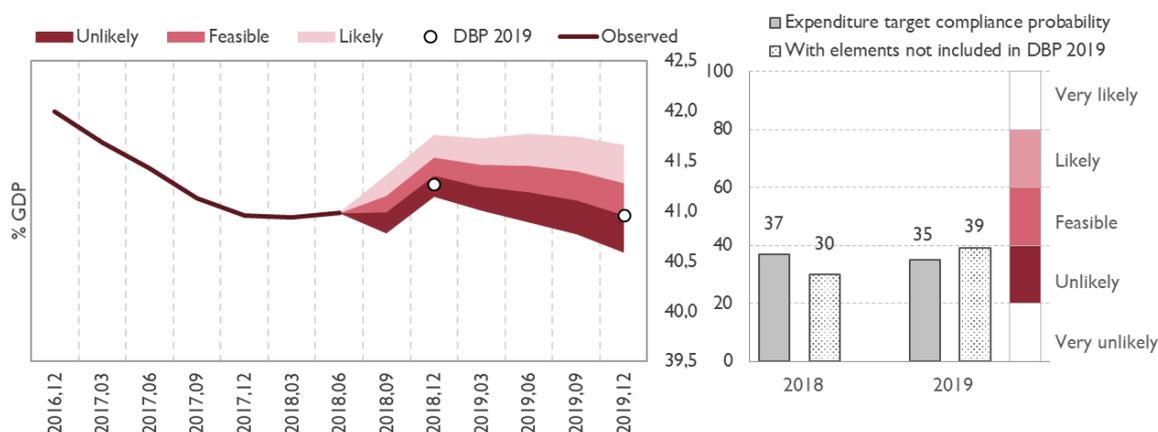
Source: Budgetary Plan, IGAE and AIREF's estimates

AIReF estimates a lower growth in sales and other current revenue than the Budgetary Plan. The Budgetary Plan considers that property revenue will grow slightly below nominal GDP, while the rest of revenue would grow above this level. However, AIReF's estimates forecast lower growth in both cases, which is 0.1% less for these concepts in 2019.

5.2.2 Expenditure forecast

AIReF considers it unlikely to reach the downward path of non-financial expenditure foreseen in the Budgetary Plan. The expenditure path of the Budgetary Plan foresees a net adjustment of 0.3% GDP from 41.2% in 2018 to 40.9% in 2019 which, as shown in FIGURE 6, is considered unlikely. AIReF estimates indicate a change in 2018 with respect to the trend of expenditure reduction observed in previous years, estimating an increase in the weight of expenditure on GDP of 0.5%, 3i0.3% above that foreseen in the Budgetary Plan. This difference is transferred to 2019, where AIReF's forecasts reflect an expenditure 0.2% GDP higher than those of the Budgetary Plan.

FIGURE 22. 2018-2021 NON-FINANCIAL EXPENDITURE PATH. GENERAL GOVERNMENT IN % GDP.



Source: Budgetary Plan, IGAE and AIReF's estimates

The net adjustment of 0.3% GDP of the non-financial expenditure foreseen in the Budgetary Plan is the result of a reduction in the following items which offsets the increase in expenditure on social benefits:

- ✓ A reduction in interest rates of 0.1% GDP in line with AIReF's forecasts.
- ✓ 0.1% GDP less of Gross Fixed Capital Formation.
- ✓ A reduction in other expenditure items (subsidies, other expenditure and capital transfers) of 0.2% GDP, explained by a series of one-off

costs recorded in 2018 that will not be repeated or not with the same intensity in 2019.

Public consumption

AIReF expects a higher level of expenditure on compensation of employees in 2019 than that foreseen in the Plan since, although it estimates similar growth, it starts from a higher level in 2018. The difference in levels between the two estimates is due to the evolution foreseen in 2018, 2.8% in the Budgetary Plan compared to 3.4% in AIReF's scenario. For 2019, the Agreement with the trade unions foresees a growth of 2.65%, which stems from a 2.4% increase which is consistent with a GDP growth of 2.3% and an additional growth in the wage bill of 0.25%. In the case of the Central Administration, a further 300 million euros of wage drift are included in the agreement for wage equalisation of the State law enforcement agencies. AIReF assumes an increase of 1% in the workforce resulting from the effect of the provisions on the replacement rate included in the GSB for 2018 and which would start to be noticed in 2019. As a result, AIReF's estimates would entail the stabilisation of the weight of compensation of employees on GDP.

The evolution included in the Budgetary Plan of the rest of public consumption is in line with AIReF's forecasts. The Budgetary Plan includes growths of 3.1% for intermediate consumption and 2.3% for social transfers in kind, which seems consistent with the expected evolution in expenditure on healthcare and education. These growths are above the reference rate of expenditure growth established at 2.7% for 2019 in the expenditure rule. In the case of social transfers in kind, their evolution is explained by the abolition of the pharmaceutical co-payment for pensioners.

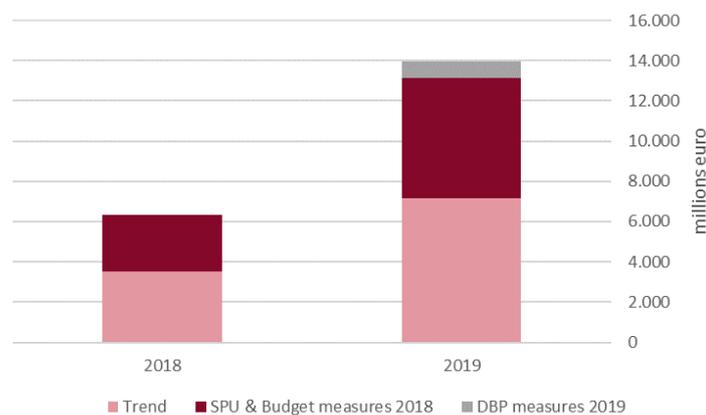
Social transfers in cash

The item that will see the largest increase in 2019 is social transfers in cash. This heading includes the effect of most of the measures such as increased pension expenditure, the extension of paternity leave, improved dependency and unemployment benefit for the over 52s. The combination of the measures adopted together with the trends of these items represents an increase of 0.2% GDP under this heading, similar in both scenarios, although slightly higher in AIReF's scenario.

Beyond its inertial evolution, the increase in pension expenditure is due both to the measures approved in the 2018 GSB and to the new ones included in the Budgetary Plan. About half of the projected growth in pension expenditure is due to an ageing population and the substitution effect of new pensions that are higher than those leaving the system. The rest is explained by the measures adopted, mainly in the 2018 GSB. Thus, expenditure on widows'

pensions in 2019 will significantly increase as a result of the 4% increase in the percentage to be applied on the regulatory base of the benefit, from 56% to 60%. The 1.6% revaluation for 2018 and 2019 adds more than €4 billion in expenditure. Of the measures contained in the Budgetary Plan, the most relevant is the compensation for the deviation of the CPI in 2018 as a whole, which includes the compensation itself and the effect on the pension expenditure base in 2019. This is in addition to the impact of the revaluation of minimum and non-contributory pensions.

FIGURE 23. PENSION EXPENDITURE GROWTH COMPARED TO 2017. AIREF'S FORECASTS



Unemployment benefits remain stable at 1.4% GDP, maintaining the same weight as in 2018. AIReF's estimates are in line with those of the Budgetary Plan, with an expenditure on benefits of nearly 17,900M€. The decline in this item recorded in recent years slows down in 2018 and begins to grow in 2019 due to the increase in expenditure on contributory benefits and the expected slowdown in the reduction of expenditure on subsidies as a result of long-term unemployment following the crisis. The coverage rate will be recovered by the accumulation of benefit entitlements resulting from a standardisation of the labour market, increasing the weight of contributory benefit recipients as opposed to non-contributory subsidies. AIReF incorporates the recovery of unemployment benefit for those over 52 years of age in its forecasts.

Interest rates

The Budgetary Plan foresees a reduction of interest rates of 0.1% GDP in line with AIReF's estimates. The reduction in the weight of interest rates on GDP continues in 2019, although it is slowing down with respect to the reduction recorded in recent years. The savings in terms of interest expenditure will continue to be felt as the Public Treasury issuance portfolio is renewed, and issues made during the crisis are replaced by others with lower marginal rates,

although the impact is lessening. Similarly, in the short term the risk of an upturn in interest rates is not relevant, given that the proportion of GG debt with a residual maturity of less than one year is around 15%. However, due to the current high level of debt, a higher-than-expected increase in interest rates would increase the sustainability risk and imply an additional fiscal consolidation effort.

Gross capital formation

Gross capital formation in 2019 is expected to fall by 0.2% GDP, due to the impact of the State's financial liability for toll motorways in 2018. The Budgetary Plan includes a level of gross capital formation of 2.2% GDP in 2018, slightly below that AIReF's level of 2.3% GDP, as well as a lower reduction of only 0.1% GDP by 2019. Therefore, the estimates of the Budgetary Plan are in line with those of AIReF. In any case, the impact of the State's financial liability for toll motorways and the re-tendering process presents a high degree of uncertainty, which affects both its quantification and the time horizon in which this impact will materialise in the public accounts.

Subsidies and other expenditure

Subsidies and other current expenditure evolve in a very limited way in the Budgetary Plan, reducing their weight on GDP by 0.1%. The evolution foreseen for these items is similar to that of AIReF. The contributions to the EU stand out for their volume, which in 2019 will be slightly lower than in the previous year, growing in line with the EU budget, which would grow much less than in 2018.

TABLE II. COMPARISON OF AIREF'S BUDGETARY SCENARIO AND BUDGETARY PLAN

TOTAL ADMINISTRACIONES PÚBLICAS	2016	2017	2018		2019	
			AIReF	Plan Presupuestario	AIReF	Plan Presupuestario
Impuestos sobre la producción y las importaciones	11,6	11,6	11,8	11,7	12,1	11,9
Impuestos corrientes sobre renta y patrimonio	9,9	10,2	10,5	10,5	10,7	10,7
Impuestos de capital	0,6	0,5	0,5	0,5	0,5	0,5
Cotizaciones sociales	12,2	12,3	12,4	12,4	12,6	12,5
Rentas de la propiedad	0,7	0,6	0,6	0,6	0,6	0,6
Otros	2,8	2,8	2,9	2,9	2,8	2,9
Total Recursos	37,7	38,0	38,6	38,5	39,2	39,1
Remuneración de asalariados	10,9	10,5	10,5	10,4	10,5	10,4
Consumo intermedio	5,1	5,0	5,0	5,0	4,9	5,0
Transferencias sociales	18,2	17,8	17,9	17,9	18,1	18,0
<i>de las cuales prestaciones por desempleo</i>	1,7	1,5	1,4	1,4	1,4	1,4
Intereses	2,8	2,6	2,4	2,4	2,3	2,3
Subvenciones	1,0	1,1	1,1	1,0	1,0	0,9
Formación bruta de capital	1,9	2,0	2,3	2,2	2,1	2,1
Transferencias de capital	0,7	0,6	0,7	0,7	0,6	0,6
Otros	1,6	1,4	1,6	1,6	1,6	1,6
Total Empleos	42,2	41,0	41,5	41,2	41,1	40,9
Capacidad/necesidad de financiación	-4,5	-3,0	-2,8	-2,7	-1,9	-1,8

5.3 Analysis by sub-sectors

The Budgetary Plan only includes the budgetary forecasts of the GG. The fiscal scenario included in the Budgetary Plan is defined exclusively for the GG and includes the main revenue and expenditure headings in national accounts. In previous reports AIReF has noted the need to incorporate a breakdown by sub-sectors, which is only carried out in the Budgetary Plan to analyse the past, and a greater detail of the main expenditure and revenue headings, emphasising the assumptions underlying their evolution.

The distribution of the fiscal balance foreseen in the Budgetary Plan by sub-sectors once again does not reflect the surplus that the LGs will reach. The LGs have been recording a surplus of around 0.5% GDP, as a result of the stable growth of revenue with little link to the economic cycle, the limited evolution of certain expenditure items mainly due to the application of the expenditure rule and the preventive action of local financial controllers as guarantors of the fiscal rules. As AIReF has noted in previous reports, the procedures for setting targets by sub-sectors should avoid becoming a mere formal exercise, far from the necessary budgetary planning that considers both the feasibility of achieving them and the sustainability of public finances. Any move in this direction would also strengthen the legitimacy and enforceability of the fiscal rules.

In the distribution by sub-sectors, AIReF has considered the possible neutralisation of the effect stemming from the Immediate Information System (IIS) of VAT on the 2017 settlement of the system resources of the Regions and LGs. In addition to the previous measures listed in the Budgetary Plan, AIReF's scenario has incorporated, based on the information provided by MINHAC, the estimate of the resources that would be transferred from the CA to the Regions and the LGs to neutralise the effect that the VAT IIS approved in 2017 has on the settlement of the system's resources. This measure, which is not included in the Budgetary Plan, would not affect all the Public Administrations but the distribution by sub-sectors.

The CA will reduce the deficit to around 0.8% GDP, although far from the target of 0.4% proposed in the Budgetary Plan. The CA would make an adjustment of 0.5% compared to 2018, which would be insufficient to achieve the adjustment required in the Budgetary Plan of 0.1% GDP. Revenue will increase its weight on GDP by 0.4%, with a growth of 6.8%, due to the effect of most of the new measures. On the contrary, the PIT reform approved with the GSB will hinder the evolution of PIT. On the other hand, expenditure will also grow, although at a slower pace than revenue, driven by the effect of the measures incorporated into the 2018 GSB, the agreement with the trade unions and the equalisation of wages of the State law enforcement agencies, the new measures included in the Plan and the estimated effect of the suppression of the IIS. This momentum is offset by the reduction in Gross Fixed Capital Formation as a result of the rescue of toll motorways that increased this heading in 2018.

AIReF forecasts that the Regions could close the year 2019 with a deficit of -0.2%, improving the inertial scenario by 0.2%. This improvement is fundamentally conditioned by the estimation of the additional revenue that would be received by the Regions from MINHAC due to the neutralisation of the effect of the VAT IIS on the 2017 settlement, just over 2,000 million euros. This additional revenue is partly offset by the higher growth in expenditure expected from the abolition of co-payment laid down in the Budgetary Plan.

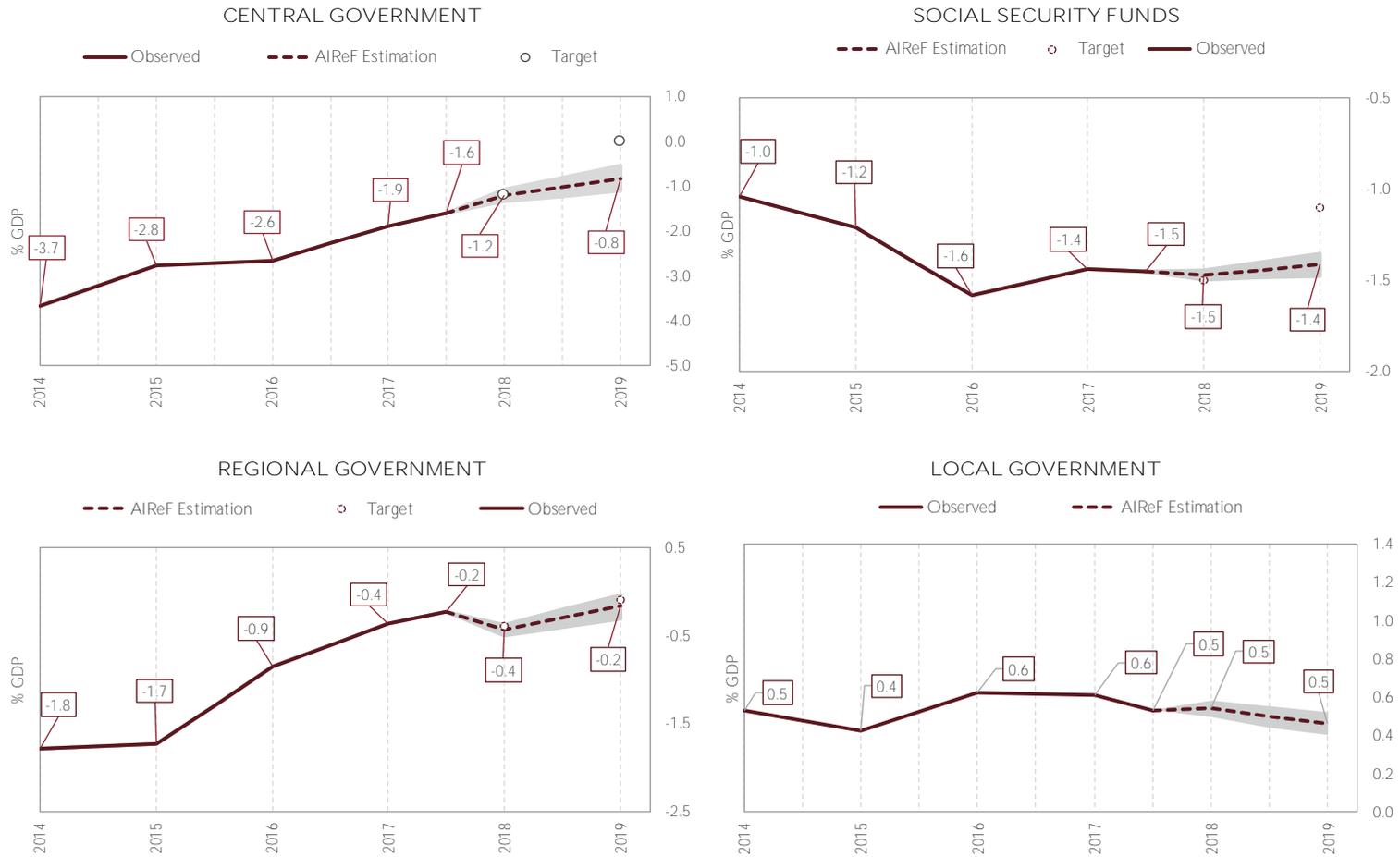
AIReF estimates that the LG sub-sector could close 2019 with a surplus of around 0.5% GDP, slightly improving its inertial forecasts due to the effect of the VAT IIS on revenue. AIReF's current forecast shows a slight improvement in the local surplus projected in the inertial estimates, resulting from the impact of the suppression of the IIS on local revenue. The measures of the Budgetary Plan that, according to AIReF, will affect the LG sub-sector do not have an impact on the result.

The Social Security Funds (SSF) will maintain a deficit similar to that of the previous year in 2019. It is expected that there will be an intense growth in

revenue and expenditure. The dynamism of contributions is driven by the effect of the increase in the minimum wage on the contribution bases. On the expenditure side, it is worth noting the return to the revaluation with the CPI and the slight increase in unemployment expenditure after the stabilisation in 2018.



FIGURE 24. 2018-2019 NET LENDING/BORROWING PATH BY SUB-SECTOR IN % GDP.



6

DEBT SUSTAINABILITY ANALYSIS

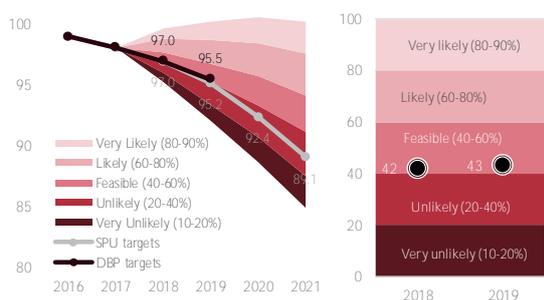
AIReF considers the debt projections established in the 2019 Budgetary Plan to be feasible. The Budgetary Plan projects a debt path of 97% and 95.5% GDP for 2018 and 2019, values that are within the central range of AIReF's regulatory scenario.

Although the Budgetary Plan projects an "*acceleration*" in the pace of debt reduction, it is not very significant in relation to recent developments, and is far from what is required by the Organic Law on Budgetary Stability and Financial Sustainability (LOEPySF for its Spanish acronym). Despite the fact that the Spanish economy has experienced almost 5 years of sustained growth and enjoyed an environment of historically low interest rates, the GG debt as a percentage of GDP has hardly been reduced since its historical peak. Thus, in the second quarter of 2018 it was at the same level as in the first quarter of 2014 (98.1%), despite the fact that in that period the economy experienced an accumulated nominal growth of 14.5%. The current Budgetary Plan **proposes** "*to reach a primary surplus in 2019—for the first time since 2007—and to accelerate the reduction of government debt*". This reduction is estimated at 1.5% GDP in 2019, bringing the ratio to 95.5%. This projection is in line with the recent evolution (-1.3% GDP of annual variation in the second quarter of 2018) and is also significantly far from the reduction required in the 1st Transitional Provision of the LOEPySF (whereby the debt path should be reduced by at least 2% GDP per year when real growth or employment grow above 2%).

1 Achieving a debt-to-GDP ratio equal to or less than that projected in the 2019 Budgetary Plan is considered feasible...

2 ... although generating sufficient fiscal space to respond to future crises requires more intense debt reduction, which not only relies on the denominator effect but also involves a faster and more sustained improvement in the fiscal position

Budgetary Plan projections and probability of compliance according to AIReF's confidence intervals



Debt (% GDP), scenario of compliance with rules versus unchanging policy scenario



Source: Own processing

Generating enough fiscal space to respond to future crises requires more intense debt reduction, which not only relies on the denominator effect, but also means a faster and more sustained improvement in the fiscal position. Maintaining the current structural primary balance would stabilise the debt ratio at around 90% GDP, while complying with fiscal rules would lead to reaching the reference level of 60% in the next 15 years. The latter would imply achieving and maintaining budgetary balances similar to the average recorded during the last expansionary phase (1999-2007). A more detailed global analysis of debt sustainability and the implications of compliance with fiscal rules can be found in [AIReF's Debt Monitor](#).

7 STRUCTURAL DEFICIT ANALYSIS

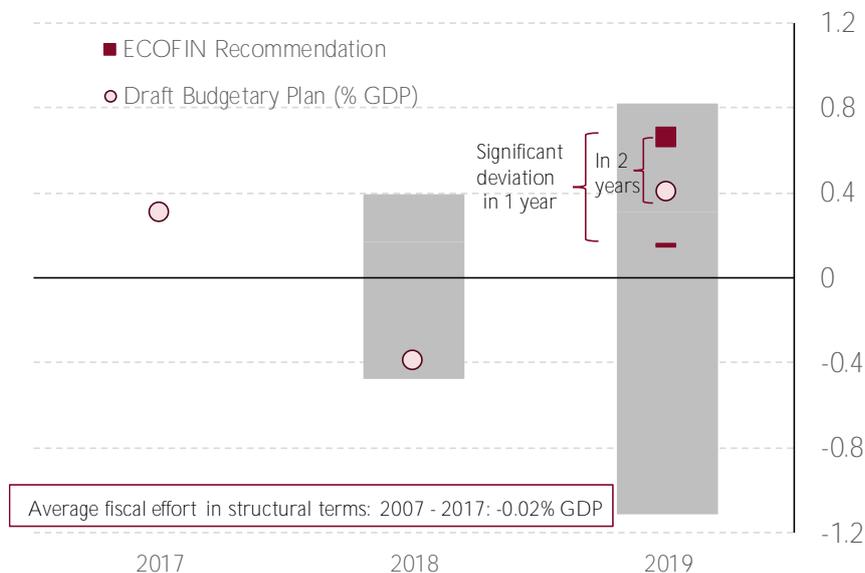
The reduction of the government deficit to below 3% GDP in 2019 would allow Spain to leave the European Excessive Deficit Procedure (EDP), being subject to the preventive arm of the Stability and Growth Pact (SGP). A deficit-to-GDP ratio below 3% in 2018 and with prospects to keep it below that figure in 2019 would allow Spain to leave the EDP which it has been part of since 2009. However, this does not imply a full margin of discretion in public finances or a lack of supervision by EU institutions. Under the assumption that the EDP will be closed, from next year Spain will be subject to the preventive arm of the SGP and should therefore make the fiscal adjustments adopted by ECOFIN in July: an adjustment of the deficit-to-GDP ratio of the GG, in structural terms (see box), of 0.65% GDP and which, according to the Commission's calculations, would be consistent with a growth rate of GG expenditure of 0.6%, with any excess over that rate having to be financed by discretionary revenue-increasing measures.⁹

⁹ Adjustments are necessary if the debt-to-GDP ratio, in structural terms, exceeds the target level set by the national authorities, the so-called Medium Term-Objective (MTO), and/or the government debt is above 60% GDP. In the case of Spain, according to spring estimates for 2018, both conditions are met as the structural balance would stand at -3.3% GDP (compared to an MTO equal to the budgetary balance) and the debt would stand at 97.6% GDP.

Within the preventive framework, the structural effort measure needed to bring the evolution of the deficit closer to its medium-term objective is particularly important. The Commission uses a methodology to estimate the structural component of the government deficit by residue, i.e. discounting the impact of the cyclical position of the economy on public finances and non-recurrent measures from the nominal deficit. It is an approximation that has recognised limitations not only because of its aggregate and residual character, but also because of the difficulties in estimating the impact of the cycle on the government deficit. The problems are even more acute when they are also ex-ante estimates. In this case, it is necessary to consider the uncertainty about the cyclical position and about the evolution of public finances. Despite these limitations, the fact remains that it is a key indicator, together with the evolution of computable expenditure, in the fiscal supervision of the SGP to evaluate convergence to the medium-term objective (MTO).

AIRcF's estimate on the structural effort in 2019 points to a neutral effort, placing the forecast of the Budgetary Plan (+0.4%) in the upper part of the interval. AIRcF has made an ex-ante estimation of this structural effort according to the Commission's methodological approach, with three differences: i) its own series of non-recurrent measures is used; ii) the output gap is estimated using AIRcF's own methodology because it considers that, within the limitations inherent in the potential estimation, it is better adapted to those specified for the Spanish economy; and iii) the uncertainty associated with both the cyclical position and the evolution of public finances is incorporated, an essential point when dealing with ex-ante estimations.¹⁰ This estimation would point to a neutral effort in line with the 2007-2017 average. The results of this ex-ante estimation are shown in the figure below, where it can be seen how the structural effort foreseen in the DBP (of 0.4% GDP) is in the upper part of AIRcF's estimation band. And, in any case, it does not reach the effort required by ECOFIN (0.65%) although its implementation would be within the tolerance band admitted by EU institutions.

¹⁰ AIRcF. Working Paper 2/2018. "[Estimation of the output gap in the Spanish economy](#)".

FIGURE 25. STRUCTURAL EFFORT


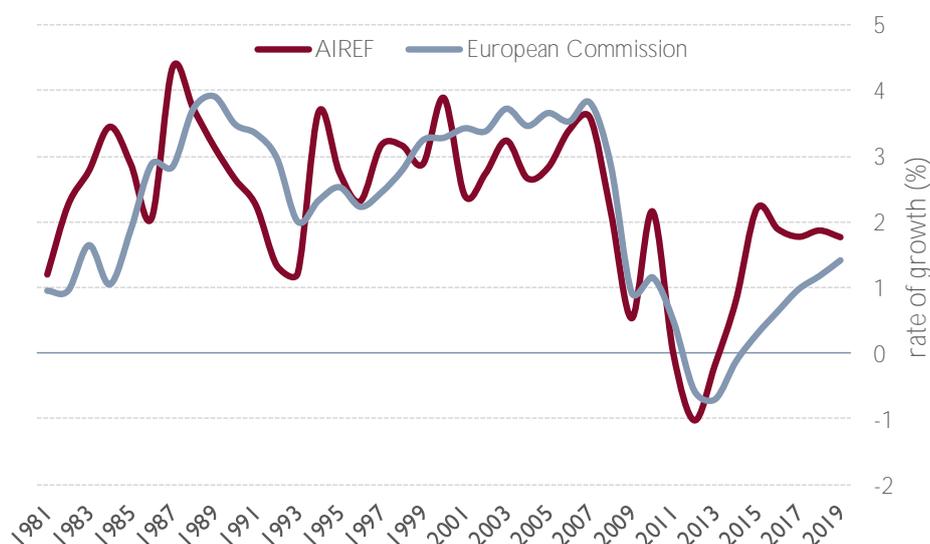
As already mentioned, this structural effort methodology presents a series of characteristics that must be considered when it is used as a proxy for the discretionary effort:

- It is a very aggregated approximation that obtains the structural component by residue (top-down approach). Anything that cannot explain either the cycle or recurrent measures is considered a discretionary decision. It is a type of approximation that is specific to a first approximation to fiscal orientation, especially indicated in the case of international comparisons.
- It presents the limitations inherent in the estimation methodologies used to determine its components:
- There is no consensus on the methodology for estimating the output gap. None is considered superior. In particular, the one followed by the Commission faces known limitations concerning the NAWRU estimation, its pro-cyclicality or frequent revisions. Therefore, AIReF uses its own methodology.
- The stability and the very value of the elasticities used to calculate the semi-elasticity is also problematic. Errors in the pre-crisis phase were evident when underestimating elasticities and calculating unstable revenues as structural. AIReF is working on its own estimates.
- The identification of non-recurrent measures has a certain degree of subjectivity that can significantly affect results. Differences in criteria give rise to different results from the structural component of the public balance. In its spring estimates, the Commission did not incorporate any non-recurrent measures in 2019 and almost none in 2018 when AIReF calculates 0.5% GDP in 2018 and 0.1% in 2019.

- And ex ante, it is necessary to incorporate uncertainty about the cyclical position and about the evolution of public finances, which necessarily is transferred to the estimates of the structural effort. The Commission's methodology does not conduct a statistical treatment of economic or fiscal uncertainty.

The Commission and the Council are aware of the limitations of this approximation to the discretionary effort, so they add flexibility to their interpretation and assessment of compliance. Therefore, in practice, an evaluation is made of the requirements of the Pact, which is more complex and less mechanistic.¹¹ On the one hand, there are some margins of deviation permitted (0.5% GDP in one year or 0.25% GDP in two consecutive years). In addition, another indicator is considered, the so-called expenditure benchmark, which in principle is less problematic in its monitoring because it is observable. However, it also has its limitations; in particular, it depends on the estimates of potential growth with AIRcF presenting different results compared to those of the European Commission.

FIGURE 26. AIRcF AND EUROPEAN COMMISSION POTENTIAL GDP GROWTH RATES



¹¹ The uncertainty about the estimates of the output gap of the Spanish economy led to the modification of the fiscal efforts for 2019 resulting from the mere application of the EU methodology. The mechanical application would have required a structural adjustment of 1% GDP compared to the 0.65% finally adopted.

In this context, it seems necessary to complete this approach, which is aggregated and subject to limitations, with a detailed and individualised analysis of the measures contained in the budgetary documents, especially when it comes to the ex-ante evaluation. This bottom-up approach may allow for a better approximation, or at least, complementary information to better assess the nature of the planned correction and its fit with the ECOFIN recommendation.

Estimation of the structural effort using the European Commission methodology

The structural effort is defined as the first difference of the structural component of the public deficit:

$$\text{Esfuerzo estructural} = \text{Saldo estructural}_t - \text{Saldo estructural}_{t-1}$$

Where the structural balance (SE) is defined as the public balance adjusted for the effect of the economic cycle and discounting one-off and non-recurrent measures (MNR). That is, it is obtained by residue, discounting two components from the observed public balance (SP): the impact of the cycle (SC) and non-recurring measures (MNR).

$$SE = SP - SC - MNR$$

The first component, the cyclical balance (SC), is determined by applying a semi-elasticity to the output gap (OG) (ϵ):

$$SC = OG * \epsilon$$

Where the OG, which measures the cyclical position of the economy, is defined as the difference between the observed GDP and the potential GDP as a percentage of the potential GDP. The Commission estimates the potential GDP using a methodology, based on the production function, which was adopted by ECOFIN in 2002.

And the *semi-elasticity* summarises the impact of the output gap on public finances. The semi-elasticities used by the Commission are based on a methodology developed by the OECD and agreed in the Output Gap Working Group (OGWG). For Spain, the current estimated value is 0.539.

The second component, non-recurrent measures, approximates those measures that, because they have a one-off effect, do not affect the underlying position of public finances. In order to identify such measures, the Commission has published general principles with the aim of ensuring that the criteria it applies in supervision are transparent.

Source: Vade Mecum on the Stability and Growth Pact, 2018 Edition. Institutional Paper 075/March 2018.

8

RECOMMENDATIONS AND GUIDELINES FOR BEST PRACTICES

New recommendations

- Application of the fiscal framework: monitoring of measures and prevention of deviations

Despite the high degree of progress in their specification and definition, the measures proposed in the Budgetary Plan present a series of uncertainties regarding their implementation and execution.

Thus, a relevant part of the measures requires legislative processing, either in the process of parliamentary debate of the draft General State Budget or in that of own laws, as in the case of the creation of new taxes. Consequently, there could be changes in their formulation that would affect the economic and budgetary impact originally foreseen.

In addition, even if the measures were approved under the terms of the Budgetary Plan, there are uncertainties as to their final impact and the timing of their entry into force.

Given that the deficit of 1.8% contemplated in the Plan is perceived as difficult to achieve, the materialisation of some of the identified risks may require additional measures to reach this target.

For this reason, AIRcF recommends that, within the framework of the automatic prevention measures provided for in Article 18 of the Organic Law on Budgetary Stability and Financial Sustainability:

-
1. *The Ministry of Finance should continuously monitor budgetary execution in order to verify that there are no deviations in the impact of the revenue and expenditure measures foreseen in the Budgetary Plan.*
-

AIRcF identifies three areas, which affect the different sub-sectors, where the quantitative importance and the high uncertainty make it advisable to reinforce this monitoring beyond that generally established in the aforementioned article of the LOEPySF.

In the area of Central Administration and Social Security, AIRcF recommends that specific control procedures be articulated for revenue measures, since a significant part of the measures rests on the creation of new taxes whose collection potential has been estimated in the absence of prior evidence. Similarly, AIRcF advises this monitoring in the field of Social Security in order to monitor the direct and indirect impact that the substantial increase in the minimum wage may have on fiscal variables.

The LOEPSF does not provide the Central Administration with a preventive procedure similar to that existing for the Territorial Administrations in the event of a risk of deviation. Therefore, in AIRcF's evaluation of the 2017 Draft Budgets, it already formulated recommendations in this sense as the perception of a lower level of "accountability" from the CA may erode the degree of commitment of other Public Administrations with respect to compliance with their fiscal targets.

For this reason, AIRcF recommends:

-
2. *The establishment of a procedure for monitoring the implementation of the Central Administration and Social Security that specifically includes:*
 - a. *a monthly monitoring by the Ministry of Finance of the degree of implementation and impact of the revenue measures, with special attention to the implementation of the new taxes envisaged in the Budgetary Plan.*

- b. *an evaluation of the differential behaviour of the labour market as a consequence of the rise in the minimum wage and its impact on fiscal variables.*
- c. This monitoring should be carried out in close collaboration with AIReF and with the widest publicity.

On the other hand, in the context of the Territorial Administrations, the data on both execution and the budgetary lines for the coming year show a growing trend in expenditure, which has been affected by different measures adopted by the Central and Regional Governments. In this sense, the Report on the degree of compliance with the 2017 fiscal targets, recently published by the Ministry of Finance, revised the computable expenditure recorded in that year by Local Corporations (LCs) upwards and increased the number of Regions that did not comply with the expenditure rule. The available data is in line with this trend.

For this reason, *AIReF recommends that:*

-
- 3. *The Ministry of Finance, as the governing body for stability, intensifies the monitoring, control and warning actions necessary to ensure compliance with the fiscal rules*
-

Medium-term budgetary scenario

Despite the fact that the Spanish economy has experienced almost 5 years of sustained growth and enjoyed an environment of historically low interest rates, the GG debt as a percentage of GDP has hardly been reduced since its historical peak. Thus, in the second quarter of 2018 it was at the same level as in the first quarter of 2014 despite the fact that in that period the economy experienced an accumulated nominal growth of 14.5%. The current Budgetary Plan proposes a reduction in line with this recent evolution.

The convergence to the debt target of 60% requires a reduction in the structural imbalance, which is currently estimated at around 2% GDP. This requires the development of a medium-term fiscal strategy, including measures aimed at a permanent deficit reduction.

In this regard, it should be recalled that the Stability Programme Update (SPU) is considered a national medium-term fiscal plan in accordance with Article 4

of Regulation (EU) 473/2013 and therefore has to meet the requirements set out for multi-year frameworks in Article 29 of the LOEPySF and in Council Directive 2011/85/EU of 8 November 2011 on requirements for budgetary frameworks of the Member States.

For this reason, AIRcF recommends that:

-
4. *On the occasion of the Stability Programme update (2019-2022) which will take place next April, a genuine medium-term programme is carried out, anchored in a credible debt reduction path.*
-

THE PRESIDENT OF THE INDEPENDENT AUTHORITY
FOR FISCAL RESPONSIBILITY



José Luis Escrivá

9 ANNEXES

ANNEX 1 MEASURES SHEETS

INTRODUCTION

AIReF has carried out a detailed and exhaustive analysis of each of the new measures contained in the Budgetary Plan to determine their budgetary impact and incorporation into AIReF's scenario. Based on the information contained in the Plan, AIReF has made successive requests for information to the Government on its calculations and methodology for estimating the impacts.

On the basis of the information submitted, AIReF proceeded to compare the methodology used. In the cases where it was possible, the calculations were replicated to check the estimation. On the other hand, as a control of robustness, AIReF used alternative methods to those employed by the Government based on public information sources such as tax reports or the Continuous Work History Sample to compare the impacts. Another method, especially relevant in the case of new taxes, was the use of international comparisons.

This work was reflected in a sheet for each measure that includes the following information schematically:

- Estimation of the Budgetary Plan
- Range of estimates assumed by AIReF
- Detailed description of the measure.
- Description of the methodology used by the Government to calculate the impact.
- AIReF's assessment with respect to the Government methodology, including alternative estimates made by AIReF, where appropriate.

Corporate Income Tax

Estimate	DBP	AIReF
Measures 1 and 2	1,776 M€	1,650 – 1,900 M€
Measure 3	-260 M€	-242 – -278 M€

	Measure	Government Methodology	AIReF's evaluation
1	Limitation of the exemptions to dividends and capital gains generated abroad to 95%.	Joint evaluation of both measures as their effects overlap. Microsimulation based on reporting entities of CIT2016.	<ul style="list-style-type: none"> ✓ AIReF has revised the MINHAC microsimulation and has estimated a counterfactual scenario using CIT statistics and its own models resulting in an impact that includes the uncertainty
2	Minimum rate of 15% on the tax base (18% for entities that are taxed at 30%). Affects fiscal groups and individual companies with business equal to or greater than 20 M€	Breakdown of the total number of entities affected and the cost of the measure for both consolidated groups and for individuals. Joint impact: 1,776 M€	<ul style="list-style-type: none"> ✓ Impact in terms of accrual Range: 1,650 – 1,900M€ ✓ AIReF estimates that this impact will occur in 2019 as measures on instalment payments are adopted
3	Lowering the nominal CIT rate from 25% to 23%. Companies that turnover less than a million euros	Estimated with the same methodology as the above measures. The rate of 25% is replaced with 23% and the declarations are calculated Impact: -260 million	<ul style="list-style-type: none"> ✓ AIReF considers this methodology to be adequate and has included the uncertainty that its own estimation models provide. ✓ Impact: range -242 – -278M€

Increase in PIT on high incomes

Estimate	DBP	AIREF
Measure 1	328 M€ (2019)	245 - 255 M€ (2019) 108 - 112M€ (2020)
Measure 2	332 M€ (2020)	360 - 375 M€ (2020)

Measure	Government Methodology	AIReF's evaluation	
1	<p>2-Point increase in the state rate on the general basefor taxpayers with incomes higher than 130,000€ and 4 points for those that exceed 300,000€</p>	<ul style="list-style-type: none"> ✓ Microsimulation based on reporting entities of PIT2017. ✓ Calculation of new declaration for affected taxpayers. ✓ Calculation of the impact using the difference between the calculated and the real declaration. ✓ The MINHAC considers the total impact in 2019. Impact: 328 million 	<ul style="list-style-type: none"> ✓ Regarding the first measure MINHAC's estimate is considered adequate although AIReF increases the estimate for 2019 at a rate between 4% and 6% (according to AIReF's models). This places the impact between 353 and 367 M€. ✓ However, AIReF believes that part of the effect will move to the declaration for 2020 as a part of this income is not from work, therefore its withholding does not increase. Withholding is not increased if the earnings come from various payers even though it is earnings from work. ✓ In a comparison with what happened in 2012 with the introduction of the complementary levy it can be seen that 39% of the increase moved to the following year , therefore the impact would be: Impact: 2019: 245 – 255 M€ 2020: 108 – 112 M€
2	<p>4-point increase in the state rate on the savings base for income from savings in excess of 140,000 euros</p>	<ul style="list-style-type: none"> ✓ Microsimulation based on declarants of PIT2017 using the same method as the previous measure. ✓ Calculation of the impact using the difference between the calculated and the real declaration. ✓ The MINHAC considers that the impact is moved entirely to the declaration of 2020 as the withholding rate has not risen. Impact: 332 million 	<ul style="list-style-type: none"> ✓ Regarding the second measure the MINHAC's estimate is considered adequate; it applies the same increases as the first measure and coincides with understanding that the effect will move to the declaration for 2020 as the withholding rate has not increased. Impact: 2019: 0 M€ 2020: 360 – 375 M€

Green taxation. Tax on Hydrocarbons

Estimate	DBP	AIReF
	670 M€	649 – 693 M€

Measure	Government Methodology	AIReF's evaluation
<p>Increase in the tax rate of diesel of 38 euros per thousand litres. It does not affect professional use diesel or agricultural diesel</p>	<p>Its estimate is made in three phases:</p> <ol style="list-style-type: none"> 1. Diesel consumption for 2019 is estimated based on the special taxes databases. 2. Application of the increase in the levy on the Tax on Hydrocarbons and its effect on VAT. 3. Discounting the estimated returns to professionals. <p>Impact: 670 million</p>	<ul style="list-style-type: none"> ✓ Estimation of the diesel consumption for non-professional use in 2019 including uncertainty of the models ✓ Estimate of the increased revenue from the Tax on Hydrocarbons due to the application of rate increase and the collection effect on VAT. ✓ Second-round effects are not considered (inelastic demand of diesel fuel). ✓ Coincidence between results obtained by MINHAP and AIReF within the range of uncertainty. ✓ Impact: 649-693 million

Tax on digital services

Estimate	DBP	AIReF
	1,200 M€	546 – 968 M€

Measure	Government Methodology	AIReF's evaluation
<p>Levy of 3% on certain digital services.</p> <p>Affects services that involve data exploitation for economic purposes.</p> <ul style="list-style-type: none"> • Online advertising services • Online intermediation services • Data transmission 	<ul style="list-style-type: none"> • The Government uses a working document of the EC (*) according to which this tax would have an impact of 6,000M€ per year for the EU. • The percentage that Spain represents (9.1%) in the European digital market is applied and a collection of 546M€ is obtained. • There are two elements according to which the Spanish tax differs from the European and that would increase collection: <ul style="list-style-type: none"> ○ It incorporates intra-group transactions, with which Spanish collection would amount to 728M€. ○ The minimum market capitalisation threshold for the companies affected in Spain is 3M instead of 5M€, with which collection would amount to 968M€. • In addition, it is estimated that digital trade will grow in 2019, with which collection would rise from 968M to 1,200M€ • Impact: 1.200million. 	<ul style="list-style-type: none"> ✓ AIReF considers the impact estimated in Spanish market of 546M€ to be feasible although there is uncertainty with respect to other elements that could increase collection: <ul style="list-style-type: none"> ✓ The Spanish tax does not incorporate digital platforms that offer content for payment (cloud computing) and the European one does. ✓ There are doubts about the effect of the change in the capitalisation threshold from 5M to 3M. <p>In any event, even when these positive effects will materialise, the maximum collection in AIReF's range is 968M€, as it is estimated that the base figure of the EC study already refers to 2019.</p> ✓ Impact: 546 - 968 million.

Anti-fraud. Limitation of cash payments

Estimate	DBP	AIREF
	218 M€	100 – 200 M€

Measure	Government Methodology	AIREF's evaluation
Limitation of cash payments Reduction of the threshold for cash transactions from 2,500€ (current limit) to 1,000 €.	<ul style="list-style-type: none"> MINHAC estimated the transactions affected based on information of the IIS, which represents 80% of actual transactions. According to the IIS, there are about 55,000 M€ worth of transactions between 1,000€ and 2,500€. Therefore, the actual amount of the transactions affected would be approximately 70,000 M€. MINHAC considers that the tax burden on these transactions would be 40.6% according to a World Bank report. It then calculates the impact of the measure by applying the percentages of 7.7% for fraud and 10% for improved collection efficiency established by the experience of AEAT. Impact: 218 million. 	<ul style="list-style-type: none"> ✓ AIRcF considers MINHAC's calculation to be adequate except for the estimate of the tax burden. Applying the tax burden on the trading volume means double accounting of the added value of the economy and that GDP should be used. ✓ Based on the information provided by MINHAC, AIRcF estimated that the ratio of GDP to transactions is 49.8%. Then this ratio is applied to the 70,000 M€ of affected transactions, obtaining a value added affected of 34,900 M€. ✓ Then the tax burden (40.6%) and collection effectiveness (10%) coefficients provided by MINHAC are applied. ✓ In addition, in accordance with international evidence the percentage of fraud could range from 7% to 15%. ✓ Taking into account that there is variability on fraud and effectiveness the impact is estimated to be: 100-200 million.

Anti-fraud. List of debtors

Estimate	DBP	AIREF
	110 M€	50 – 100 M€

Measure	Government Methodology	AIREF's evaluation
<p>Reinforcement of the list of debtors. The minimum threshold for debts to appear in the list of debtors is reduced from 1M€, currently enforced, to 600,000. Debtors jointly and severally liable are also included.</p>	<ul style="list-style-type: none"> The average revenue made by the people who have appeared on the list of defaulters from the first year of its publication (2015) until the present is considered. <ul style="list-style-type: none"> Revenue both from settlements and from the improvement in self-settlements are included. This average revenue is applied to the potential number of new debtors that would appear in the list both as principal and jointly liable debtors. <ul style="list-style-type: none"> Impact: 110 million 	<ul style="list-style-type: none"> ✓ Access to estimation methodology provided by MINHAP. ✓ It is considered that the amounts collected could be 50% lower due to the lower amount of the average debts of the new defaulters, as the list exclusively includes people with debts between 600,000€ and 1M€. ✓ Impact: 50-100 million

Anti-fraud. International best practices

Estimate	DBP	AIREF
	500 M€	200 – 270 M€

Measure	Government Methodology	AIREF's evaluation
<p>International best practices</p> <ul style="list-style-type: none"> Regulatory measures against dual-use software Creation of a control unit for taxpayers with significant wealth Strategy to address new taxpayers Improvement of the automatic exchange of information 	<ul style="list-style-type: none"> With regard to the dual-use software, MINHAC sets the hidden tax base on the basis of a household final expenditure of 400,000 M€ in 2019, of which 200,000 M€ would be in cash (Bank of Spain statistics). 1% is assumed to be hidden: about 2,000 M€. Then the average effective rate of 15.67% VAT is applied (approximately 320 M€). In addition, collection from CIT of 1/3 VAT (100 M€) is estimated. In total the collection would be about 420 M€. For the group of taxpayers with great wealth an increase of 1/3 on the results obtained on this group in 2017 is assumed: about 110 M€. For the rest of the measures, a 1% improvement of the results of AEAT proceedings (12,000 M€ without extraordinary) is assumed, obtaining around 120 M€. Total impact: given the overlaps, an estimated 500 million (equivalent to estimates of 323 M€, 84 M€ and 91 M€, respectively). 	<ul style="list-style-type: none"> ✓ Access to MINHAP methodology. ✓ Regarding the new dual-use software, a more prudent hidden tax base percentage of between 0.5% and 0.65% is estimated instead of 1%, resulting in an estimate of 200-270 M€. ✓ With regard to the group of large taxpayers, the estimate is not incorporated due the uncertainty about the implementation period of the measure. ✓ With respect to the third measure, the information provided does not allow for an estimate of the effect on collection during 2019 so it is not included. ✓ Impact: 200-270 million.

Social Security. Contribution bases

Estimate	DBP	AIREF
Minimum bases	1,500 M€	1,500 – -1,700 M€
Maximum bases	-	1,000 – -1,100 M€

	Measure	Government Methodology	AIREF's evaluation
1	Increase in the minimum contribution base of the General Regime of 22.3% Increase of the base from 859€ to 1,050 €.	The Ministry of Labour has provided the number of workers affected (1.5 million) and the increase in collection (600 M€)	AIREF considers the calculation using the Continuous Professional Life Sample (MCVL) to be reasonable
2	Increase of the minimum contribution base of the Self-Employed Workers Regime of 13%. Increase of the base from 933€ to 1,050 €	The Ministry of Labour has provided the number of workers affected (2.3 million) and the increase in collection (994 M€)	<ul style="list-style-type: none"> ✓ AIReF considers the calculation using the Continuous Professional Life Sample (MCVL) to be reasonable ✓ Scenarios with different variations of bases and rates that result in similar amounts ✓ Move to contributions based on real income in 2020 at the earliest
3	Increase of the maximum Social Security contribution base of 10%. Increase of the base from 3,804 to 4,651€	Measure not quantified in the DBP The Ministry of Labour has provided the number of workers affected (1.5 million) and the increase in collection (2113 M€) against an increase of 22.3% in the base	<ul style="list-style-type: none"> ✓ AIReF considers the calculation using the MCVL and simulating an increase of 10-12% to be reasonable=> impact between 1,000 and 1,100 million

Heritage Tax

Estimate	DBP	AIReF
	339 M€	[0-8]

Measure	Government Methodology	AIReF's evaluation
<p>1% increase in the heritage exceeding 10 Million €.</p>	<p>Estimate of the increase in collection if the last section of the state rate or those approved by the Regions increases by 1% on the assumption that the tax is not subsidised: 339 million.</p>	<ul style="list-style-type: none"> ✓ MINHAC estimate by Region and affected taxpayers. ✓ The HT is assigned to the Regions with extensive regulatory powers. Most of the Regions have regulated their rate, as the state rate is not applicable. ✓ The measure would only be directly applicable to Aragon, the Canary Islands, Castile-La Mancha, Castile and Leon, and is estimated by MINHAC at 6M€. Effect on the State of 1.6M for non-residents, Ceuta and Melilla. ✓ AIReF does not incorporate the expected effect of this measure given its small amount and the need for approval of the law before 31-12-2018.

Revaluation of pensions to the CPI

Estimate	DBP	AIREF
	352 M€	518 M€

Measure	Government Methodology	AIReF's evaluation
Revaluation of pensions to the CPI in 2018 Special payment if 2018 inflation exceeds the 1.6% approved in the 2018 GSB	<ul style="list-style-type: none"> ✓ Does not distinguish between maintaining purchasing power and extra revaluation of minimum pensions. ✓ Does not specify CPI rate. ✓ In the supplementary information the Government estimates an increase in expenditure of 352 million 	<ul style="list-style-type: none"> ✓ AIReF expects that inflation will be 1.8% in 2018 ✓ Impact: 518 million. ✓ Breakdown: <ul style="list-style-type: none"> ✓ Special payment 254 M€ ✓ Base effect in 2019: 265 M€ ✓ If the inflation were 1.7% in 2018, the impact would be 260 M€. And if it were 1.9%, the impact would amount to 780 M€. ✓ For 2019 there is no additional cost as the revaluation announced in the SPU and AIReF's forecast (1.6%) coincide.

Main expenditure measures (CA and SSF)

Estimate	DBP	AIRcF
	992 M€	900 – 1,000 M€

Measure	Government Methodology	AIRcF's evaluation
Revaluation of minimum and non-contributory pensions of 3% in 2019	<ul style="list-style-type: none"> ✓ No estimate of individual impact ✓ In the supplementary information the Government estimates an increase in expenditure of 384 million 	<ul style="list-style-type: none"> ✓ Applies revaluation excess of 3% to the 1.6% on the minimum and non-contributory pensions (2.9 million). ✓ Impact: 325 million.
Unemployment benefit for those aged over 52. Expansion of age requirement from 55-61 to 52-65 years.	<ul style="list-style-type: none"> ✓ No estimate of individual impact. ✓ In the supplementary information the Government estimates an increase in expenditure of 308 million 	<ul style="list-style-type: none"> ✓ An 70 thousand increase in the number of beneficiaries is assumed, from its current value to the number of beneficiaries in 2012 adjusted by the cycle ✓ Impact: 323 million.
Progressive equalisation of paternity leave Increase in paternity leave from 5 to 8 weeks.	<ul style="list-style-type: none"> ✓ No estimate of individual impact. ✓ In the supplementary information the Government estimates an increase in expenditure of 300 million 	<ul style="list-style-type: none"> ✓ It is extrapolated based on the cost of increasing from 4 to 5 weeks in 2017 (100 M€). ✓ Impact: 300 million.

Main expenditure measures (CA and SSF)

Estimate	DBP	AIRF
	184 M€	180 – -190 M€

Measure	Government Methodology	AIRF's evaluation
<p>Minimum income. In 2019 the child allowance for vulnerable families will increase from 291 €/year to 473 €/year per child.</p>	<p>Impact: 184 million</p>	<ul style="list-style-type: none"> ✓ The households receiving the child allowance are identified through the Living Conditions Survey 2017 (last published). ✓ An increase of 182 €/year is applied to obtain the total budgetary impact. Estimate in line with the forecasts of the DBP. ✓ Impact: 180-190 million
<p>Contribution for non-professional carers. Definitive financing and recovery of the special agreement in the Social Security system for carers. Payment of their social contributions by the General State Administration.</p>	<p>Neutral</p>	<ul style="list-style-type: none"> ✓ The State pays the contributions of non-professional carers. ✓ Does not affect the consolidated public deficit: the CA assumes the expenditure and the SSF receives the revenue. ✓ The impact will occur in the future through the generation of greater pension rights. ✓ No budgetary impact in 2019.

Main expenditure measures (affecting LGs)

Estimate	DBP	AIREF
Total DBP measures affecting LGs with impact on General Government deficit	375 M€	45 M€

Measure	Government Methodology	AIREF's evaluation
Promote the universalisation of school between 0 and 3 years facilitating the LGs spending part of their surplus to improve these FSIs (330 M€) .	Not provided. Funded by the local surplus. Affects General Government balance.	<ul style="list-style-type: none"> ✓ Investments in nursery schools can now be considered financially sustainable investments from the Royal Decree-Law of 2018, although they require authorisation under certain conditions. ✓ The impact of the measure was already included in AIREF's overall assessment of the expansion of the 2018 FSI catalogue. ✓ Its additional impact would be coupled with the reduction of the conditions necessary for inclusion in this category, without AIREF considering that this could increase the overall impact estimated.
Meal aid to combat poverty (25 M€) and duplicate funds to eradicate gender-based violence (20 M€) .	Not provided. Funded with contributions from the State. Affects General Government balance.	<ul style="list-style-type: none"> ✓ Its impact will be that of the budget appropriations allocated in the GSB ✓ Impact (on CA): 45 million (allocations envisaged in the GSB according to MINHAC).

Main expenditure measures (affecting Regions)

Estimate	DBP	AIReF
Total DBP measures affecting Regions with impact on General Government deficit	515 M€	835 M€

Measure	Government Methodology	AIReF's evaluation
Increase in Dependency benefits Definitive financing intended to increase the minimum level of dependency benefits	No estimate of individual impact.	<ul style="list-style-type: none"> ✓ Intended to increase the minimum amount of the benefits ✓ Its impact will be the budget appropriation allocated in the GSB, does not require additional expenditure from the Regions to the party financed, neutral impact on its balance ✓ Impact (on CA deficit): 515 million (allocation provided for in the GSB according to MINHAC)
Removal of co-payment to "most vulnerable" pensioners No description in the budgetary plan.	No estimate of impact	<ul style="list-style-type: none"> ✓ The plan does not describe the content of the measure. ✓ The "most vulnerable" pensioners were considered as those receiving less than 800 euros in accordance with the provisions of the Government-Podemos Agreement. ✓ The maximum co-payment of the affected population was calculated in accordance with the statistics on pensioners published by the AEAT and Social Security, taking into account the co-payment cap per person. This maximum amount has been corrected by an incidence rate of 80% according to the available health statistics data. ✓ The total effect on the Regions was limited by the expenditure expected in the Regions that already subsidise the co-payment to pensioners ✓ Impact (on Regions' deficit): 300 million

ANNEX 2 SIMULATION OF THE IMPACT OF THE MINIMUM WAGE INCREASE

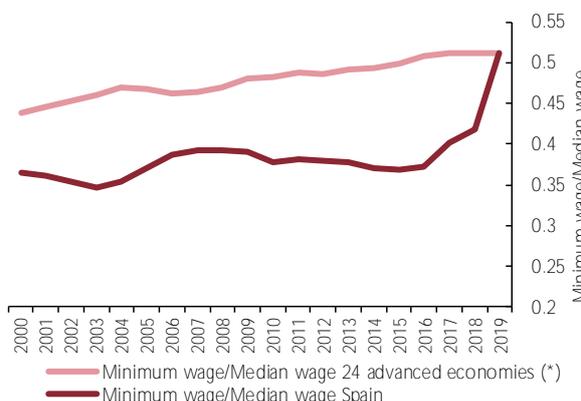
Background

The increase in the minimum wage included in the Budgetary Plan is one of the measures with the greatest potential impact on economic performance.

Following years of modest increases and a minimum wage that had stabilised at around 650 euros (see Figure 1), with significant losses in purchasing power in real terms (see Figure 2) in 2017, there was a significant change in the trend, with a rise of 8%, as shown in Figure 1.1. After the subsequent 4% increase in 2018, which brought the minimum wage to €736, the Budgetary Plan envisages an increase of 22.3% to €900, above the increase agreed by the social agents in December 2017, which implied an increase of 5% in 2019 (to €773).

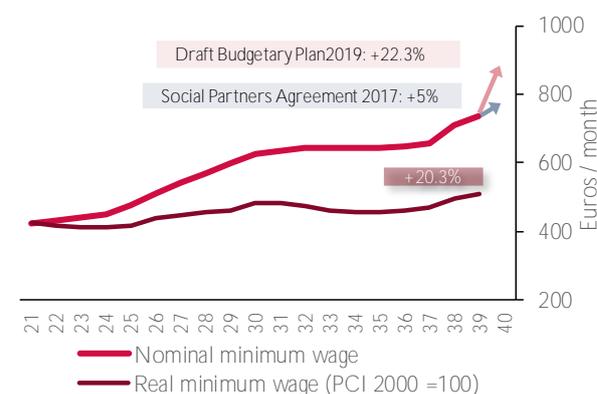
FIGURE B1. EVOLUTION OF THE MINIMUM WAGE (€)

1 After remaining stable for years and with slight losses of purchasing power, the minimum wage starts a trend with significant increases in 2017



Source. Own processing based on Ministry of Labour, Migrations and Social Security (MITRAMISS) and the INE

2 In relative terms, the increase envisaged in the Budgetary Plan implies a convergence with a set of advanced countries in the ratio minimum wage/median wage



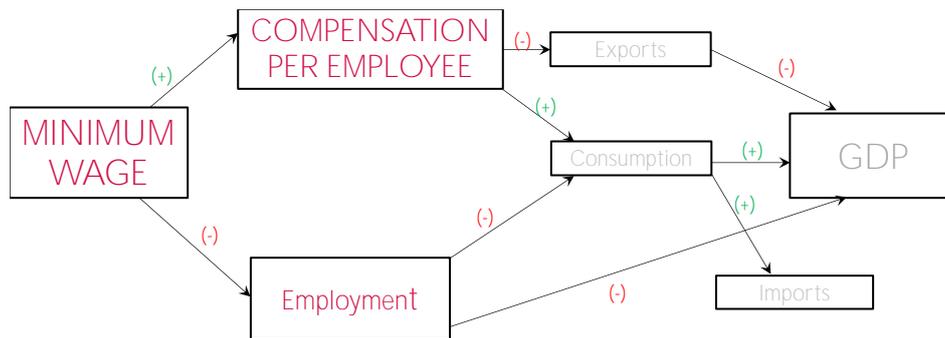
Source. OECD

(*) Australia, Belgium, Canada, Czech Republic, Estonia, France, Greece, Hungary, Ireland, Japan, Lithuania, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Poland, Portugal, Romania, Slovakia, South Korea, Turkey, United Kingdom, United States.

In order to assess the magnitude and possible impact of the measure on the labour market, it is pertinent to assess the evolution of the minimum wage in relative terms, alluding to indicators such as the Kaitz Index, which measures the evolution of the minimum wage in relation to another reference such as the average wage or the median wage. Thus, the minimum wage had been losing weight within the wage distribution since 2008, as can be seen in Figure 1.2 (decreasing evolution of the minimum wage/median wage ratio in Spain) until the rise in 2017. In addition, the weight of the minimum wage has remained steadily below that of the major advanced economies. Although it was partially stalled in the period 2002-2007, it has expanded again since 2008. If we include the expected value for 2019, considering the increase included in the Budgetary Plan, this would mean a convergence with the average of the rest of the advanced economies, having closed the gap completely in 3 years, from 2017 to 2019. As can be seen in Figure 2, the convergence would accelerate greatly in 2019 and it is precisely the speed of this adjustment that is one of the main sources of uncertainty of the measure.

Calibration of the shock

In order to assess the aggregate impact of the increase in the minimum wage to €900 in 14 payments included in the Budgetary Plan, a calibration exercise of its effects is carried out through different channels.



The first channel is based on the direct impact on the compensation per employee through the increase in the minimum wage, both by the increase in the minimum wage itself and by the possible dragging effect through collective bargaining.

The second channel would impact through employment. According to literature on the minimum wage, the impact on employment is usually negative, although in the short term it is usually restrained (see box 1 for more details of empirical evidence and theoretical channels of impact).

These two effects combine to affect the aggregate compensation of employees and the disposable income of households and thus private consumption and GDP. Changes in employment also directly affect GDP.

Finally, wage increases can have an effect on GDP through higher labour costs and thus a worsening of relative export prices, reducing their price competitiveness.

Impact on compensation of employees

Change in wages

Based on the microdata from the 2017 Continuous Work History Sample (MCVL for its acronym in Spanish), information can be obtained regarding the number of workers affected by the measure and the average wage per worker for those workers below the minimum wage.

Specifically, the group of workers affected by being below the new threshold would reach around 8% of the total, adding 1.2 million workers, compared to approximately 300,000 workers who received the previous minimum wage. With the minimum wage going from €10,302 to €12,600 per year,

compensation of employees will increase by €1.7 billion¹², from 599,600M€ (AIReF's 2019 estimate) to 601,300M€, an increase of 0.3%.

Change in employment

One of the most discussed aspects in the literature about the minimum wage is its impact on employment, with mixed results and evidence (see box 1 for a review of the main channels of impact on employment).

In order to obtain a specific elasticity for the Spanish case, the recent experience of the minimum wage increase carried out in 2017 is used. The exercise conducted compares the number of contributions in the minimum wage amount for 2016 and 2017, the year in which it increased by 8%. The counterfactual scenario, with absolutely no effects on employment, with which to compare the data of 2017 would be the number of workers who earned the minimum wage in 2016 plus those full-time workers in the wage distribution between the old and the new minimum wage, which in diagram 2 would be represented by the grey area.

The idea behind this design is that, in the absence of employment effects, all full-time workers at or below the new minimum wage would be paid this wage. The effects on employment could be inferred from the distance between the actual distribution of the number of workers receiving the minimum wage after the rise and this counterfactual scenario.

This counterfactual scenario can be seen in Figure 2.2 and corresponds to the pink bar on the left panel of the graph.

If we compare the size of this bar with the number of contributions observed in 2017, once we subtract the contributions that remain between the two levels after the increase and that can correspond to complementary payments, this is around 25% lower. To this we should add the growth of employment in that wage bracket during that year, which has been estimated at around 5%. The total elasticity, calculated on the population directly affected, would therefore be close to -30%.

¹² Applying the total of the increase to the 300,000 that already received minimum wage and half of the increase to the remaining 900,000 as a proxy (assuming that they are evenly distributed).

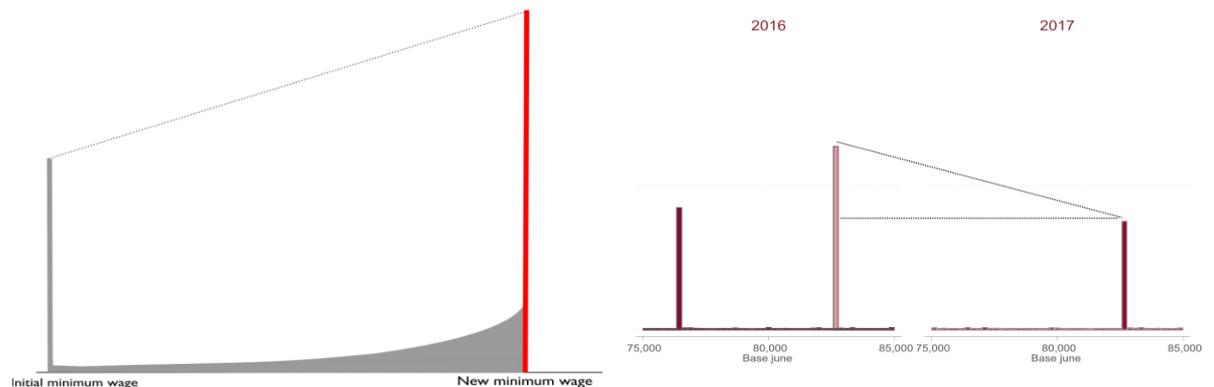
These may be contributors who were paid more than full-time minimum wage but were part-time, or workers who could be full-time but who become part-time with the new minimum wage.¹³

On the other hand, this loss of employment would have occurred mainly in the number of workers in the old minimum wage (eroding the peak, but not the number of workers between the old and the new peak, which hardly changes). This is important, as it would mean applying the elasticity of -8% to the 300,000 workers who received the old minimum wage, with those who are in the area between the two minimum wages being less affected. This would mean some 24,000 jobs affected or 0.15% of the total full-time employment expected by 2019.

This fall would lead to a decrease in total compensation of about 800M€, so that the net effect including the increase in compensation per employee would be about 900M€ more in 2019.

FIGURE B2. CALIBRATION OF THE IMPACT ON EMPLOYMENT

- ① In the absence of effects on employment, the increase of the minimum wage should influence the workers with a wage between the two minimum wages, before and after the increase
- ② This idea suggests a way of estimating the effect of the increase on employment as a difference with this counterfactual scenario, using, for example, the 2017 increase.



Source: MCVL, MTIM

¹³ Marcel Jansen, (2018), "Conviene Reformar el Salario Mínimo," Nada es Gratis, <http://nadaesgratis.es/marcel-jansen/conviene-reformar-el-salario-minimo-2>.

Impact on gross disposable income

This wage increase would raise the gross household income in nominal terms by a little less than 900M€ (households do not receive the part contributed or the part taxed by PIT, although as they are low incomes it would hardly have an effect, but it could be assumed that they receive 70% of that wage increase) which could mean that the GDI (the level is higher than that of compensation of employees) would increase by 630M€. This amount, added to the transfers considered in the Budgetary Plan, which represent some 1,260M€, implies an increase in the GDI of some 1,900M€, 0.25% (compared to the inertial forecast of €771,000 million for 2019).¹⁴

It should be considered that the estimated variation in compensation of employees would be a lower limit since it does not incorporate the effect of the increase in the maximum contribution base, proposed within the Budgetary Plan. However, this effect would not lead to an increase in private consumption as it would not be transferred to the household disposable income and thus to consumption.

There are additional uncertainties about the final impact on the household gross disposable income through additional income effects:

- The increase in gross disposable income could be reduced by the amount arising from the measure to increase PIT on high incomes, **which is around €330 million. Given the elasticities calculated above**, this effect would decrease GDI by 0.05%. This transfer of the rise of the PIT on high incomes to consumption assumes an equivalent marginal propensity to consume in high and low incomes, which could be overestimated. Specifically, based on microdata from the 2016 Household Budget Survey and the Living Conditions Survey, the consumption/income ratio is 2.5 for the first income decile as compared with 0.95 for the last. With this, the negative effect on consumption could be reduced to a negligible level.
- On the other hand, the green taxation measure mentioned above could also lead to a negative income effect and a reduction in private consumption. This impact would be small considering the elasticities

¹⁴ The transfers included are: Increase in funding for scholarships, aid for school supplies, improve minimum and agreed level of dependency, contributions to SS of caregivers, recover subsidy for over 52 years, minimum living income, meal aid, allow financial aid and improve nursery schools, housing policy.

estimated by AIRcF. The impact of the indicated shock of 6% would only reach 0.05% and would not have full effects until after 5 quarters.

Aggregate impact

Private consumption

The first-round effect of an increase in disposable income can be seen in the evolution of private consumption, whose behaviour equation includes gross disposable income in real terms (elasticity of 0.5), financial and non-financial wealth in volume, as well as credit to households for consumption, as short-term determinant variables.

The final impact on private consumption will depend on the evolution of the GDI in real terms, so it is necessary to first assess the possible impact on prices in order to deflate the evolution of the nominal GDI calculated at 0.25%.

Through the behavioural equation of the CPI¹⁵, and assuming a productivity per employee that varies marginally as a consequence of the impact of the measure, the increase in the State's financial liability would be transferred to unit labour costs and would thus affect prices by approximately 0.1%, leaving a GDI increase in real terms of 0.15% and a final positive effect on private consumption of around 0.1% (40% from the rise in the minimum wage and the rest from the transfers considered).

In this step there is an additional uncertainty regarding price behaviour:

- Additional price increases stemming from the income measures included in the Plan could end up having a positive but small impact on inflation. This would reduce the rise in gross disposable income in real terms. In particular, the effect of the green taxation measure **(revenues of around €670 million) on the general CPI could be** approximated through the structural equation of CPI, through a comparable rise in the price of crude oil. To calibrate the price increase of crude oil, the data of the fuel distributor CLH can be used, according to which the consumption of diesel A (does not include transport, only passenger cars) represents approximately 55% of the total fuels. Assuming a rise of around 12% for diesel for passenger cars, a 6%

¹⁵ The main determinants of the evolution of the core CPI are GDP, unemployment and labour costs (elasticity of 0.05).

increase in the price of crude oil could be expected, which could impact up to 0.1% on the CPI.

Exports

Ultimately, the minimum wage increase negatively influences the contribution of the external sector to growth through a loss in the price competitiveness and a subsequent fall in exports.

The impact is assessed through the behavioural equation of exports of goods and services, whose main determinants are world trade and the real effective exchange rate (REER). This exchange rate is composed of the product of a nominal exchange rate index times an index of Spain's relative prices with respect to its trading partners.

Assuming no change in the exchange rate index, the effect of the measures on the CPI seen above (0.1% upwards) was calibrated. The impact on the evolution of exports in 2019 would be negative, albeit small, at around 0.1%, given the estimated elasticities (-0.5 in the case of the real effective exchange rate).

Specifically, the evolution assumptions for the REER taken from the quarterly forecasts prepared by the ECB in September meant an increase of 0.6% in 2019, which, with the additional 0.1% growth due to the measure on the minimum wage, leads to a reduction of 0.1% in the growth of exports.

Additional elements of uncertainty

A substantial increase in the minimum wage in the current situation, with an unemployment rate close to 15%, low inflation and growth in line with its potential, entails risks, especially given that the possible negative effects are highly concentrated in segments of the distribution of low-skilled and low-productivity workers, such as young people and the long-term unemployed over the age of 45, especially affected by unemployment and job instability.

Although the evidence accumulated to date, both internationally and for Spain, is mixed and generally indicates that the negative effects on the level of employment are small, especially in the short term,¹⁶ a rise of this magnitude

¹⁶ When assessing the impact of an increase in the minimum wage on the creation and destruction of jobs, a distinction should be made between the short and the medium to long term. Indeed, there will be some delays in the impact of the increase

and announced in advance is not comparable with those experienced by the minimum wage in the past. This would increase the uncertainty about the dynamics of the labour market in the coming months and would require the continuous monitoring of its evolution, for which it is essential to have comprehensive and timely data sources from administrative registers, and the adoption of measures to mitigate possible negative effects.

Finally, the increase of the minimum wage could have effects on the distribution of income, beyond aggregate movements in employment, the assessment of which is beyond the scope of this report. In particular, an increase in the minimum wage could lead to a compression of the distribution of incomes by concentrating the positive effects of wage increases in the lower segments of the wage distribution (DiNardo et al., 1996; Lee, 1999). On the other hand, the impact on poverty and inequality indicators could become ambiguous, considering the entire working life of employees if it leads to episodes of unemployment longer than in the absence of the minimum wage (Cahuc and Zylberberg, 2004).

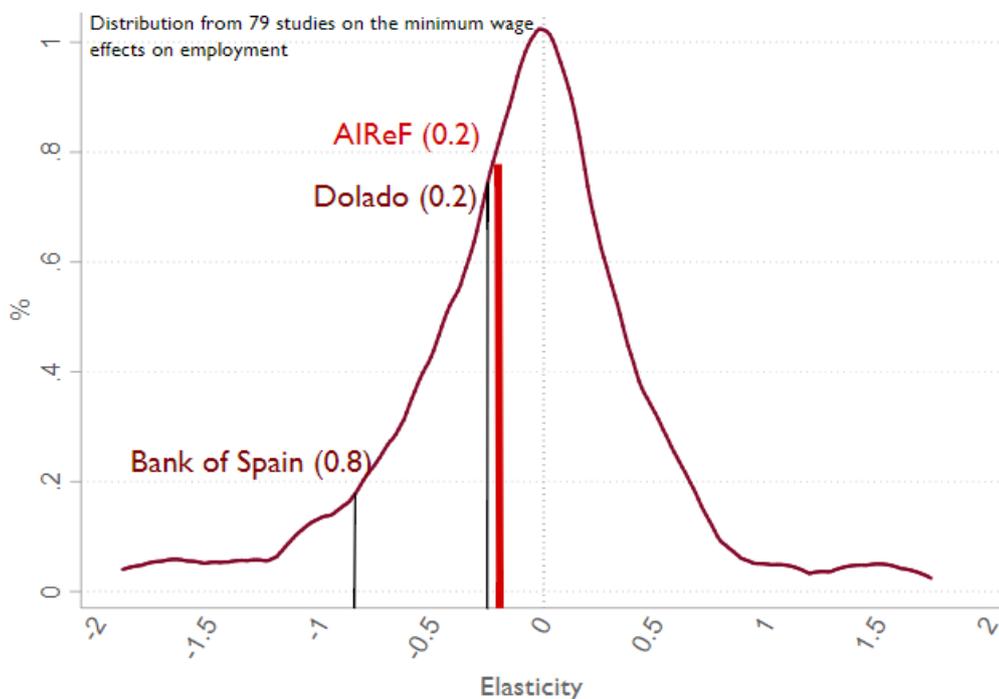
- Impact of the minimum wage on employment: evidence and channels

The literature concerning the impact of the minimum wage on employment is extensive and its results are far from conclusive. In general, it can be said that the effects of minimum wage increases on employment found in the literature tend to be small, to focus on very specific strata of the labour market, essentially young people and low-skilled workers, and be different between the short and the long term. They are also very heterogeneous and highly dependent on other labour market institutions, such as the collective bargaining system or the benefit system, as well as on the pre-existing level of the minimum wage.

As shown in the following figure, which reflects the elasticities obtained in 77 episodes analysed by Giotis and co-authors in 2015 for advanced countries in the last 30 years, the majority of cases are around 0, with a slight bias towards negative values.

in the minimum wage on employment as decisions concerning the termination of employment contracts as a result of an increase in wage cost will not be immediate and its negative effect on employment will be more pronounced in the medium to long term through a greater substitution of the labour factor by capital.

FIGURE B1. IMPACT OF INCREASES IN THE MINIMUM WAGE ON EMPLOYMENT (META-ANALYSIS OF ELASTICITIES)



Chtletsos and Giotis(2015) The employment effect of minimum wage . using 77 international studies since 1992: A meta-analysis.

A seminal work in this aspect was that of Card and Krueger of 1993 where they used a natural experiment (the increase of the minimum wage in XXXX) to study the effect of the minimum wage on the workers of fast-food restaurants and where they did not find any negative effect on employment caused by this increase. This study was extremely influential and resulted in multiple works corroborating its results but also contributions that questioned them, through refinements of the methodology or distinguishing between short and long term effects (Sorkin, 2015; Neumark, 2007; Dube, 2010).

In the case of Spain, starting with Dolado and Felgueroso (1997), the effects of different minimum wages increases and their effects on jobs and wages have been empirically analysed with mixed evidence. Among the most recent works are Galán and Puente (2012), who find that the minimum wage rises between 2004 and 2010 (35%) would have significantly increased the probability of certain group losing employment s, such as young people and, especially, workers over 45 years old. The effect of the increase in the minimum wage in 2017 on employment could be around - 0.1% (Bank of Spain, 2017).

The effect on total labour income would be small, as the positive effects on workers who keep their jobs tend to be offset by wage losses for those

who lose their jobs. However, there would be significant effects between different population groups, as in the case of young workers the improvement in income would offset the reduction in employment, but not in the case of workers over 45 years of age. (Galán and Puente, 2012b).

The incidence of the minimum wage in Spain has traditionally been reduced to stand below the minimum wages agreed in collective bargaining. However, there could be an indirect impact if the increases in the minimum wage are transferred to the wages negotiated in agreement (Galán and Puente, 2012b).

Economic theory helps interpret empirical results

At the theoretical level, there have also been developments that help us to understand the empirical evidence pointing to negative effects on employment, small or even absent in the face of increases in the minimum wage.

Specifically, the new literature on the existence of a monopsony or monopoly of supply in the labour market (Manning, 2002) emphasizes the concept of partial monopsony power, in which companies would have some market power and would maximize their profits in an amount exchanged less than an efficient or equilibrium amount. This effect would justify the existence of minimum wages.

Other theoretical justifications for the existence of minimum wages and explanations for the conclusive absence of employment effects are the so-called efficiency wages (Shapiro and Stiglitz, 1982), where the cost of losing a job increases for workers in the face of higher wages and would therefore increase their level of effort and productivity or an increase in the effort to search for jobs by the unemployed and a reduction in search time and an improvement in the matching function (Cahuc and Zylberberg, 2004).

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QUEST Model

The QUEST model is a dynamic stochastic general equilibrium (DSGE) model developed by the Directorate-General for Economic and Financial Affairs of the European Commission. It is a medium-sized model adapted to an open economy, whose optimising agents face shocks of different nature.

Companies possess market power and determine the level of production needed to meet the demand they face. The demand derived from factors (capital and labour) considers the presence of adjustment costs in their use. The QUEST model introduces an endogenous growth mechanism, through a specific productive sector oriented to research and development (R&D) whose production increases the productivity of the deployed capital.

Households are differentiated according to their access to the asset market: if this access is complete, their optimisation programme is inter-temporal and they determine the labour supply, consumption demand and the holding of assets (bonds and money). If access is limited, households consume only from disposable current income.

The supply of labour effort by households, both restricted and unrestricted, considers three levels of qualification (low, medium and high) that are manifested in different productivities.

The external sector of the economy considers the interest rate, the total output level and the price level as exogenous, all of them at the global level. Import levels are consistently derived from consumption and investment levels determined by the agents in the model, with relative prices between domestic and external prices acting as the main element in this determination. The treatment of exports is symmetrical with respect to world income. In turn, import and export prices are derived from domestic and world prices through the corresponding margins. Such margins are subject to stochastic shocks. Finally, the evolution of external assets is conditioned by the trade balance.

The model contains a fairly detailed representation of fiscal policy. As a central element, it incorporates a rules-based mechanism centred on the debt-to-GDP ratio. In this way, it has an endogenous mechanism that ensures the stability of the system, making the accumulation of debt sustainable. This mechanism uses a flat-rate net tax amount as an instrument that directly affects households, through the determination of their disposable income.

The levels of expenditure (consumption and public investment) are determined by dynamically adjusting them to exogenous levels, this dynamic being conditioned by the cyclical position, measured through the output gap. Unemployment benefits and pension expenditure act as automatic stabilisers, given the respective replacement coefficients, according to the level of unemployment and the retired population. Finally, from the point of view of

revenue, the model considers three taxes: taxes on final consumption, on capital income and on labour income. The first two are linear while the third adopts a progressive scheme.

On the other hand, monetary policy also follows a Taylor rule that determines the nominal interest rate based on the deviations of inflation from the official target and the cyclical position of the economy. The rule incorporates a smoothing mechanism that distributes the required changes in interest rates over time according to inflationary and cyclical conditions.

An important element of the model is that the numerical setting of most of the parameters has been carried out by means of their estimation from quarterly series since 1981. Technically, this estimation uses Bayesian procedures that combine a priori distributions for the parameters with the sampling information provided by the likelihood function.

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Additional documentation on QUEST can be found at the following link:

https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/economic-research/macroeconomic-models_en

Figures and tables

TABLE A1. EXOGENOUS ASSUMPTIONS AND MAIN MACROECONOMIC SCENARIO HYPOTHESES OF THE 2019 DRAFT BUDGETARY PLAN

	2018	Δ Oct-Jul	2019	Δ Oct-Jul
Short-term interest rates (three-month Euribor)	-0.3	0.00	-0.2	0.00
Long-term interest rates (10-year government debt, Spain)	1.6	0.0	1.8	-0.2
Exchange rate (USD / EUR)	1.18	-0.02	1.14	-0.06
World GDP growth, excluding the EU	3.9	-0.1	3.7	-0.2
GDP growth of the eurozone	2.0	-0.1	1.8	-0.1
Spanish export markets	3.6	-0.9	3.8	-0.5
Oil price (Brent, USD/Barrel)	73.4	-1.48	76.4	3.95
2018-2019 Forecast.				
(a) Growth rate over october (data bar are not shown)				
Source: Ministry of Economy and Competitiveness: Draft Budgetary Plab 2019, october 2018, and comparison to Report on the Situation of the Spanish Economy 2018 . July 2018.				

TABLE A2. FORECASTS BY INTERNATIONAL ORGANISATIONS AND MARKET EXPECTATIONS

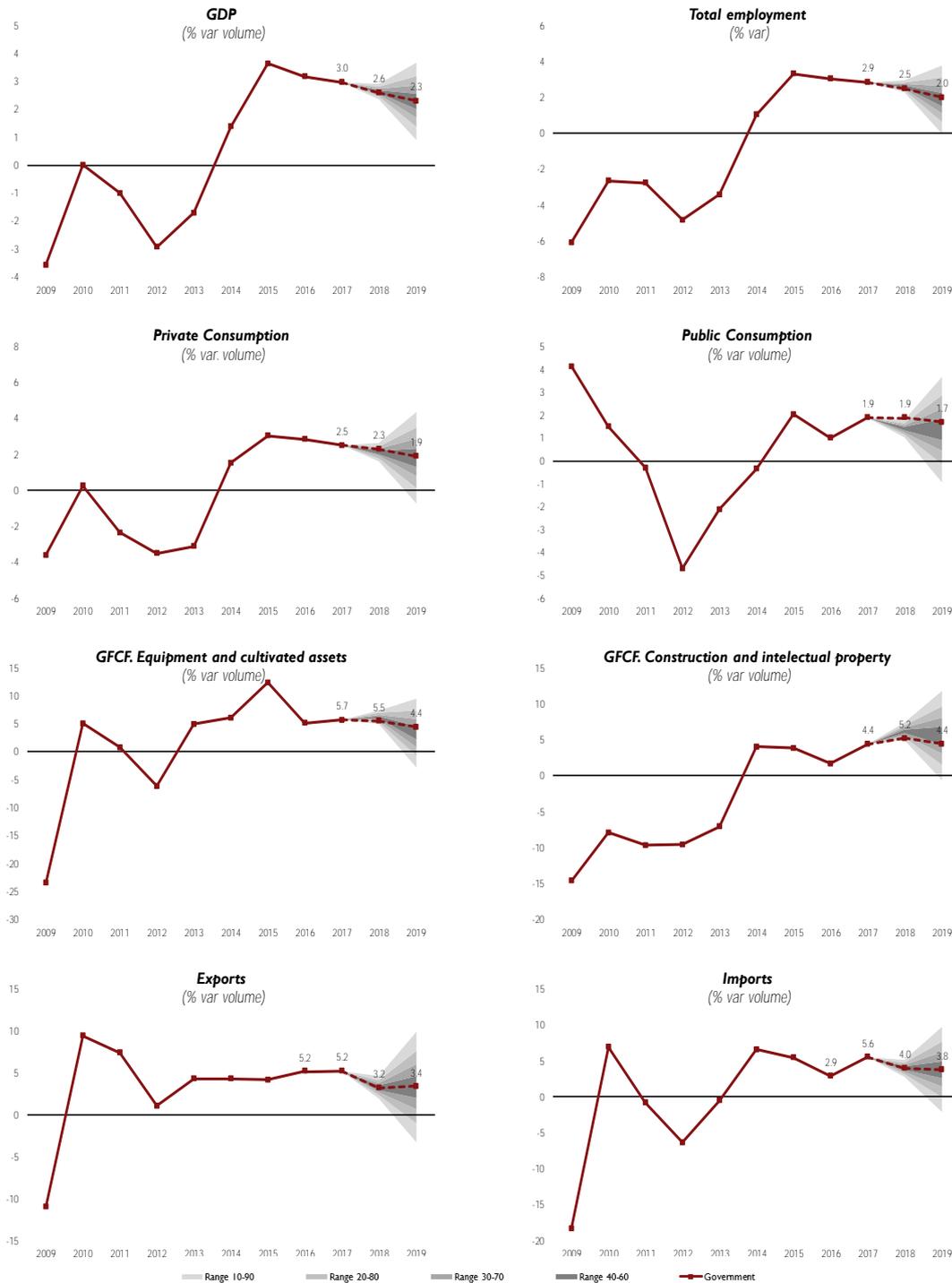
		2016	2017	2018
ECB (September 2018)	World GDP (ex euro area)	3.8	3.9	3.7
	Euro area GDP	2.5	2.0	1.8
	Imports of good and services (ex. euro area)	4.6	4.6	3.9
	Brent oil price (USD per barrel)	54.4	71.5	71.7
	Euribor three months (%)	-0.3	-0.3	-0.2
	Interest rates of euro-area 10-year public debt (%)	1.0	1.1	1.3
	USD/EUR exchange rate (level)	1.13	1.18	1.14
	Euro effective exchange rate	2.2	5.1	0.6
IMF (October 2018)	World GDP	3.7	3.7	3.7
	Euro area GDP	2.4	2.0	1.9
	EU GDP	2.7	2.2	2.0
	Trade of goods and services	5.2	4.2	4.0
	Brent oil price (USD per barrel)	54.4	71.9	72.3
	Libor six months (%)	1.5	2.5	3.4
European Commission (July 2018)	World GDP	3.9	4.2	4.1
	Euro area GDP	2.4	2.1	2.0
	EU GDP	2.4	2.1	2.0
	Imports of good and services	5.3	4.9	4.4
OECD (May 2018)	OECD GDP	2.6	2.6	2.5
	Euro area GDP	2.6	2.2	2.1
	Trade of goods and services	5.0	4.7	4.5
Market expectations July 2018)	Interest rates of Spanish 10-year public debt (%)	1.6	1.5	1.7
	Brent oil price (USD per barrel)	54.3	74.0	82.9

TABLE A3. MACROECONOMIC SCENARIO OF THE DRAFT BUDGETARY PLAN

	2017	Δ Oct-Jul	2018	Δ Oct-Jul	2019	Δ Oct-Jul
GDP (percent change, real terms)	3.0	-0.1	2.6	-0.1	2.3	-0.1
GDP at current prices: billions of euros	1,166.3	2.7	1,211.8	-0.9	1,261.3	-1.4
GDP at current prices: percent change	4.3	0.3	3.9	-0.3	4.1	0.0
DEMAND COMPONENTS (percent change, real terms)						
Domestic final consumption expenditure	2.4	0.2	2.2	0.0	1.8	0.0
- Domestic private final consumption expenditure (a)	2.5	0.1	2.3	-0.1	1.9	0.0
- Final consumption expenditure of general government	1.9	0.3	1.9	0.4	1.7	0.3
Gross capital formation	5.4	0.4	5.1	0.9	4.3	0.3
- Gross fixed capital formation	4.8	-0.2	5.3	1.1	4.4	0.4
Tangible fixed assets						
Construction	4.6	0.0	5.8	0.7	5.0	0.2
Capital goods and cultivated assets	5.7	-0.4	5.5	1.8	4.4	0.9
- Change in inventories (contribution in p.p.)	0.1	0.1	0.0	0.0	0.0	0.0
Domestic demand (contribution to GDP growth)	2.9	0.1	2.7	0.2	2.3	0.1
Export of goods and services	5.2	0.2	3.2	-1.5	3.4	-1.1
Import of goods and services	5.6	0.9	4.0	-0.6	3.8	-0.4
External balance (contribution to GDP growth)	0.1	-0.2	-0.1	-0.3	0.0	-0.2
PRICES (percent change)						
GDP deflator	1.2	0.2	1.3	-0.2	1.8	0.1
Deflator of private final consumption expenditure	1.6	-0.2	1.7	0.0	1.8	0.2
EMPLOYMENT AND WAGES (percent change)						
Remuneration (labor cost) per employee (c)	0.3	0.2	1.0	-0.2	2.0	0.5
Total remuneration (labor cost) (c)	2.9	-0.2	4.1	0.2	3.6	-0.4
Total employment (b)	2.9	0.1	2.5	0.0	2.0	-0.2
Productivity per worker (b) (c)	0.1	-0.1	0.1	-0.1	0.3	0.2
Unitary Labor Cost (ULC) (c)	0.2	0.3	0.9	-0.1	1.8	0.4
Memorandum (LFS data)						
Unemployment rate: % labor force	17.2	0.0	15.5	0.0	13.8	0.0
EXTERNAL SECTOR (% GDP)						
Net lending (+) / net borrowing (-) to the Rest of the World	2.2	0.2	1.5	-0.1	1.3	-0.2
2018-2019 Forecast						
(a) Households and NPISHs						
(b) Full-time equivalent employment						
(c) Compared with Stability Programme Update 18-21 (April 2018)						

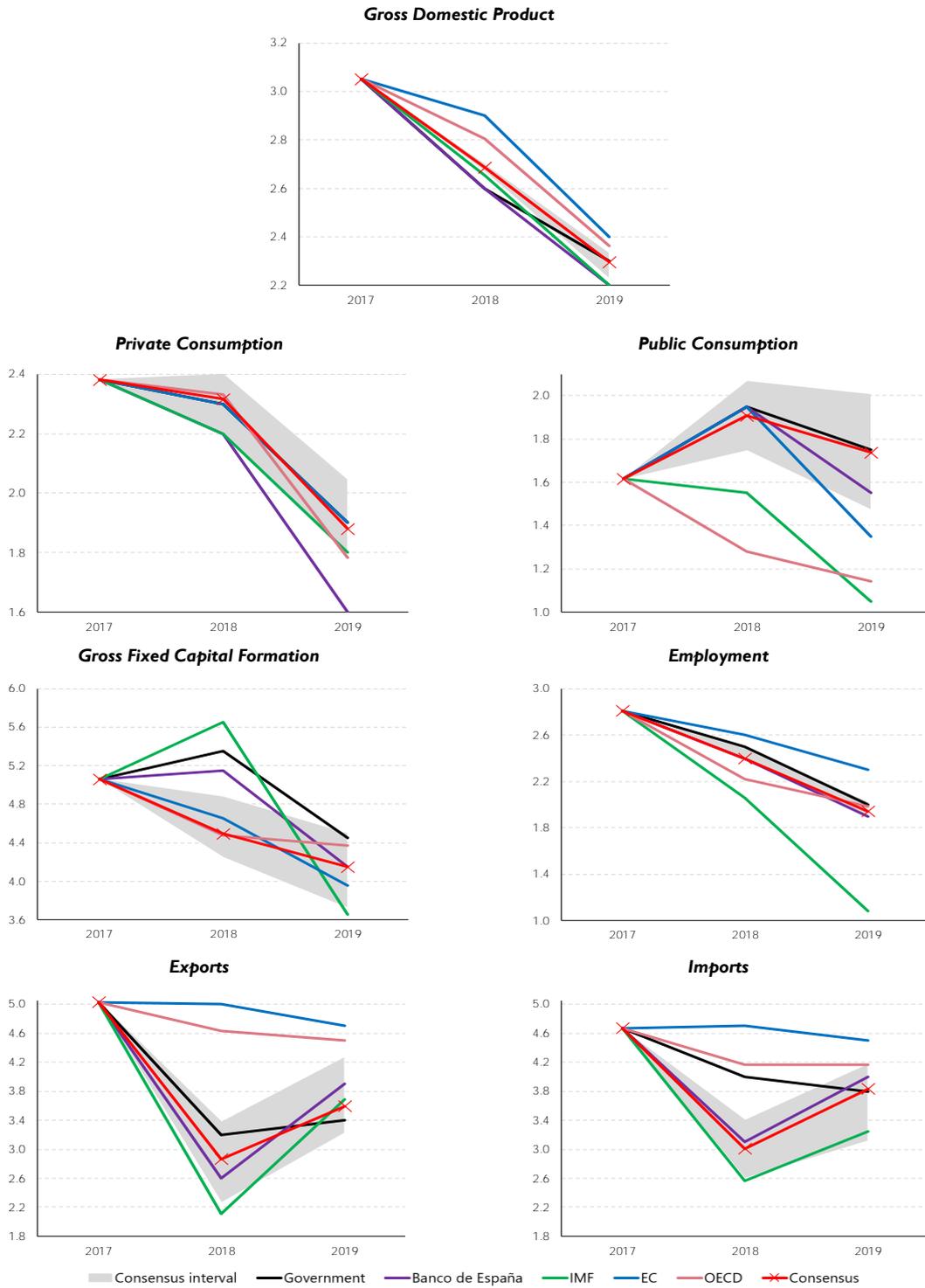
Source: MINECO

FIGURE B3. MACROECONOMIC SCENARIO OF THE 2019 DRAFT BUDGETARY PLAN AND AIREF'S CONFIDENCE INTERVALS



Source: INE, MINEICO and AIREF's estimates

FIGURE B4. GOVERNMENT FORECASTS AGAINST THE PANEL AND PUBLIC INSTITUTIONS



Source: INE, MINECO and AIReF's estimates