



# Reports on the main lines of the budgets of the Autonomous Regions for 2016

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

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## Executive summary

Over recent years the Autonomous Regions (ARs) in Spain have made a considerable effort to reduce their deficit, which fell by more than two percentage points of GDP between 2010 and 2014. In addition, as this adjustment took place against a backdrop of severe economic contraction in Spain most of the fiscal consolidation came from cutting expenditure.

The Autonomous Regions in Spain ended 2014 with a deficit equal to 1.8% of GDP and a very demanding target to further reduce their deficit to 0.7% of GDP this year. Indeed AIReF believes that this 1% reduction in the deficit will almost certainly not be achieved and estimates that the subsector will overshoot its 2015 target by between 0.9% and 0.8% of GDP.

In this context AIReF has to report on the main lines of the budgets prepared by the Autonomous Regions for 2016. Under the provisions of the LOEPSF and those contained in the Law establishing the Independent Fiscal Authority in Spain (Organic Law 6/2013), AIReF is mandated to issue a report on the regional budgetary lines from the standpoint of their adequacy for compliance with the expenditure rule and with the budget stability and government debt targets. Nevertheless, both the assessment and the recommendations that AIReF makes in this report bear in mind the medium and long-term context in which the trend in government debt and multiyear planning play a key role.

## Horizontal analysis of the AR subsector

From its horizontal analysis of the AR subsector AIReF concludes that there is a risk of non-compliance with the budget stability target in 2016, set at -0.3% of GDP. This risk stems primarily and in general from the aforementioned significant deviation from the 2015 stability target and from the uncertainty about the materialisation of certain revenue and expenditure items included in the budget scenarios put forward by the ARs.

The practically certain non-compliance with the 2015 stability target which AIReF already highlighted in the report it published on 15th July on expected compliance with budget stability, government debt and expenditure rule targets<sup>1</sup>, is confirmed with the data available at the time of publication of this report. As a result, the fiscal consolidation effort required for 2016 will be even greater. Although the increased resources in the financing system for the ARs under the common regime contribute to the achievement of part of the adjustment (0.7% of GDP), the development of all the other budget items

<sup>1</sup> [Report on expected compliance with the 2015 budget stability, government debt and expenditure rule targets by the public administrations in Spain](#)

included in the main budgetary lines and draft budgets of the ARs is not enough to guarantee the remaining consolidation required. To this end, AIReF has observed that the measures foreseen in the subsector as a whole and reflected in the budget scenarios have no significant impact and/or currently have still not been made sufficiently concrete.

Additionally, the forecast development of expenditure does not take into account in general compliance with the expenditure rule<sup>2</sup>. In some ARs compliance with this rule may entail a more demanding result than the stability target and increase the probability of compliance for the subsector as a whole. Although in 2016 the expenditure rule might constitute a more demanding target than the budget stability target in several autonomous regions, the budgetary scenarios they have put forward in the main lines do not generally expect lower deficits to be achieved than the stability target actually requires, except in the case of Canary Isles and La Rioja. Taken together with the deviations detected in the development of expenditure in the ARs whose deficit is greater this fact leads AIReF to believe that there is a risk that several Autonomous Regions will fail to meet the expenditure rule and that could have a knock-on effect on the subsector as a whole.

As far as the government debt target is concerned, despite the improvements made by MINHAP on AIReF's recommendation to the way the government debt targets are set for 2016 there are still difficulties in their assessment. In addition, the current design does not guarantee the medium or long-term sustainability of the debt because AIReF observes that compliance with the debt targets that have been set since 2013 has no connection with either the increase in the region's debt or with the gap to the long-term reference target ratio of 13% of regional GDP.

That is why AIReF has focused its analysis on the medium-long term sustainability of government debt. From this standpoint the debt in the AR subsector is seen to follow a sustainable and declining path after 2016, thought the rate of reduction will not be sufficient to reach the 13% debt-to-GDP ratio in 2020. To make this debt sustainability analysis—especially relevant in the individual evaluation of each region—AIReF has taken into account the

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<sup>2</sup> With regard to the expenditure rule, following AIReF's recommendation, IGAE has published a guide (available in Spanish) on its determination in ARs ([Guía para la determinación de la Regla de gasto CCAA](#)) although publication was subsequent to the information being sent by the ARs. That fact together with some gaps and shortcomings in the information itself have made it necessary for AIReF to develop a calculation methodology for the expenditure rule (Annex III).

existing balance as a ratio of GDP, its outlook, any possible liquidity tensions and the assessment of the region's creditworthiness.

## Individual analysis of the ARs

In the interests of making an appraisal of compliance with the fiscal rules in 2016, AIReF has analysed the budget lines and budget drafts of the Autonomous Regions that are available. Only in the case of Navarra and Catalonia for which no information on the budgetary lines or the draft budget were available at the time of drafting of this report AIReF has made up for this lack of information by using the data the regions send to MINHAP as part of the monitoring process of their Economic-Financial Plans (EFPs), adjustment plans and reports on the reorganisation of the regional public sector.

The picture is completed with an analysis of the sustainability of the debt in each region. From this perspective, when taking into account the level of debt, its dynamics, possible liquidity tensions in the short-term in the absence of the State's financing mechanisms and the credit rating, AIReF makes the following observations with regard to sustainability: Balearic Isles is not risk-free; Castilla-La Mancha and Murcia Region show risks; those risks are high for the Valencia Region and very high for Catalonia. Valencia and Catalonia would be affected by potential short-term liquidity tensions in the absence of the State financing mechanism. This scenario becomes particularly relevant in Catalonia's case due to the fact that the uncertainty about the political context there makes it more likely for the scenarios in which the regional debt becomes unsustainable to materialise. For all the other ARs no significant debt sustainability risks are observed.

In order to offer a comprehensive view of the situation of each region, AIReF has analysed their relative position as regards revenue and expenditure. The areas offering the most feasible leeway can therefore be identified in an initial approximation. To do this the calculations of the supplementary indicators that were included in the report AIReF published on 27th July on the individual targets of the ARs<sup>3</sup> were updated and completed. Annex II covers the methodology and charts that determine the relative positive of the ARs in relation to the subsector for revenue and expenditure.

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<sup>3</sup> [Report on the setting of individual budget stability and regional government debt targets for the Autonomous Regions](#)

**The key conclusions that can be highlighted from this analysis are as follows:**

- ✓ Compliance with the budget stability target for 2016 is likely in **Andalusia, Asturias, Basque Country, Canary Isles, Castilla y León, Galicia, Navarra, and La Rioja**. Furthermore, application of the expenditure rule could lead to these regions achieving an even lower deficit than the 0.3% target set insofar as this rule seems to demand a more restrictive development of expenditure than is compatible with the stability target, taking into account the forecast revenue scenario. Canary Isles and La Rioja, for instance, are forecasting reaching a deficit of below 0.3% of GDP. Furthermore, in these autonomous regions, no significant risks associated with the medium-term and long-term debt sustainability is observed. Within this group, Castilla y León and Galicia are the regions where the forecast development of expenditure could compromise the expenditure rule and in Andalusia a risk of non-compliance with the expenditure rule is detected.

A moderate risk of non-compliance with the 2016 budget stability target is seen in the Autonomous Regions of Balearic Isles, Cantabria, Castilla-La Mancha and Madrid, due to the uncertainty surrounding the development of certain items in the fiscal scenario and the economic impact of some of the measures planned.

**Balearic Isles** is putting forward a budget scenario that would allow it to achieve a 0.3% deficit-to-GDP ratio in which it includes the need to correct a realistic deviation at year-end 2015 of seven percentage points of GDP. The region's budget draft includes a substantive raft of taxation measures and announces the creation of a new tax scheduled to take effect in the second half of next year. Likewise, it regulates measures regarding personnel and public sector agreement expenditure that will be valid solely in 2016. With these tax-related measures the region has raised revenue collection using its normative taxation capacity, which up to now was below the average in the subsector. The assessment of the existence of risk concerns the fact that the expenditure measures are not quantified and the date of creation of the new tax for which at the moment there is no law at any stage of approval. Moreover, given the high level of baseline debt, this region is not exempt from risks of financial sustainability although its budget draft includes explicit and concrete actions targeted at fiscal consolidation.

**Cantabria** is putting forward a budget scenario that makes it difficult for the region to achieve a deficit of 0.3% of GDP in 2016, insofar as the region does not take into account the need to correct the deviation at year-end 2015 which AIReF is estimating will be around half a percentage point of GDP. For the purposes of correcting this deviation that is not forecast in the budget lines and drafts, this region could use the leeway it seems to have both on the revenue side by exercising its normative powers over taxation that are currently below the average in the subsector and on the expenditure side where its relative position is above average. No significant risks associated with its debt sustainability in the medium and long term are seen.

**Castilla-La Mancha** is putting forward a budget scenario to reach a 0.3% deficit-to-GDP ratio in which it takes into account the need to correct a realistic deviation at year-end 2015 of half a percentage point of GDP. However, uncertainties are seen regarding the outlook for capital and interest payment expenditure, which the region is forecasting below the lower bound of the band estimated by AIReF. For the purposes of correcting the possible deviation, on the assumption that the risks described do materialise, this region has leeway in its normative taxation capacity, which is below the regional average. Moreover, given the high baseline debt figure there are risks in this region for financial sustainability, although the outlook for development of debt is not for growth in the medium-term period considered and is in line with the process of fiscal consolidation.

**Madrid Region** is putting forward a budget scenario designed to achieve a 0.3% deficit-to-GDP ratio in which it takes into account the need to correct a realistic deviation at year-end 2015 of half a percentage point of GDP. Nevertheless, there are uncertainties stemming from the forecast development of the revenue scenario that puts the region's forecasts above the band estimated by AIReF. For the purposes of correcting the possible deviation in the event this revenue-side risk does materialise the region has a comfortable margin to increase revenue through its normative capacity over taxation by raising taxes as they are significantly below the regional average. Along the same lines, a much greater use of tax benefits can be highlighted in this region when compared to the subsector average. No significant risks associated with the debt sustainability in the medium and long term are observed.

- ✓ A risk of non-compliance with the budget stability target is seen in **Aragón**, although it is not possible to quantify it at the moment. This region has still not made public its draft budget. In the main lines sent to AIReF it puts forward a budget scenario that would allow it to achieve a 0.3% deficit-to-GDP rate in which it takes into account the need to correct a realistic deviation at 2015 year-end of 1.5% of GDP. Aragón has reported measures that are in a preliminary phase of their passage through the parliament. As regards revenue, the region is forecasting putting in place a broad array of tax measure although to date there is no law going through parliament to underpin them. Moreover, it is estimating a year-on-year reduction of overall current expenditure on goods and services and current transfers of 0.7% of GDP, based on measures for which at the moment only the general lines of their scope are known. The size of the adjustment to be made, together with the lack of definition of measures that have still not been approved, entail a risk of non-compliance whose size will be appraised by AIReF in its report on budgets to be published in the first quarter of next year. No significant risks associated with its debt sustainability in the medium or long term are observed.
- ✓ A very high risk of non-compliance with the budget stability target is seen in Extremadura, Catalonia, Murcia and Valencia Region. All of these regions will have to make an adjustment equivalent to more than two percentage points of GDP in 2016.

**Extremadura:** is putting forward a budget scenario that does not allow it to achieve a 0.3% deficit-to-GDP ratio. The region takes into account the need to correct next year a deviation at year-end 2015 that is approximately seven tenths of a percentage point lower than AIReF's estimates. In addition, there are uncertainties surrounding the development of the revenue forecast by the region from EU funds. The tensions linked to compliance with the fiscal targets do not seem to be on the revenue side given that the revenue sufficiency indicator is higher than the subsector average. With a view to analysing possible actions that could be taken by the region AIReF sees some leeway for it reduce expenditure as Extremadura has the highest like-for-like expenditure (together with Cantabria) of all the common regime autonomous regions. Less leeway seems to exist for measures to increase revenue as this region has exercised more of its tax-raising capacity than any other region, and the weight of tax benefits as a percentage of GDP in 2015 is lower. No significant risks associated with the medium and long-term sustainability are observed.

**Catalonia** is the only region that does not have any main budgetary lines or budget draft. According to the information supplied as part of the quarterly monitoring of the EFP, the region does not take into account in its 2016 scenario the need to correct a deviation to be consolidated at year-end 2015 that AIReF estimates at around 1.5% of GDP. Additionally, the expenditure scenario shows a downward trend that does not seem likely in the absence of any measures. As for possible lines of action for the region, some leeway is seen on the side of expenditure and tax benefits, which are higher than the average in the subsector. However, the region's use of its normative capacity to raise taxes is above the average in the subsector. Moreover, given its high level of baseline debt, its non-declining trend and the potential liquidity risks in the absence of State financing mechanisms, there are very high risks for financial sustainability. Furthermore, the uncertainty of the political context in the region makes the materialisation of the scenarios leading to unsustainable debt levels more likely.

**Murcia Region** is putting forward a budget scenario that does not allow it to achieve a 0.3% deficit-to-GDP ratio. The region does not take into account the need to correct a deviation in the 2015 year-end result that AIReF is estimating to be higher than 1.5% of GDP. For the purposes of studying possible actions the region could take, AIReF notes that although expenditure on essential public services in this region is above the average for the subsector, when the analysis is extended to cover total expenditure the region is at the average level for the subsector. On the other hand, AIReF notes that the sufficiency indicator for revenue places this region below the average in the subsector despite the fact that its use of its normative taxation powers is higher than the average for the autonomous regions. Finally, given the high level of baseline debt and its non-declining outlook, there are risks for the financial sustainability of the Murcia region.

**Valencia Region** is putting forward a budget scenario that aims to achieve a 0.3%-to-GDP ratio by taking into account the correction of a realistic deviation in the 2015 year-end result of 1.5% of GDP. Nevertheless, the adjustment forecast by the region relies essentially on a transfer from the State for an amount equal to 1.3% of GDP that AIReF cannot consider as certain because this transfer is not included in the State General Budget. As regards the leeway open to this region take action, AIReF observes that its expenditure is below the subsector

average both in aggregate terms and on essential services. On the other hand, it does not seem that there is a greater margin to act on the revenue side because the sufficiency indicator puts this region at the extreme end of the regions that are under the subsector average, in spite of the fact that it is one of the regions that has made most use of its normative capacity on taxation. Moreover, given the high level of baseline debt, its non-declining trend and the potential liquidity risks, there are high risks for the financial sustainability of the region.

## Recommendations

After analysing the budget lines and draft budgets prepared by the Autonomous Regions for 2016, AIReF makes a number of recommendations aimed at *“ensuring effective compliance by the Public Administrations with the budgetary principle set forth in article 135 of the Spanish Constitution”*, as it is mandated to do in the law establishing the independent fiscal authority in Spain.

Within this framework of “ensuring compliance”, the first action taken by AIReF when assessing the budgetary principle in the case of the autonomous regions is to make an evaluation of their budgets right from the initial drafting of their main lines. The aim of this statutory early assessment by AIReF is definitely to detect as soon as possible any risks so decisions can quickly be taken to rectify the situation.

AIReF believes that it is essential to work on two fronts and so makes recommendations covering both. One is the promotion of the preventive arm of the LOEPSF by enhancing the possibility of early action by both the autonomous region and by MINHAP and the other is the improvement of the institutional framework and implementation of the fiscal rules. These recommendations, which are for immediate implementation when it comes to bringing the budget lines and draft budgets in 2016 in line with the stability and debt targets and the expenditure rule, are made in a broader context seeking consistency in the medium-term and long-term fiscal framework.

### Recommendations focusing on preventive action under the LOEPSF

AIReF’s view is that early action is a commitment on all the Autonomous Regions regardless of whether or not they have any risk of deviation from their targets when they are undertaking thorough monitoring of the implementation of their budgets by reinforcing the role of the regional general audit services in the early detection of risks for compliance with fiscal rules. Additionally, in the case of some ARs with a high risk of deviation from the targets, AIReF is of the view that MINHAP should take action. Consequently, AIReF once again makes use of the procedure provided for in the law establishing the independent authority for fiscal responsibility and its regulations and requests, as it did in December 2014, activation by MINHAP of the preventive non-automatic measures in article 19 of the Organic Law 2/2012 of 27th April on

Budgetary Stability and Financial Sustainability. In this context, AIReF makes the following recommendations:

- ✓ Budget implementation must be monitored on an ongoing basis and the monitoring has to be particularly strict in the ARs with medium-long term debt sustainability problems.

In the ARs with a risk of non-compliance with the stability target AIReF has identified in this report some “weaknesses” in their main lines and draft budgets that entail a risk for compliance with the fiscal rules in 2016. These areas should therefore be the focus of specific monitoring. Likewise, AIReF has indicated in this report possible levers that are available to the regions for action to be taken. For this purpose, as part of a process of follow-up on the recommendations AIReF will request information on the development of the detected risks and on any actions that may have been taken. **AIReF recommends that:**

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*All regional governments, notwithstanding the particular recommendations for each individual region, should apply the automatic prevention measures included in article 18 of the Organic Law on Budgetary Stability and Financial Sustainability (Ley Orgánica de Estabilidad Presupuestaria y Sostenibilidad Financiera (LOEPSF), so that the general audit services (or equivalent units) in the Autonomous Regions can report on a regular basis on their monitoring of the budget implementation and on whether decisions should be taken for early correction of the possible deviations that might arise.*

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- ✓ In the case of the Autonomous Regions of Extremadura, Catalonia, Murcia and Valencia, AIReF detects a clear risk of non-compliance with the stability target for 2016. Consequently, in line with the Organic Statute governing AIReF, this possible deviation is highlighted as a separate section in the report for the purposes provided for in article 21 of the Organic Law 6/2013 of 14th November establishing AIReF. This report is therefore sent to the Ministry of Finance and Public Administrations (MINHAP) in Spain so that it can start implementing the *non-automatic preventive measures* set out in article 19 in the Organic Law 2/2012, of 27th April on Budget Stability

and Financial Sustainability<sup>4</sup>. In the framework of warnings of risk of non-compliance and within the one-month deadline set out in article 19 of the LOEPSF for the adoption of measures **AIReF makes the following recommendation:**

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***MINHAP should ask Extremadura, Catalonia, Murcia and Valencia Regions for a multiyear planning document whose level of detail, binding nature and duration should take into account, with due consideration for the specificities of each autonomous region, the following aspects:***

- ***the particular situation of each one of these regions as regards their relative position compared to the whole subsector for revenue, expenditure and exercising of normative capacity;***
- ***the financial amount of the adjustment to be made;***
- ***and the sustainability of their debt path and the contribution of the region to making it sustainable from the standpoint of the two factors that are most directly dependent on their own action: their commitment to the consolidation of public accounts and the maintenance of a stable institutional framework.***

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***This medium-term planning exercise, agreed between the Region and MINHAP, must take the concrete form of annual programmes forming part of their budgets and the EFPs that are put forward and approved in the Fiscal and Financial Policy Council.***

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<sup>4</sup> Extremadura, Murcia and Valencia Autonomous Regions still have to submit and approve an EFP plan because of non-compliance with the stability target and—except for the Region of Murcia—the expenditure rule in 2014. Given the proximity of 2015 year-end results, these documents are no longer relevant for the correction of the deviation in 2015. The scenario and the measures in 2016 are now superseded by the draft budgets that are in their passage through the regional parliaments and will be the road map of the next financial year.

## Recommendations focusing on improving the institutional framework

AIReF sees several aspects with room for improvement that affect the framework for establishing, implementing and evaluating the fiscal rules. This evaluation requires clear and publicly known methodological criteria, in which the National Accounts Technical Committee has a prime role to play in their definition as regulated in the organic law establishing AIReF. But even though two years have elapsed since it was set up this committee still does not have any rules of procedure on how it is to function. That makes it difficult for AIReF to have a dialogue of any kind with the committee to try to ensure it complies with its legal obligation of sending AIReF its reports.

With a view to the improvement of the institutional framework, ***AIReF makes the following recommendations:***

✓ **Setting debt targets:**

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***MINHAP should design a system to set debt targets that complies with the function of oversight of the EDP debt and in which it should incorporate a revision of the debt reduction path so that the path is a credible, demanding reference that allows the Public Administrations to guarantee financial sustainability.***

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✓ **Application of the expenditure rule:**

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***MINHAP should draft implementing rules for the content of article 12 of the LOEPSF with the aim of having comprehensive regulation of the expenditure rule including aspects relating to the calculation, application and procedures for exchange of information between the Public Administrations. In this context it would be very useful to set up working groups within the Fiscal and Financial Policy Council and the National Local Administration Commission in which in-depth examination and discussion of this rule can take place.***

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✓ Evaluation of the fiscal rules in a multiyear framework:

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*The regional governments should consolidate the budget as a document in which specific annual form is given to the multiyear planning of the region in the medium term. This multiyear planning is especially important at a time when several governments have to define their fiscal action plan for the next four years.*

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*MINHAP should promote this multiyear programming in the field of budgetary coordination and the activation and implementation of the corrective measures provided for in the LOEPSF. In particular, the preparation discussion and approval of the EFPs should be placed within the context of a multiyear outlook without prejudice to the more detailed breakdown that can be made for the two years covered in the plan.*

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✓ Evaluation of the fiscal rules in a framework of methodological transparency:

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*The National Accounts Technical Committee —created by the first additional provision of the LO 6/2013—should approve and publish in the BOE its internal rules of procedure and so comply with the provisions of section 2 of that provision.*

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*The National Accounts Technical Committee should provide AIReF with the reports issued as part of the discharging of its duties and so comply with the provisions of section 4 in the same first additional provision cited above.*

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# Report on the General Government sector draft budgets and main budgetary lines in 2016: Autonomous Regions subsector

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## 1. Introduction

AIReF has to issue a report on the draft State General Budget (SGB) and the main budgetary lines of the budgets for 2016 prepared by the Autonomous Regions (ARs) and the Local Corporations (LCs) in Spain. In accordance with the provisions of the Organic Law on Budgetary Stability and Financial Sustainability (*Ley Orgánica de Estabilidad Presupuestaria y Sostenibilidad Financiera*, known by its Spanish acronym LOEPSF) and the legislation establishing AIReF as the independent fiscal authority in Spain (Organic Law 6/2013), AIReF is mandated to publish before 15th October each year a report on the draft SGB and the main lines of the budgets submitted by the Autonomous Regions and the Local Corporations from the standpoint of their adequacy for compliance with the expenditure rule and the budget stability and government debt targets.

This assessment report on the Autonomous Regions completes AIReF's analysis of the drafts and budgetary lines for the General Government sector in Spain for 2016. Exceptionally this year the process of analysing the sector has had to be split up because of the elections that have been held in Spain at different times during the year<sup>5</sup>. This year AIReF has had to alter the scheduled dates for publication of its report as a consequence of the earlier than anticipated submission to the Spanish Parliament of the SGB and the local and regional government elections held during the year. Due to these exceptional circumstances AIReF's report has been divided up into subsector individual reports, the last one being this assessment of the Autonomous Regions. This subsector report was also further delayed because several of the new regional governments did not prepare the budgetary lines until the submission of the draft budgets to their own regional parliaments.

## 2. Object of the report and limitations on its scope

The object of this report is an assessment of the main lines and budget drafts for 2016 for each autonomous region and the subsector taken as a whole from the standpoint of compliance with the three fiscal rules defined in the LOEPSF. AIReF has prepared this report using the available

<sup>5</sup> [Report on the 2016 Draft SGB](#)

[Report on Local Corporations 2016](#)

information it has received on the main lines of the Autonomous Regions' budgets for 2016, which has been completed or updated with the draft budgets submitted by the regions. The report analyses the adequacy of the lines and the draft budgets for compliance with the budget stability, government debt and expenditure rule targets. With this aim in mind, AIReF has made an analysis for each region of its revenue and expenditure estimates, the measures and national accounting adjustments planned, as well as the available information on debt and the expenditure rule for 2016. In the case of revenue from the tax on asset transfers and documented legal acts (*Impuesto sobre Transmisiones Patrimoniales y Actos Jurídicos Documentados*, ITPAJD) AIReF has evaluated the Autonomous Regions' data by checking them against a forecasting model it has developed in-house. The methodology behind that model is explained in Annex I.

The individual analysis of each autonomous region has been completed with an appraisal of the subsector as a whole.

**The evaluation of the lines and draft projects for 2016 also incorporates a debt sustainability study.** The medium and long-term sustainability of the debt path is assessed by means of a deterministic analysis based on the debt accumulation equation. In that equation, changes in the debt-to-GDP ratio are determined by the interest-growth spread, the primary balance and the stock-flow adjustments. The development of the debt path is checked against simulated scenarios with different degrees of stress on the determinants. This assessment is made at the level of the Autonomous Regions subsector as well as individually for each region by calculating different fiscal and macroeconomic stress indicators both in the short and medium term for the different ARs.

**The analysis is completed with the study of the relative position of each region compared against the subsector for revenue and expenditure.** In order to offer a more comprehensive picture of the relative position of each region going beyond its own individual compliance or not with the fiscal rules, the supplementary indicators described in the report on the individual targets of the ARs issued in July<sup>6</sup> have been updated. These indicators determine the position of each region in relation to the subsector as regards to what extent they have used their normative capacity on taxation and their like-for-like primary expenditure. The methodology and the results of the analysis are explained in Annex II to this report.

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<sup>6</sup> [Report on distribution of targets in Autonomous Regions](#)

**The scope of the report has been constrained in its evaluation of the debt target and the expenditure rule. In the case of the stability target, AIReF has been able to overcome the initial limitations:**

- ✓ Government debt target: AIReF has not been able to evaluate compliance with the debt target because of the lack of information on the forecasts for certain elements that form part of the calculation of the debt target.
- ✓ Expenditure rule: AIReF has not received the information requested from all the ARs and gaps and shortcomings are detected in general in the information that it has received. Following AIReF's recommendation, the State Comptroller's Office in Spain (IGAE) recently published a guide on how to determine the expenditure rule for the Autonomous Regions<sup>7</sup>, which was designed to be a useful tool for the ARs to calculate and apply the rule. Nevertheless, that publication came out subsequent to the preparation of the data sent by the Autonomous Regions and that is why their data are not always in line with the methodology published. Moreover, MINHAP does not publish any detailed information on the calculation of the eligible expenditure required for estimates to be made. Lastly, methodological doubts still exist that affect the homogenous nature of the information provided. The consequence of these limitations is that AIReF's analysis has been based on a series of assumptions and estimates it has used to try to determine the possible effect compliance with the expenditure rule may have on the Autonomous Regions' accounts and their relationship with the stability target.
- ✓ Budget stability target: due to the time taken for the formation of new regional governments the presentation of the main lines of the budgets by some of the ARS has been later than scheduled this year. At the time of publication of this report these lines are still not available for two regions: Catalonia and Navarra. These regions have provided AIReF with the information available for 2015 and 2016 that they send MINHAP as part of the process of its monitoring and follow-up on the Economic-Financial Plans (EFPs), adjustment plans and reports on the regional public sector reorganisation.

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<sup>7</sup> [Guía para la determinación de la Regla de gasto CCAA](#)  
(available in Spanish)

### 3. Budget stability target and expenditure rule

#### A. Results of the assessment

**There is a risk of non-compliance by the Autonomous Regions subsector with the budget stability target set for 2016 at -0.3% of GDP.** The risk of non-compliance with the stability target for 2016 stems primarily and in general from the likely deviation from the 2015 stability target that is not taken into account in the budget lines for 2016 and from the uncertainty about the materialisation of certain revenue and expenditure items contained in the budget scenarios submitted. Additionally, the forecast development of expenditure does not take into account, in general, compliance with the expenditure rule that in some ARs would mean a more demanding result to be achieved than the stability target and so would offer some leeway for the subsector.

**The updating of the estimates made by AIReF confirm the risk of non-compliance for 2015 stated in the report it published on 15th July on the expected compliance by the General Government sector with the targets<sup>8</sup>.** In that report, AIReF highlighted that the ARs might end 2015 by overshooting the target by a similar amount to the previous year. Circumstances since that report was issued now point to a larger deviation than before as shown in Table I:

- ✓ The baseline situation is worse than originally thought: the publication of the provisional 2014 year-end figures (1.8% of GDP) has meant that the deficit is 0.1% of GDP higher than the initial forecast for the ARs subsector.
- ✓ Higher year-on-year change in expenditure: according to the budget implementation data to date, primary non-financial uses are increasing at a higher year-on-year rate than recorded to April (the reference month used in the July report forecasts).
- ✓ The booking to 2015 accounts of capital expenditure by Catalonia in previous years: following Eurostat criteria, certain capital expenditure items arising from public-private partnership contracts signed by Catalonia Region in previous years totalling €1.318 billion (0.1% of national GDP, 0.6% of the region's GDP) have to be recorded in 2015 accounts.

<sup>8</sup> [Report on compliance with 2015 stability and expenditure rule targets](#)

- ✓ Revision by some ARs of their year-end forecasts: Aragon, Castilla-La Mancha, Extremadura, Madrid and Valencia have included in the information they supplied AIReF 2015 year-end forecasts with a deviation from the stability target that is similar to or higher than the deviation AIReF estimated in its July report.

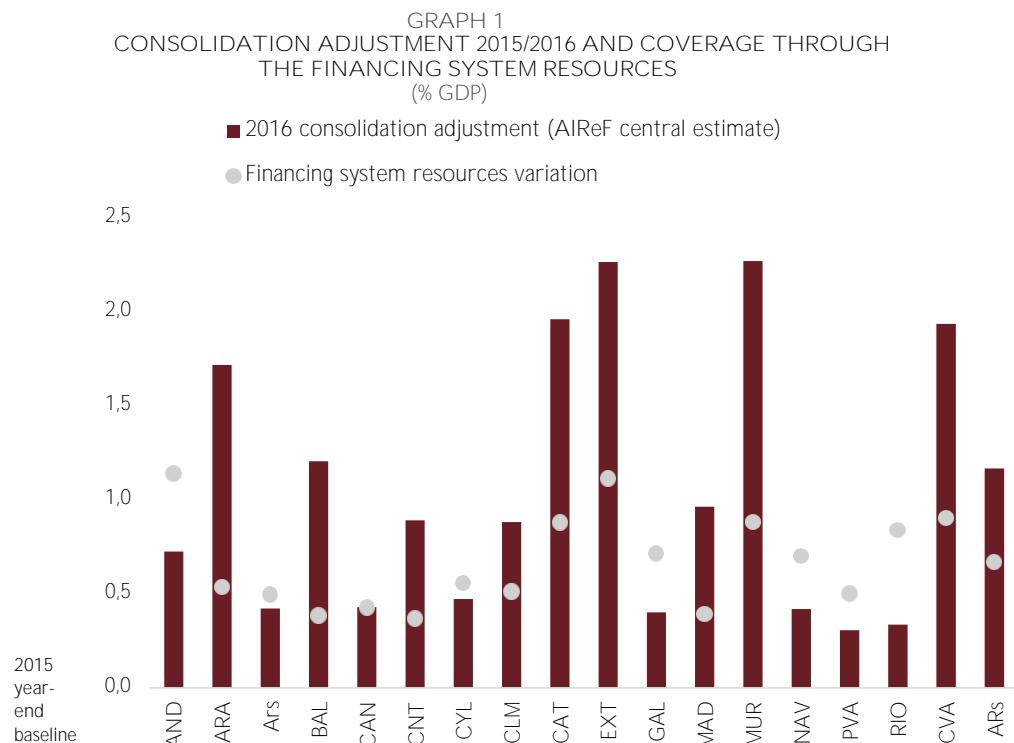
TABLE 1  
AIREF FORECASTS 2015 YEAR-END ARs (% GDP)

Autonomous Regions	AIReF forecasts for 2015 year-end (%GDP)	
	Lower	Higher
Andalusia	-1,1	-0,9
Aragón	-2,1	-1,9
Asturias	-0,8	-0,7
Balearic Isles	-1,6	-1,4
Canary Isles	-0,8	-0,7
Cantabria	-1,3	-1,1
Castilla y León	-0,8	-0,7
Castilla-La Mancha	-1,3	-1,1
Catalonia	-2,9	-2,8
Extremadura	-2,6	-2,5
Galicia	-0,8	-0,6
Madrid Region	-1,3	-1,2
Murcia Region	-2,7	-2,4
Navarra	-1,2	-1,0
Basque Country	-0,7	-0,5
La Rioja	-0,7	-0,6
Valencia Region	-2,3	-2,1
Total Autonomous Regions	-1,6	-1,5

**Should the 2015 year-end forecasts materialise compliance with the target in 2016 would require an adjustment amounting to more than 1% of GDP. As a general rule, an adjustment of this size is not incorporated into the budgetary lines submitted by the ARs for next year.** According to the information available at the time of preparation of this report, the main lines of the budgets prepared by the regions for 2016 and the draft budgets they have submitted do not generally contain the baseline deviation stemming from non-compliance with the stability target in 2015. Only Aragon, Balearic Isles, Castilla-La Mancha, Madrid, Navarra and Valencia use as their baseline 2015

year-end figure a forecast that includes a deviation similar to the one estimated by AIReF.

**The growth in the resources of the regional financing system can cover 0.7% of the fiscal adjustment needed for 2016 (between -1.2% and -1.3% of GDP).** Graph 1 shows the 2015-2016 consolidation adjustment in each region in line with AIReF's central estimate, and the part covered by the increase in 2016 of the financing system resources. A more detailed breakdown with the intervals into which AIReF's forecasts fall can be found in Table II.



Source: **AIReF's estimates.**

Note: The distance between the end of the bar and the dot represents the part of the adjustment (required to meet the -0.3% target) that is not covered by the increase in the regional financing system resources. The figure for the net borrowing in national accounts terms for 2015 corresponds to the **central point of AIReF's estimate**.

In the case of Catalonia and Navarra the 2015 baseline does not include the accounting regularisation operations referred to in Table II.

**However, the growth in the resources in the system is not sufficient to guarantee compliance with the stability target in 2016.** Although the increase in the financing system resources enables some of the adjustment to be made (0.7% of GDP), the forecast development of all the other revenue items and of expenditure does not seem to endorse the achievement of the remaining adjustment required to hit the target:

- On the one hand, in the subsector overall there are no major impact measures that justify any significant growth in the other revenue or any reduction or containment of expenditure.
- On the other hand, in Andalusia part of the consolidation arising from the increase in resources in the regional financing system subject to interim payments and final settlement is cancelled out because of the growth put forward for expenditure.
- Lastly, uncertainties are detected in the forecast development for some items:
  - ✓ Revenue from the State other than from funding from the regional financing system. Some ARs forecast receipts from the State that are not contained in the SGB and that might amount to 0.1% of GDP.
  - ✓ Interest expenses. The valuation of this item does not seem to be consistent in several ARs with the conditions stemming from their participation in the additional financing mechanism set up under Royal Decree-Law 17/2014 and has significant differences when compared with AIReF's estimates.
  - ✓ Current expenditure. The reduction or containment of spending put forward in some current expenditure lines does not seem to be consistent with the measures adopted, the available information and the budget implementation observed to date. This could mean 0.1% higher expenditure than the expenditure forecast in the lines or in the drafts.

TABLE II  
FISCAL CONSOLIDATION ADJUSTMENT 2016 (% GDP)

Autonomous Regions	Forecasts 2015		2016 target	Consolidation adjustment in 2016				
				Total		Variation financing system resources (*)	Remaining adjustment	
	Lower	Higher		Maximum	Minimum			
Andalucía	-1,1	-0,9	-0,3	-0,8	-0,6	1,1	0,3 0,5	
Aragón	-2,1	-1,9	-0,3	-1,8	-1,6	0,5	-1,3 -1,1	
Asturias	-0,8	-0,7	-0,3	-0,5	-0,4	0,5	0,0 0,1	
Balearic Isles	-1,6	-1,4	-0,3	-1,3	-1,1	0,4	-0,9 -0,7	
Canarias	-0,8	-0,7	-0,3	-0,5	-0,4	0,4	-0,1 0,1	
Cantabria	-1,3	-1,1	-0,3	-1,0	-0,8	0,4	-0,6 -0,4	
Castilla y León	-0,8	-0,7	-0,3	-0,5	-0,4	0,6	0,0 0,1	
Castilla-La Mancha	-1,3	-1,1	-0,3	-1,0	-0,8	0,5	-0,5 -0,3	
Catalonia (1)	-2,9	-2,8	-0,3	-2,0	-1,9	0,9	-1,2 -1,0	
Extremadura	-2,6	-2,5	-0,3	-2,3	-2,2	1,1	-1,2 -1,1	
Galicia	-0,8	-0,6	-0,3	-0,5	-0,3	0,7	0,2 0,4	
Madrid	-1,3	-1,2	-0,3	-1,0	-0,9	0,4	-0,6 -0,5	
Murcia	-2,7	-2,4	-0,3	-2,4	-2,1	0,9	-1,5 -1,2	
Navarra (2)	-1,2	-1,0	-0,3	-0,5	-0,3	0,7	0,2 0,4	
Basque Country	-0,7	-0,5	-0,3	-0,4	-0,2	0,5	0,1 0,3	
La Rioja	-0,7	-0,6	-0,3	-0,4	-0,3	0,8	0,4 0,6	
Valencia Region	-2,3	-2,1	-0,3	-2,0	-1,8	0,9	-1,1 -0,9	
Total ARs. (1) (2)	-1,6	-1,5	-0,3	-1,2	-1,1	0,7	-0,5 -0,4	

(\*) In the case of Navarra, the resources from the system are understood to be the resources from the estimate of tax revenue under agreements for personal income tax (IRPF), corporation tax (IS), VAT and excise taxes (IIIE). In the case of the Basque Country, the estimate stemming from financing from the *Diputaciones Forales*.

(1) In Catalonia, 2015 year-end includes the regularisation of investments from previous years made through public-private partnership. As this operation is not repeated in 2016 it does not affect the total consolidation adjustment to be made which amounts to 0.6% of GDP.

(2) In Navarra, 2015 year-end includes the possible regularisation of operations from previous years with the State, which, as they are not repeated in 2016, does not affect the total consolidation adjustment to be made and that amount to 0.4% of GDP.

Both operations, (1) and (2), amount to 0.1% of GDP for the subsector as a whole

Source: AIReF estimates and information supplied by the ARs

**In 2016 a risk of non-compliance with the expenditure rule is seen for several ARs. In some of them their compliance with the reference growth rate for the expenditure rule would determine a more demanding balance than the balance that would stem from the stability target.** The analysis of the stability target has been completed with a study of the potential effect of the application of the expenditure rule maximum annual growth rate of 1.8% for the eligible expenditure under the rule. The methodology described in Annex III has been used to carry out this study with certain constraints due to the

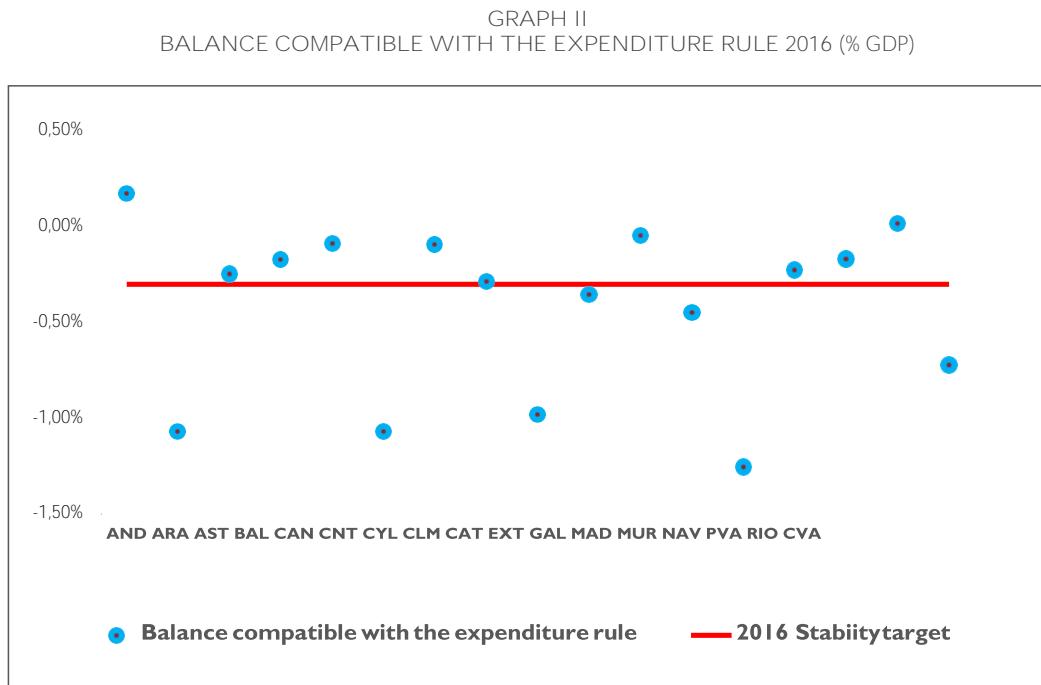
shortcomings of the information available. AIReF infers from the results of the analysis that as the expenditure rule will require in 2016 a more demanding balance to be achieved than needed for the stability target for some Autonomous Regions, the likelihood of compliance would increase for the subsector overall.

However, AIReF observes that the forecast development of expenditure in general does not take into account the possible constraint that may be entailed by application of the expenditure rule, except in two regions: Canary Isles and La Rioja. These two regions are forecasting they will outperform the result that would be in line with the target set. This circumstance does not exist in the Basque Country, Navarra and Asturias, but implementation of their expenditure scenario might lead to necessary additional spending restraint in order for them to comply with the expenditure rule.

In Galicia, although the region has taken into account the expenditure rule in the scenario it has put together, it is forecasting that the development of the expenditure put forward to achieve the -0.3% target would allow it to comply with the rule. This forecast differs from AIReF's estimates. The calculations made by the region do not take into account some elements that have appeared subsequently in the IGAE Guide to determining the expenditure rule in the ARs.

In Castilla y León and Galicia, therefore, the forecast development of expenditure might compromise compliance with the expenditure rule. In Andalusia, a risk of non-compliance with the rule is observed. In all of them, the expenditure rule seems to demand a more restrictive balance than the balance that would be achieved from the stability target. In Castilla-La Mancha, Catalonia, Extremadura and Valencia —and to a lesser extent in the Balearic Isles—, the regions that do not fall under the former assumption above, AIReF's estimates a risk of non-compliance with both rules.

In any event, it should be noted that whenever there is an Economic-Financial Plan (EFP) for a region, it is the EFP that determines the reference growth rate for the purposes of the expenditure rule. Nevertheless, except in the case of the Basque Country EFP, in the plans analysed by AIReF there is not enough information to allow for calculation and monitoring of the expenditure rule.



Source: AIReF estimates

Note: The graph reflects the net lending/borrowing of each one of the ARs compatible with compliance with the expenditure rule and with regard to the stability target, according to AIReF's estimates.

**The Autonomous Regions can be divided into different groups on the basis of their compliance with the stability target and the expenditure rule in 2016:**

- ✓ **Autonomous Regions where AIReF believes compliance with the stability target for 2016 is likely: Andalusia, Asturias, Canary Isles, Castilla y León, Galicia, Navarra, Basque Country and La Rioja.** Furthermore, by applying the expenditure rule these regions might end up achieving an even lower deficit than the 0.3% target insofar as this rule seems to require a more restrictive development of expenditure than would be compatible with the stability target taking into account the forecast expenditure scenario. Canary Isles and La Rioja, for instance, are forecasting a deficit of less than 0.3% of GDP in 2016.

In this group, the forecast development of expenditure in Castilla y León and Galicia might compromise their compliance with the expenditure rule and in Andalusia a risk of non-compliance with the rule is identified.

In Andalusia's case compliance with the stability target requires strict implementation of the expenditure budget taking into account the possible initial deviation, which will be the baseline because of non-compliance in 2015. In Navarra's case, compliance is subject to the timing of the accounting of the regularisation of operations with the State from previous years that the region has indicated has still to be decided on. In principle, the region is expecting that this one-off operation will be booked in 2015 accounts and so will impact compliance with the target in that financial year. If they are not accounted for in 2015 the risk of non-compliance would be shifted forward to 2016 and the operation would not affect the 2015 target.

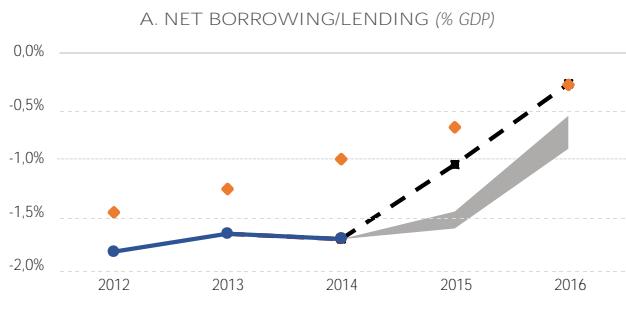
- ✓ **Autonomous Regions in which a moderate risk of non-compliance with the budget target is detected: Balearic Isles, Cantabria, Castilla-La Mancha and Madrid.** The reason is the uncertainty about the development of certain items in the budget scenario and the implementation and economic impact of some of the measures forecast.
- ✓ **A risk of non-compliance with the budget stability target is detected in Aragon, although it is impossible to quantify the risk at the current time** given the size of its initial deviation from target and the early stage of implementation of measures put forward by the region for correction of that deviation.
- ✓ **Autonomous Regions in which a very high risk of non-compliance with the budget stability target is detected: Extremadura, Catalonia, Murcia and Valencia.** These Autonomous Regions will have to make an adjustment of more than two percentage points of GDP in 2016.

Table III summarises the position of the Autonomous Regions as regards the stability target:

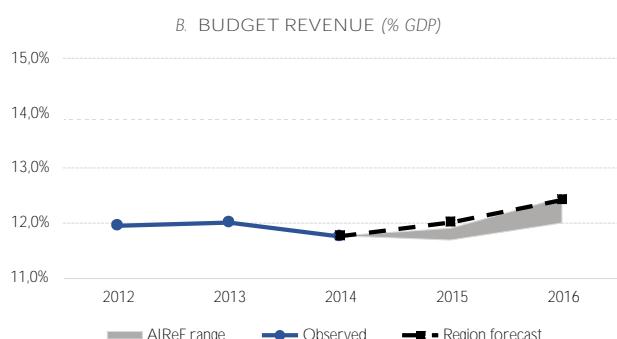
TABLE III  
AIReF FORECASTS NET LENDING/BORROWING 2016 ARs (% GDP)

Autonomous Regions	2016				
	AIReF forecasts		Stability target	Deviations from stability target	
	lower	higher		Maximum	Minimum
Andalusia	-0,5	-0,3	-0,3	-0,2	0,0
Aragón	-1,1	-0,6	-0,3	-0,8	-0,3
Asturias	-0,4	-0,2	-0,3	-0,1	0,1
Baleares	-0,9	-0,5	-0,3	-0,6	-0,2
Canary Isles	-0,1	0,1	-0,3	0,2	0,4
Cantabria	-0,9	-0,5	-0,3	-0,6	-0,2
Castilla y León	-0,4	-0,2	-0,3	-0,1	0,1
Castilla-La Mancha	-0,7	-0,4	-0,3	-0,4	-0,1
Catalonia	-1,6	-1,2	-0,3	-1,3	-0,9
Extremadura	-1,5	-1,0	-0,3	-1,2	-0,7
Galicia	-0,4	-0,1	-0,3	-0,1	0,2
Madrid	-0,8	-0,5	-0,3	-0,5	-0,2
Murcia	-1,6	-1,2	-0,3	-1,3	-0,9
Navarra	-0,3	-0,1	-0,3	0,0	0,2
Basque Country	-0,3	-0,1	-0,3	0,0	0,2
La Rioja	-0,1	0,1	-0,3	0,2	0,4
Valencia	-1,5	-1,3	-0,3	-1,2	-1,0
Total Autonomous Regions	-0,9	-0,6	-0,3	-0,6	-0,3

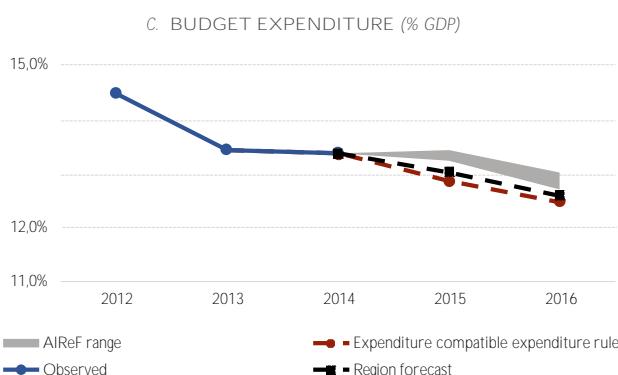
GRAPH III  
BUDGETARY STABILITY AND EXPENDITURE RULE



- Risk of non-compliance with the stability target in 2016 in the AR subsector.



- Uncertainties in the revenue forecasts made by the ARs



- Possible deviations in the expenditure forecast by the ARs.
- The expenditure that is compatible with the expenditure rule might demand a greater restriction on spending than forecast by the ARs and than the one AIReF is estimating will be made.

Source: INE, MINHAP and AIReF estimates

## B. Indicators of the relative position of the Autonomous Regions compared against the subsector in revenue and expenditure

In order to offer a complete picture of the position of each region that is not only limited to how it stands with regard to compliance with the fiscal rules, AIReF has updated and completed the calculations of the supplementary indicators that were included in its report published on 27th July on the individual targets of the Autonomous Regions<sup>9</sup>. Annex II, therefore, contains the methodology and graphs that determine the relative position of the Autonomous Regions compared against the subsector in revenue and expenditure.

As far as taxes are concerned, the graphs show for 2015 and for the common regime Autonomous Regions their use of their normative capacity to raise tax rates for the key taxes ceded to them (ITPAJD, regional Hydrocarbons tax rate, regional rate of the IDMT) as well as the extent of their implementation of regional taxes, the weight in GDP of the tax revenue collection impact for their use of their power to raise tax rates and of the tax benefits approved.

Moreover, the level of per capita like-for-like primary expenditure in the period 2012-2013 and the net borrowing or lending that the ARs would have had as an average in the period 2012-2014 on the assumption that their per capita like-for-like expenditure were aligned with the average in the subsector are shown.

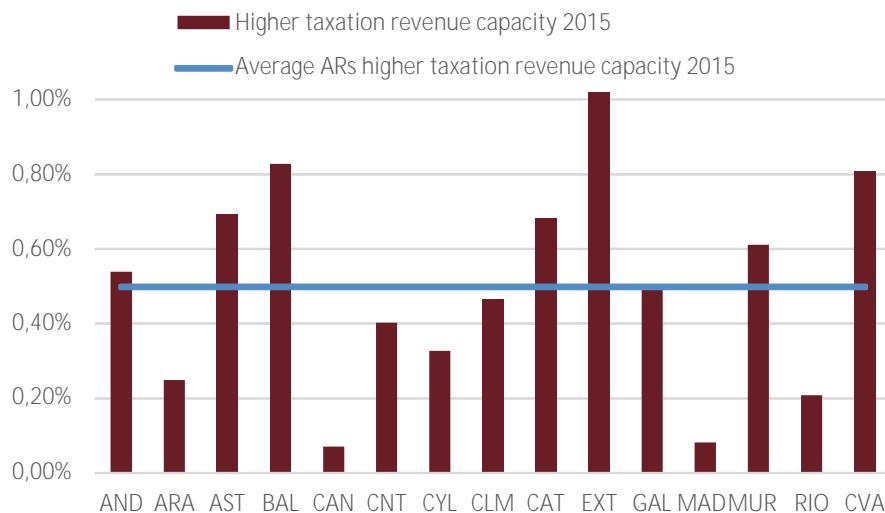
The conclusion that can be drawn from Graph IV is that the revenue collection impact as a percentage of regional GDP of the normative competences to raise tax rates estimated for the regions of Aragon, Canary Isles, Cantabria, Castilla y León, Castilla- La Mancha, Madrid and La Rioja is below the subsector average.

However, the tax benefits quantified for 2015 represent a weight of GDP that is higher than the average in Balearic Isles, Cantabria, Catalonia, Madrid and La Rioja, as can be seen in Graph V.

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<sup>9</sup> [Report on distribution of targets in Autonomous Regions](#)

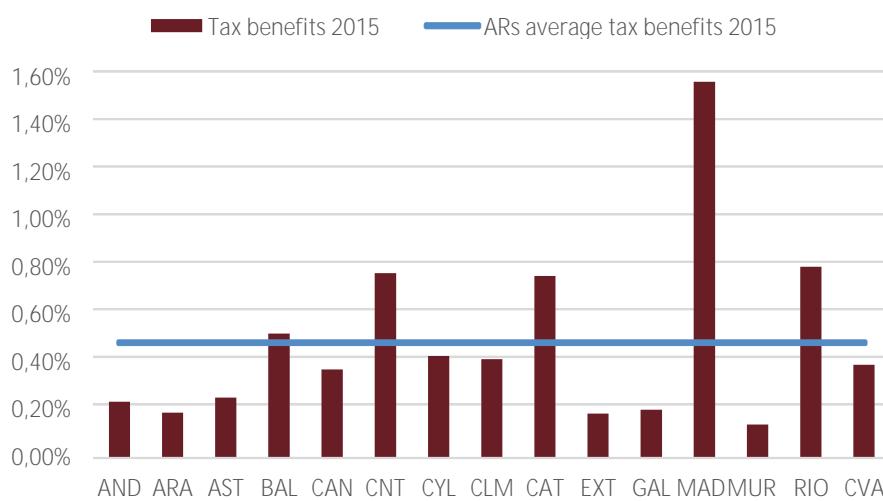
GRAPH 1V  
EXERCISING OF NORMATIVE CAPACITY TO RAISE TAX RATES 2015 (%GDP)



Source: INE, MINHAP, ARs and AIReF estimates.

Note: This indicator measures the positive revenue collection impact in 2015 estimated by AIReF as a % of GDP of the normative tax measures approved by each region.

GRAPH V  
TAX BENEFITS 2015 (%GDP)

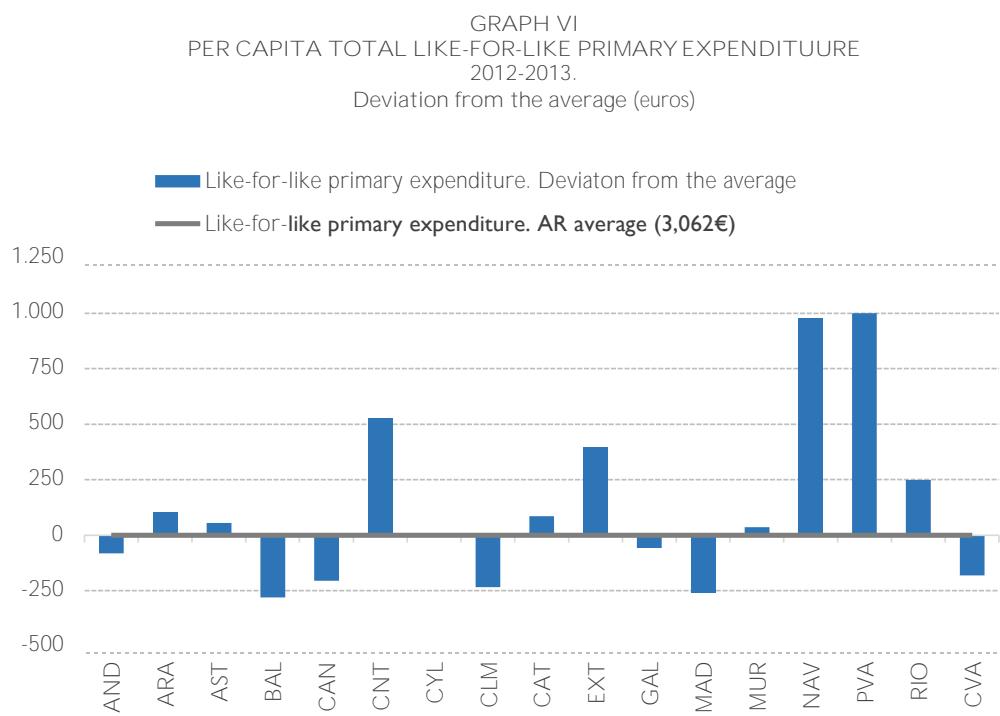


Source: INE, MINHAP, Autonomous Regions and AIReF estimates.

Note: This indicator measures the estimate in 2015 made by AIReF as a % of GDP of the reduction in revenue from taxes ceded stemming from normative measures approved by each region.

This analysis made for 2015 is affected by how much use of their normative powers on taxation some Autonomous Regions are planning to make for 2016 in the budget drafts or laws on measures to be taken. For instance, Castilla y León, Galicia, Murcia, La Rioja and Valencia are all forecasting using normative competences that will lead to a reduction in their tax revenue collection, whereas Andalusia, Aragon, Balearic Isles, Catalonia and Extremadura will use their normative powers over taxation to raise more revenue. Given that the data available is not complete, however, it has not been possible for AIReF to evaluate for all the ARs the effect of those powers and with them their impact on the average of the total for the subsector.

**As far as expenditure is concerned, on average between 2012-2013, in addition to the regions with special taxation regimes, Cantabria, Extremadura, La Rioja and to a lesser extent Catalonia, Aragón and Murcia, have maintained a higher level of like-for-like primary per capita expenditure than the average in the subsector and therefore their deviation compared to that regional average is greater. This is shown in Graph VI.**

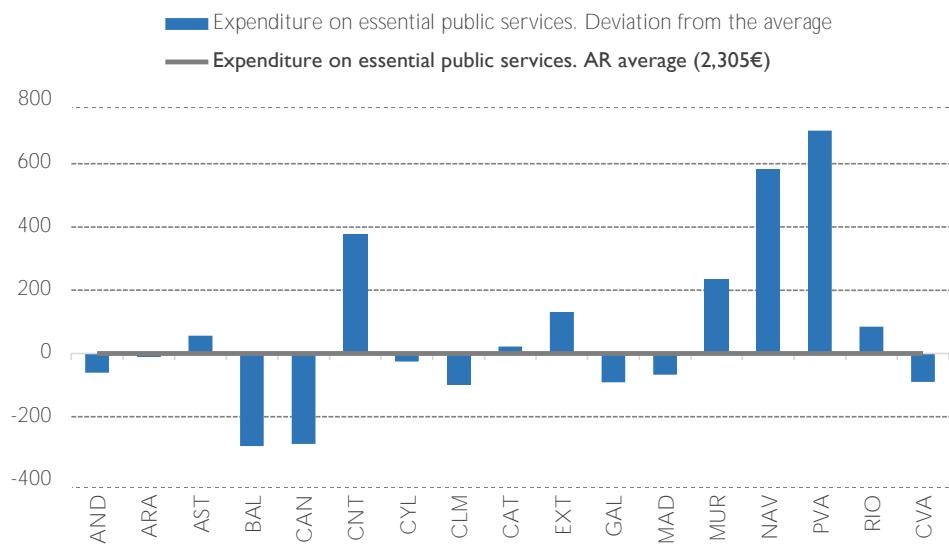


Source: MINHAP and AIReF estimates.

Note: This indicator measures the non-financial primary expenditure, net of payments from financing system resources, per adjusted inhabitant in the period 2012-2013, in terms of like-for-like powers over expenditure.

The analysis of total spending has been completed with the calculation of the average per capita expenditure on basic fundamental services during 2012-2013. In Graph VII the results obtained are shown with similar results to the total expenditure.

GRAPH VII  
PER CAPITA LIKE-FOR-LIKE SPENDING ON BASIC PUBLIC SERVICES 2012-2013.  
Deviation from the average (euros)

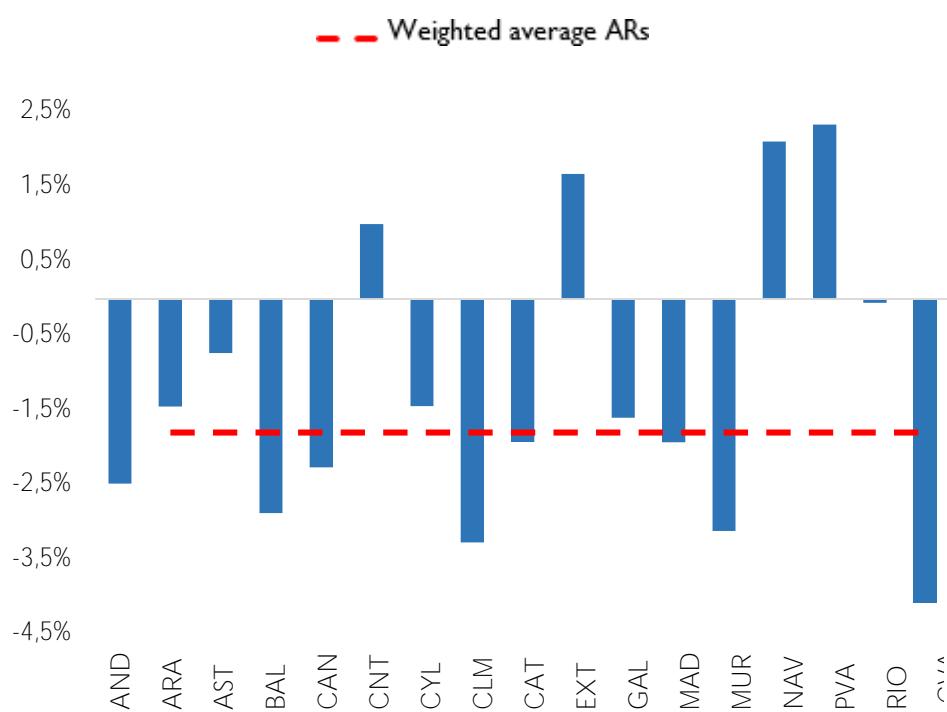


Source: MINHAP and AIReF estimates.

Note: This indicator measures the expenditure per adjusted inhabitant for the period 2012-2013 on health, education and social protection functions in the Functional Classification (COFOG).

Lastly, Graph VIII represents the net lending or borrowing in national accounts terms as a percentage of GDP that each region would have had if their like-for-like expenditure had been aligned with the average. The graph shows that in addition to Navarra and the Basque Country, two other regions—Cantabria and Extremadura—would have had higher than average revenue sufficiency in the period 2012-2014 if their like-for-like expenditure had been the average.

GRAPH VIII  
REVENUE SUFFICIENCY GIVEN AVERAGE LIKE-FOR-LIKE PRIMARY EXPENDITURE (%GDP)



Source: INE, MINHAP and AIReF estimates.

Note: This indicator measures the net lending or borrowing as a % of GDP as an average for the years 2012-2014 if the like-for-like primary expenditure per adjusted inhabitant had been the average in the subsector.

## 4. Government debt and financial sustainability

### A. Government debt target

**In the case of the Autonomous Regions as well as being set a debt target for the whole subsector, an initial target is also set for each autonomous region that can subsequently be expanded.** The way the system the Ministry of Finance and Public Administration (MINHAP) has put in place to set the debt targets for the Autonomous Regions works is that first an initial target is set that can be expanded at year-end to incorporate certain debt operations that are deemed to be “exceptions”. This expanded target amending the initial figure is the target against which compliance is measured. The way to find out what debt increases are allowed under the target is to consult the Resolutions of the Council of Ministers on setting debt targets and the reports published by MINHAP on compliance with targets<sup>10</sup>. In line with this information, the initial targets are calculated by including the debt increases that are considered as “minimum” increases and at year-end they can be enlarged to incorporate debt increases corresponding to certain debt operations that are called “exceptions”.

Therefore, the net increases in debt that come into the calculation of the target 2016<sup>11</sup> and that will allow the ARs to comply with the target are:

a) The increases included in the initial target:

- Increase to finance the deficit allowed by the 2016 stability target (0.3% of regional GDP)
- Increases to finance the amount in 2016 of the deferral of the refund to the State of the 2008 and 2009 negative settlements in the financing system (as well as the deferred settlement of the compensation Canary Isles region has to pay the State because of the elimination of the General Turnover Tax (*Impuesto General del Tráfico–IGTE*-)).

<sup>10</sup> [Informe sobre el grado de cumplimiento del objetivo de estabilidad presupuestaria, y de deuda pública y de la regla de gasto del ejercicio 2014](#) (available in Spanish)

<sup>11</sup> A change has been made in the system to set the debt targets as of 2016. Under the system that existed prior to 2016 in addition to the exceptions contemplated for 2016, other debt operations were allowed for which there was no list of which ones they were and that were deemed to be exceptions as decided by MINHAP.

- Reduction due to the debt in excess of the target set for 2015, if the autonomous region fails to comply with that debt target.
- b) Possible exceptions that would allow the target to be amended:
- Increase to finance deficit from previous years through additional financing mechanisms in 2016.
  - Increased debt due to reclassifications of accounting units made in 2016.

**Despite the improvements made by MINHAP to the system, it is a system of setting targets that continues to make exceptions to the initial target and that distorts the way the debt target is set and can be tracked.** MINHAP has made improvements to the system whereby the debt targets for 2016 are set with a limit established on the exceptions that can enlarge the initial target. This modification follows the recommendation made by AIReF. Nevertheless the fact that there are still exceptions and no information about the total figure those exceptions amount to prevents both the budgets of the ARs from being aligned with their debt targets and any verification of compliance with them. This highlights the shortcomings of the system. The fact that the Autonomous Regions themselves when drawing up the main lines of their budgets do not have any visibility on the amounts that MINHAP is going to assign them in 2016 to finance the deficit from previous years through additional financing mechanisms (an amount that accounts for more than half of the total increase in the debt of the ARs), prevents them from including sufficient and adequate information into their budget main lines that would enable verification of compliance with the debt targets, as required by article 6 of the LOEPSF. For the same reason, this system prevents AIReF from assessing at this time compliance with the debt target as is its statutory duty under article 17 of the LOEPSF and the Organic Law 6/2013 establishing AIReF. Moreover, it does not allow the Autonomous Regions to adequately plan their debt for 2016, as they do not know the amount of debt they can take on.

**No information is available for AIReF to be able to determine compliance with the debt target in 2016.** AIReF would need to check that the debt increases the ARs are forecasting for this year are the permitted levels in order to evaluate compliance with the debt target in 2016. At the time of publication of this report, however, no information exists on two of the debt assumptions mentioned above that form part of the calculation of the debt target in 2016:

- On the one hand there is no information to assess compliance with the debt target in 2015 and therefore whether the region will have to offset the excess debt in 2016 if the target in 2015 is not met. This is the case

because in the system used to set the 2015 targets, “other operations” to increase debt are allowed, in addition to the exceptions already taken into account in 2016, if they are deemed to be exceptions by MINHAP. However these operations are not known in advance because they have been neither quantified nor made public<sup>12</sup>. When added together these exceptional operations in 2013 and 2014 totalled €2 billion.

- On the other hand, nor is there any information available on the possible exceptions that would allow the 2016 to be enlarged at year-end. The amount to finance deficit from previous years that the Autonomous Regions are going to receive through the 2016 Autonomous Region Financing Fund (*Fondo de Financiación de CCAA, FFCCAA*) is unknown. Thirteen autonomous regions have applied to participate in the fund (all the regions except for Asturias, Castilla y León and Basque Country)<sup>13</sup>. The amount earmarked to finance deficit from previous years is very relevant because in 2014 it accounted for 45% of the total increase in debt and in 2015 it will be more than 50%, in line with the amounts assigned to the Autonomous Regions in 2015<sup>14</sup>.

**The debt target does not contribute to the long-term sustainability of the EDP debt** <sup>15</sup>. Compliance with the debt target by the ARs, in the way it is established, does not measure the effort made by the region to control its debt level nor if it is contributing to the long-term sustainability of the EDP debt. AIReF has highlighted the fact that compliance with debt targets had not been linked to the increase in debt in the region since the debt targets were first set in 2013 nor with the level of its current debt and the gap to the reference value of 13% of regional debt in 2020. Despite the growth in regional debt in the last two years, the debt target has been missed in only a minority of cases (in 2013 and 2014 only six Autonomous Regions<sup>16</sup> failed to comply once, except Aragon which failed to comply both years). As Graph IX shows, it is not always the most indebted Autonomous Regions and those that keep increasing their debt level that fail to meet their target.

<sup>12</sup> This information has not been supplied by MINHAP when requested by AIReF.

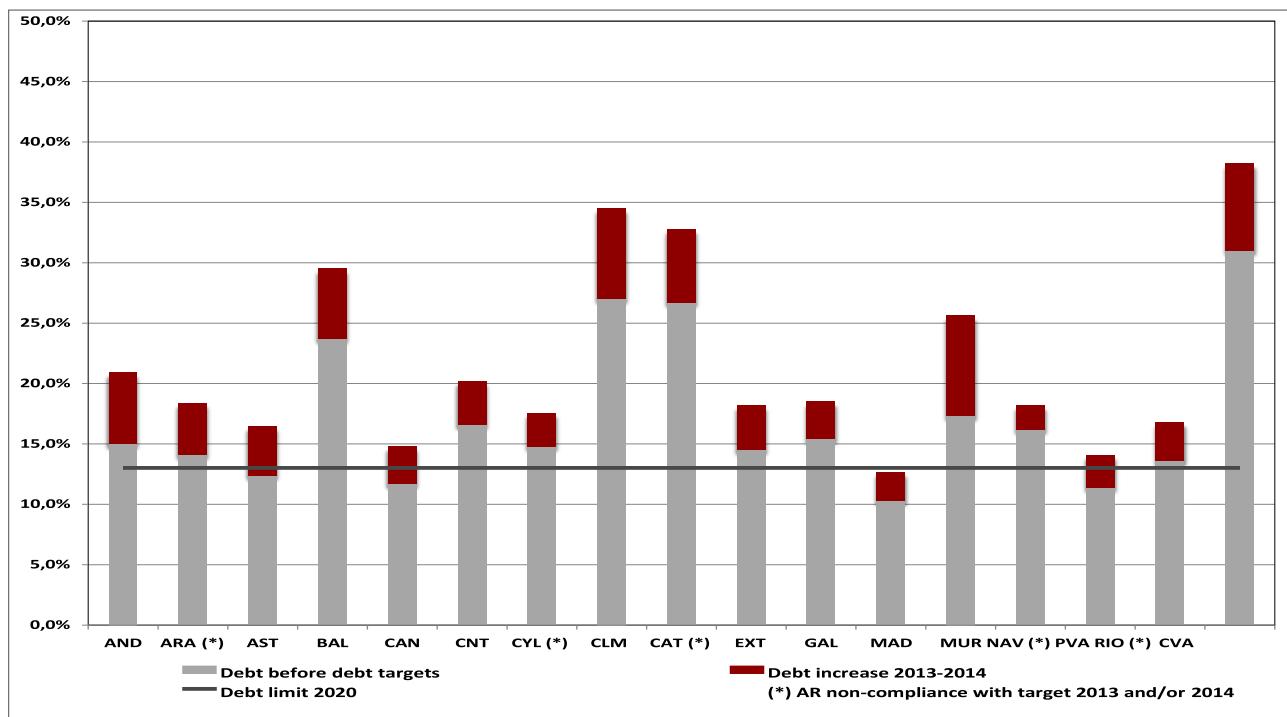
<sup>13</sup> No information has been received from Navarra.

<sup>14</sup> Data as of 20th November 2015. Includes amounts earmarked by the 2015 FFCCAA fund and the 2014 FLA regional liquidity fund 2014.

<sup>15</sup> The debt according to the Excessive Deficit Protocol (EDP) methodology does not cover the entire debt of the autonomous region, as it does not include commercial debt and other accounts payable.

<sup>16</sup> Aragon, Castilla-La Mancha, Castilla y León, Catalonia, La Rioja and Navarra.

GRAPH IX  
INCREASE IN DEBT IN THE AUTONOMOUS REGIONS SINCE 2013 (%GDP)  
IN RELATION TO COMPLIANCE WITH THE TARGET



Source: INE, MINHAP and AIReF estimates.

Note: The graph shows the outstanding debt of each region at 1st January 2013 as a % of GDP; as well as how much it increased in 2013 and 2014, the years for which there were debt targets. The ARs that did not meet the target in any one of those years are marked with an asterisk and the gap between 2014 debt levels and the debt cap in 2020 (13% GDP) is indicated.

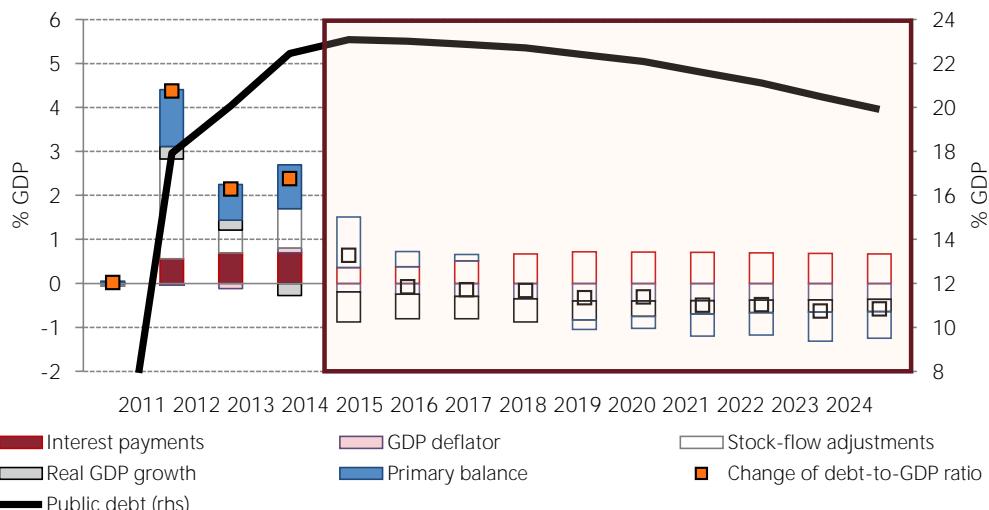
## B. Debt sustainability

**A valuation of the debt in the Autonomous Regions must focus on analysing the sustainability of their debt in the medium to long term.** AIReF's stated view is that the current system of setting debt targets is ineffective in bringing about a reduction in the debt levels of the ARs and so it believes that any study of the debt at a regional level should look at long-term sustainability.

**When the reference period studied is lengthened AIReF observes that the debt in the Autonomous Regions subsector follows a declining trend from 2016 onwards in the central scenario although this is not sufficient for it to reach the 13% debt-to-GDP ratio targeted in 2020.** Following the analysis frame put forward in Cuerpo (2014), the debt accumulation equation is used to make projections up to 2045. Graph X shows the results of this exercise. In the central scenario the AR subsector would see a smooth fall in the debt-to-GDP ratio from 2016 onwards following a period in which it rose significantly. As far as the composition of the trend is concerned, a substantial change in the factors explaining the development of the debt is projected. Unlike recent years, the assumption is for a continued and sustained improvement in primary balances that would start to make a negative contribution to the debt as of 2019. Moreover, from 2017 onwards the effect of the growth in the nominal GDP approximately offsets the interest burden. However, in the absence of greater fiscal retrenchment or any other correction factor to reduce the size of the debt (e.g. via the denominator for greater nominal growth), compliance with the 13% target can be considered unlikely before 2035.

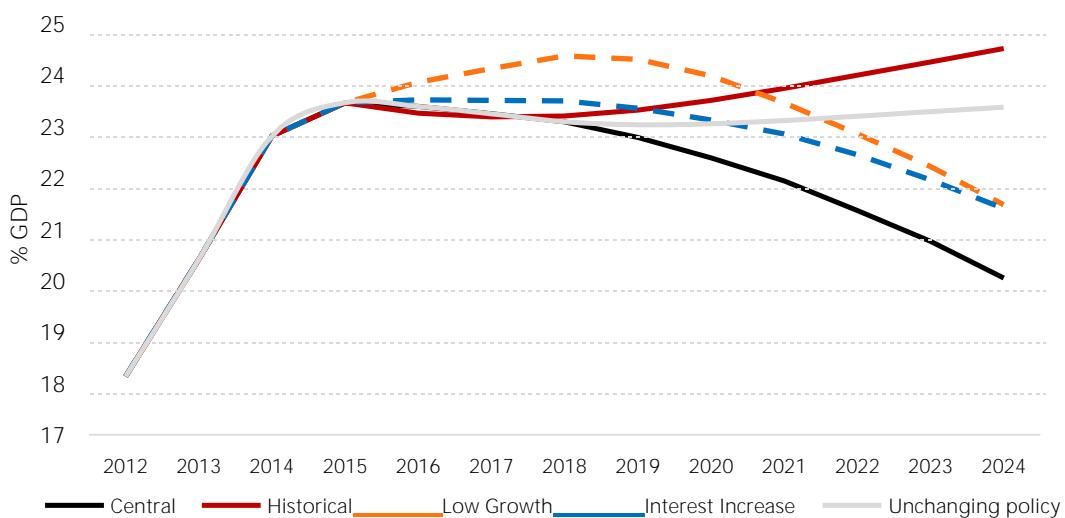
**Alternative scenarios of fiscal easing can lead to unsustainable debt trajectories.** Given that the assumptions on the development of underlying factors (growth, employment, direction of fiscal policy, etc.) are subject to much uncertainty in the long term, a sensitivity exercise was carried out (see Annex IV and notes to Graph 3.B in the individual reports on the Autonomous Regions for more details on the distortions considered). The impact of different assumptions can be observed in Graph XI. The key conclusion reached from it is that scenarios where the orientation of fiscal policy is slightly less restrictive and more in line with recent times, non-sustainable debt trajectories are implied. Secondly, it can also be inferred from the graph that more unfavourable macroeconomic conditions than the ones used in the central scenario may significantly affect the debt dynamics in the medium term, delaying by several years the turning point for the path and the corresponding achievement of the debt ceiling.

GRAPH X  
BASELINE SCENARIO FOR THE DEBT/GDP RATIO  
AND CONTRIBUTION OF FACTORS (% GDP)



Source: AIReF

GRAPH XI  
BASELINE SCENARIO FOR THE DEBT/GDP TRAJECTORY  
TOGETHER WITH ALTERNATIVE SCENARIOS SUBJECT TO STRESS EXERCISES (% GDP)

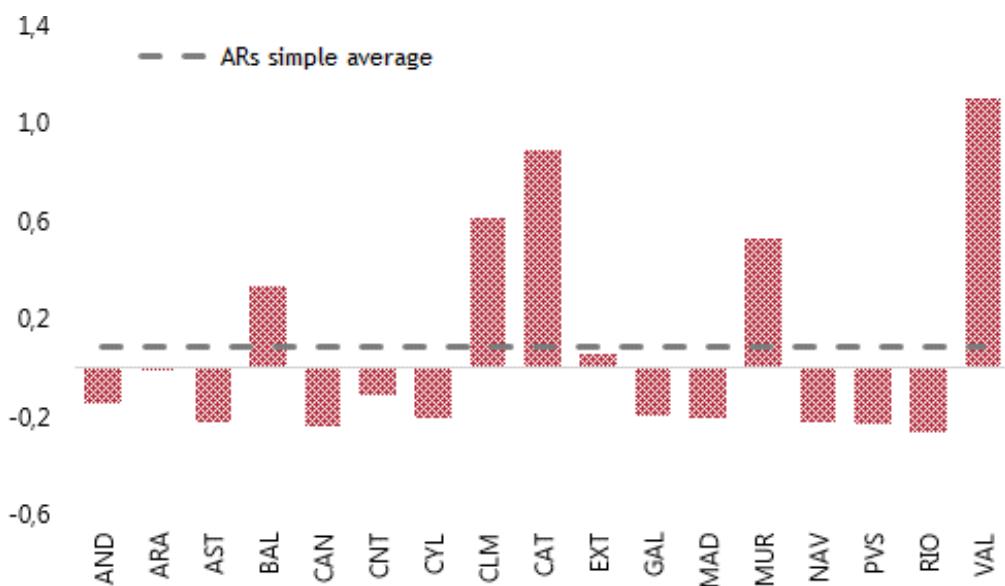


Source: AIReF

Note: the scenarios are defined in detail in Graph 3B in the individual reports.

**When looking at the different regions individually it can be seen that they have a very heterogeneous medium-term fiscal stress position from debt sustainability.** To manage to stabilise their debt in the medium to long term, some regions have to make a very ambitious fiscal effort whereas others seem to be in a relatively comfortable situation. The indicator in Graph XII shows the average fiscal effort (as a % of GDP) necessary to stabilise debt at around the 13% limit in 2030, the year in which the forecast is for the ARs to reach their overall target of 60% of GDP. In particular, the graph shows that Valencia, Catalonia, Castilla-La Mancha, Murcia, and to a lesser extent the Balearic Isles, are in a vulnerable position as they need to make a much greater fiscal consolidation than the average for the subsector (around 0.2% of GDP)<sup>17</sup>.

GRAPH XII  
MEDIUM-TERM FISCAL STRESS INDICATOR



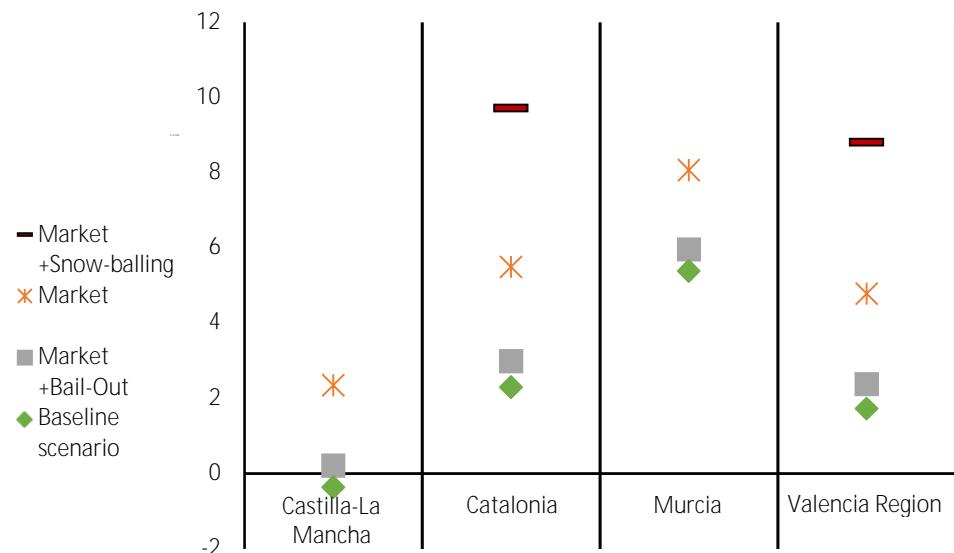
Source: AIReF.

Nota: The indicator quantifies the average adjustment in the accumulated primary structural balance between 2015 and 2030 compared to the baseline scenario, that the Autonomous Regions have to make to reach the debt target in 2030 (13% of regional GDP). The fiscal effort for 2015-2016 has been estimated by AIReF and for 2017-2018 is consistent with the Stability Programme Update 2015-2018, which entails reaching the budget stability target in the long-term (i.e. a balanced total fiscal balance).

<sup>17</sup> The sustainability risk associated with each one of these ARs is described in the individual reports in line with the following criteria, initial level of debt, the debt dynamics, and possible short-term liquidity in absence of the State financing mechanisms, and its credit rating.

**In this context, access to additional financing mechanisms put in place by the State offering advantageous terms for the Autonomous Regions become particularly relevant.** In this line, in Annex IV a stress analysis is made for the Autonomous Regions identified as vulnerable in the section above and under the basic assumption that the State financing will come to an end. Given the current rating of these regions, even if they return to the market to obtain funding it would be in high-risk premium conditions typical of moderate risk investments or even speculative investments (i.e. if all possibility of bailout by the State were credibly removed). In these conditions, the debt of Valencia, Catalonia and Murcia might begin to have non-sustainable dynamics. Additionally, Annex IV identifies two regions—Catalonia and Valencia—subject to potential liquidity risks in the short-term, in the absence of the State financing mechanisms. If they run into difficulties to pay their debt burden it might trigger a reaction in the markets in which spreads would spiral, fed further in turn by their own impact on fiscal sustainability. This scenario becomes especially relevant in the case of Catalonia because of the uncertainty surrounding its political context, which has meant their credit rating has been downgraded (Catalonia has become the only region rated at speculative grade by the three major rating agencies). Graph XIII displays the result in terms of accumulation of debt between 2015 and 2024 as a consequence of the scenarios commented above and defined in detail in Annex IV.

GRAPH XIII  
GAP BETWEEN THE DEBT/GDP FIGURE IN 2024 FOR SIMULATED SCENARIOS AND THE BASELINE FIGURE (2015), % GDP



Source: AIReF.

Note: For further information on the scenarios see Annex IV on debt sustainability.

## Recommendations

After analysing the budget lines and draft budgets prepared by the Autonomous Regions for 2016, AIReF makes a number of recommendations aimed at “ensuring effective compliance by the Public Administrations with the budgetary principle set forth in article 135 of the Spanish Constitution”, as it is mandated to do in the law establishing the independent fiscal authority in Spain.

Within this framework of “ensuring compliance”, the first action taken by AIReF when assessing the budgetary principle in the case of the autonomous regions is to make an evaluation of their budgets right from the initial drafting of their main lines. The aim of this statutory early assessment by AIReF is definitely to detect as soon as possible any risks so decisions can quickly be taken to rectify the situation.

AIReF believes that it is essential to work on two fronts and so makes recommendations covering both. One is the promotion of the preventive arm of the LOEPSF by enhancing the possibility of early action by both the autonomous region and by MINHAP and the other is the improvement of the institutional framework and implementation of the fiscal rules. These recommendations, which are for immediate implementation when it comes to bringing the budget lines and draft budgets in 2016 in line with the stability and debt targets and the expenditure rule, are made in a broader context seeking consistency in the medium-term and long-term fiscal framework.

In this report on the Autonomous Region subsector only recommendations addressed to MINHAP are included given that they affect all the ARs and it is up to that Ministry to implement them. The recommendations on concrete action to be taken by a particular region are included in the report published on that region.

### **Recommendations focusing on preventive action under the LOEPSF**

AIReF’s view is that early action is a commitment on all the Autonomous Regions regardless of whether or not they have any risk of deviation from their targets when they are undertaking thorough monitoring of the implementation of their budgets by reinforcing the role of the regional general audit services in the early detection of risks for compliance with fiscal rules. Additionally, in the case of some ARs with a high risk of deviation from the targets, AIReF is of the view that MINHAP should take action. Consequently, AIReF once again makes use of the procedure provided for in the law establishing the independent

authority for fiscal responsibility and its regulations and requests, as it did in December 2014, activation by MINHAP of the preventive non-automatic measures in article 19 of the Organic Law 2/2012 of 27th April on Budgetary Stability and Financial Sustainability for the cases of Extremadura, Catalonia, Murcia and Valencia, for which AIReF identifies a clear risk of non-compliance with the stability target for 2016<sup>18</sup>. In the framework of warnings given by AIReF of the risk of non-compliance and within the one-month deadline stipulated in article 19 of the LOEPSF for the adoption of measures, **AIReF makes the following recommendation:**

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***MINHAP should ask Extremadura, Catalonia, Murcia and Valencia Regions for a multiyear planning document whose level of detail, binding nature and duration should take into account, with due consideration for the specificities of each autonomous region, the following aspects:***

- ***the particular situation of each one of these regions as regards their relative position compared to the whole subsector for revenue, expenditure and exercising of normative capacity;***
- ***the financial amount of the adjustment to be made;***
- ***and the sustainability of their debt path and the contribution of the region to making it sustainable from the standpoint of the two factors that are most directly dependent on their own action: their commitment to the consolidation of public accounts and the maintenance of a stable institutional framework.***

***This medium-term planning exercise, agreed between the Region and MINHAP, must take the concrete form of annual programmes forming part of their budgets and the EFPs that are put forward and approved in the Fiscal and Financial Policy Council.***

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<sup>18</sup> Extremadura, Murcia and Valencia Autonomous Regions still have to submit and approve an EFP plan because of non-compliance with the stability target and —except for Murcia— the expenditure rule in 2014. Given the proximity of 2015 year-end results, these documents are no longer relevant for the correction of the deviation in 2015. The scenario and the measures in 2016 are now superseded by the draft budgets that are in their passage through the regional parliaments and will be the road map of the next financial year.

## Recommendations focusing on improving the institutional framework

AIReF sees several aspects with room for improvement that affect the framework for establishing, implementing and evaluating the fiscal rules. This evaluation requires clear and publicly known methodological criteria, in which the National Accounts Technical Committee has a prime role to play in their definition as regulated in the organic law establishing AIReF. But even though two years have elapsed since it was set up, this committee still does not have any rules of procedure on how it is to function. That makes it difficult for AIReF to have a dialogue of any kind with the committee to try to ensure it complies with its legal obligation of sending AIReF its reports.

With a view to the improvement of the institutional framework, ***AIReF makes the following recommendations:***

✓ **Setting debt targets:**

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***MINHAP should design a system to set debt targets that complies with the function of oversight of the EDP debt and in which it should incorporate a revision of the debt reduction path so that the path is a credible, demanding reference that allows the Public Administrations to guarantee financial sustainability.***

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✓ **Application of the expenditure rule:**

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***MINHAP should draft implementing rules for the content of article 12 of the LOEPSF with the aim of having comprehensive regulation of the expenditure rule including aspects relating to the calculation, application and procedures for exchange of information between the Public Administrations. In this context it would be very useful to set up working groups within the Fiscal and Financial Policy Council and the National Local Administration Commission in which in-depth examination and discussion of this rule can take place.***

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✓ Evaluation of the fiscal rules in a multiyear framework:

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*The regional governments should consolidate the budget as a document in which specific annual form is given to the multiyear planning of the region in the medium term. This multiyear planning is especially important at a time when several governments have to define their fiscal action plan for the next four years.*

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*MINHAP should promote this multiyear programming in the field of budgetary coordination and the activation and implementation of the corrective measures provided for in the LOEPSF. In particular, the preparation discussion and approval of the EFPs should be placed within the context of a multiyear outlook without prejudice to the more detailed breakdown that can be made for the two years covered in the plan.*

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✓ Evaluation of the fiscal rules in a framework of methodological transparency:

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*The National Accounts Technical Committee —created by the first additional provision of Organic Law 6/2013— should approve and publish in the BOE its internal rules of procedure and so comply with the provisions of section 2 of that provision.*

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*The National Accounts Technical Committee should provide AIReF with the reports issued as part of the discharging of its duties and so comply with the provisions of section 4 in the same first additional provision cited above.*

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## ANNEX I

Housing market and  
projections for tax revenue  
collection from the Tax on  
Asset Transfers and  
Documented Legal Acts for  
the different Autonomous  
Regions

## HOUSING MARKET AND PROJECTIONS FOR REVENUE COLLECTION FROM THE TAX ON ASSET TRANSFERS AND DOCUMENTED LEGAL ACTS FOR THE DIFFERENT AUTONOMOUS REGIONS

The revenue obtained from the Tax on Asset Transfers and Documented Legal Acts (*Impuesto de Transmisiones Patrimoniales y Actos Jurídicos Documentados*, ITPyAJD) is a key element in the budgets of the Autonomous Regions (ARs) in Spain. Once the funds they obtain from the financing system in the form of interim payments before a final settlement (representing around 70% of regional non-financial revenue) are deducted, since 2009 on average the ITPyAJD tax has been accounting for around 16% of all the other revenue in the regions. In a couple of them this figure has even been as high as 40%. Modelling the revenue collected from this tax is therefore an essential part of the process of building revenue projections for the Autonomous Regions for the period 2015-2018.

In theory, the ITPyAJD is levied on many different asset transfers that are subject to payment of the tax and that are listed in the Legislative R.D. 1/1993 approving the recast text of the ITPyAJD.<sup>19</sup> In practice, however, the bulk of revenue collected for this ITPyAJD comes from second-hand housing financial transactions. That is why when the development of revenue from ITPyAJD is modelled it is linked to the behaviour of the housing market and more specifically to the prices of the free market property transactions.<sup>20</sup>

### Modelling

The methodology used to project the data involves an estimation of error correction models that take into account the existence of a stable relationship in the long term between the series modelled (co-integration relationship) and the short-term dynamic or correction of deviations from the long-term path towards a balanced budget. Specifically, the model is estimated as follows:

$$\begin{aligned} \Delta \log(recaudación_t) \\ = c_{cp} + \beta_1 * \Delta \log(transacciones_t) + \beta_2 * \Delta \log(precios_t) + \end{aligned}$$

<sup>19</sup> [Legislative Royal Decree 1/1993, of 24th September 1993](#) (original Spanish version)

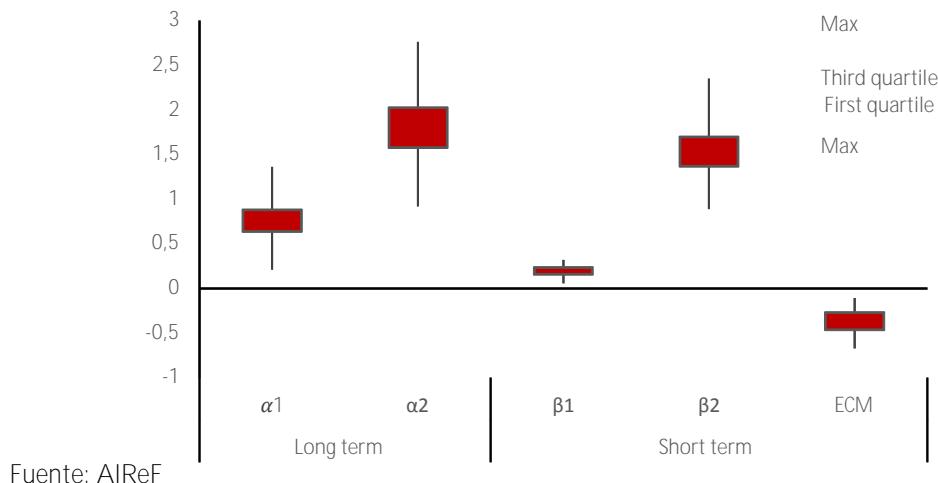
<sup>20</sup> Both series come from the Ministry of Public Works in Spain. The sampling period includes 2002q1:2015q2 for prices and 2004q1-2015q2 for transactions. The revenue collection series are likewise available for the period 2002q1-2015q2. The series have been adjusted for seasonality and in the case of revenue collection from the ITPyAJD tax, as there are no quarterly frequency data prior to 2010 statistical procedures are used to make a temporal disaggregation of the annual series.

$$\beta_3 * \text{dummy} + ecm * [\log(\text{recaudación}_{t-1}) - \alpha_1 * \log(\text{transacciones}_{t-1}) + \alpha_2 * \Delta \log(\text{precios}_{t-1}) - c_{lp}]$$

Where  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  y  $ecm$  represent the short-term elasticities for the variation in transactions and prices compared to a dummy that tries to cover the existence of economic policy measures that have varied the rates in recent years and compared to the long-term relationship (speed of adjustment or error correction), of transactions and prices.<sup>21</sup> The parameters  $\alpha_1$  y  $\alpha_2$  represent the long-term elasticity response to transactions and prices respectively.

Figure I provides a summary of the results of the estimation of the models for the Autonomous Regions (all of them except for the Basque Country given that the powers over tax revenue collection in that region from the taxes under agreement with the State correspond to the *Diputaciones Forales* that are integrated in the local subsector). The figure shows a fairly robust estimate of the models with short and long term elasticity with regard to the transactions of around 0.2 y 0.7 and of 1.6 and 1.8 with respect to prices. The quarterly adjustment speed lies in the range of around 40%. In other words, it would take six quarters to close the gap compared to the long-term reference value.<sup>22</sup>

FIGURE 1  
Estimated short and long-term coefficients: minimum, maximum and first and third quartile



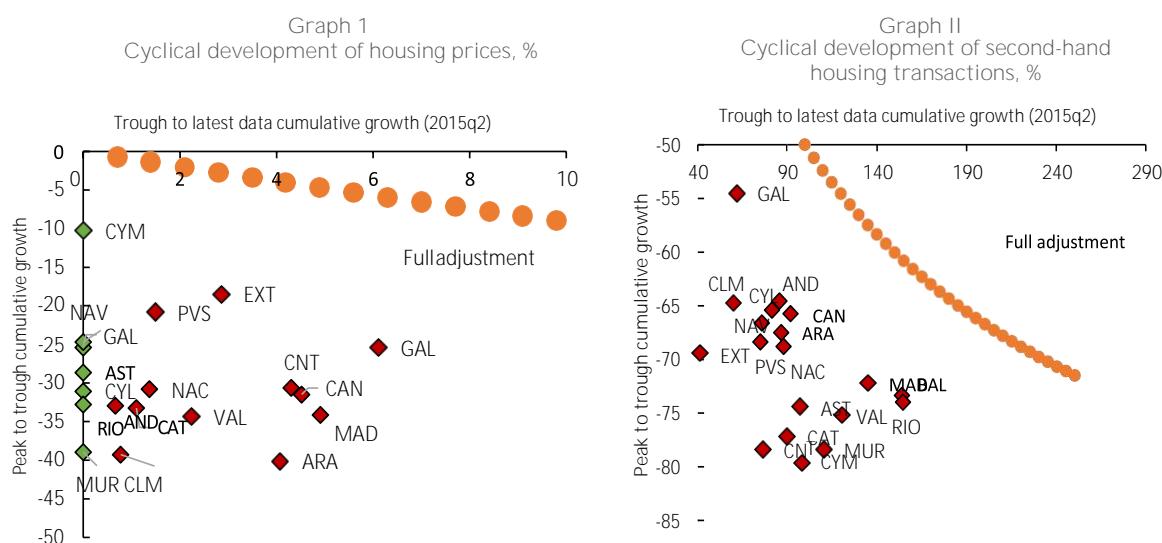
<sup>21</sup> The dummy or corrector variable for the impact of the measures that change tax rates (or broaden tax bases) is significant in the case of Andalusia, Balearic Isles, Cantabria, Castilla y León, Castilla-la Mancha, Catalonia, Valencia, Extremadura, Galicia and Murcia Region. For Canary Isles and Castilla y León, however, a differences model has been estimated as the long-term relationship in the short-term equation does not come out as significant (no evidence of co-integration).

<sup>22</sup> The details for the specific model of each one of the Autonomous Regions are available on request.

## Development of the housing market

When working out the projections for revenue collection from the tax on asset transfers and documented legal acts, given the detailed models in the section above assumptions about the exogenous variables —transactions and prices— are required.

As can be seen in Graphs I and II, the housing market cycle has been very different in the different Autonomous Regions on the basis of those two variables. Some of the regions are still in the price correction phase whereas the majority of them have been starting to grow since late 2014 or early 2015. With regard to transactions, the cycle is at a stage much further ahead. After suffering heavy setback since 2006 and 2008 (with the fall being as much as 80% for one of the ARs), the recovery started back in 2008 and some regions like Madrid, Balearic Isles or La Rioja have recovered a large part of the ground lost (they are closest to the complete adjustment line).

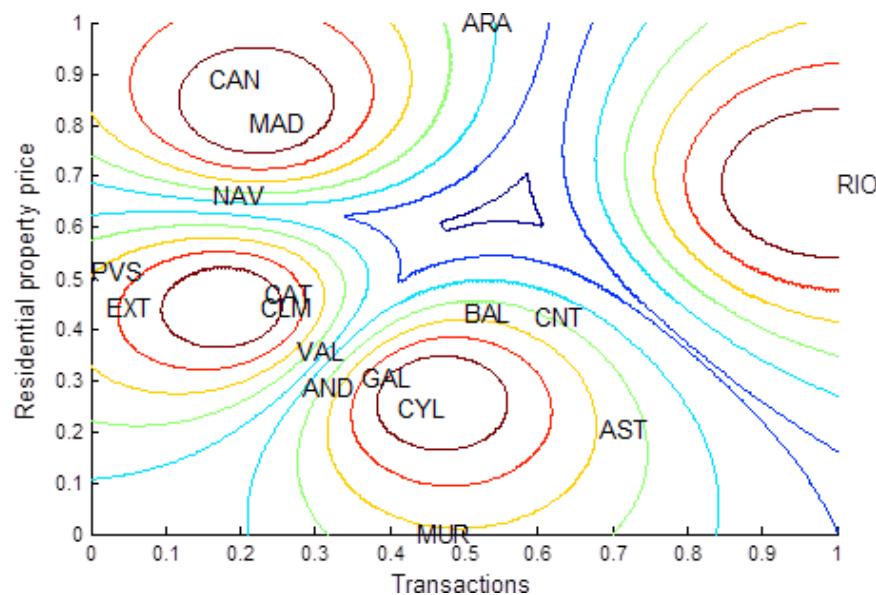


Source: Ministerio de Fomento (Ministry of Public Works in Spain)

Note: For the construction of the graphs, first the most recent local peaks and troughs are identified (with a moving window of 12 periods) of the variables considered, once they have been seasonally-adjusted. Secondly, the cumulative growth from the peak to the trough and from the trough to the last observed period is calculated (2015q2). They are represented on the vertical and horizontal axes respectively. Lastly, the limit that would take it to a complete adjustment of the cycle is represented (i.e. return to the levels of the last peak) through circular markers. The ARs represented in green are the regions in which the bearish pricing cycle has still not come to an end.

To be able to project the variables under consideration the different ARs are grouped together on the basis of their recent behaviour to make a clustering analysis. This type of analysis aims to detect underlying similarities in the data and classify the ARs in line with them.<sup>23</sup> The analysis uses interquarterly rates for transactions and prices.

Graph III represents the groups as finally estimated on the basis of which projections are made of the exogenous variables.<sup>24</sup> Indeed it is assumed that all the ARs belonging to a group develop in 2015 at the average rate of their own cluster. From then on, the assumption is for a smoother dynamic of the growth rates to 2018, the year in which the assumption is that they converge to the average rate of the total of the ARs.



<sup>23</sup> The clusters represent groups of Autonomous Regions where the members of the group are more similar amongst themselves than amongst the non-members. The similarity is analysed mathematically as the distance between vectors of multidimensional data.

<sup>24</sup> Because the number of subgroups is not known a priori, validation indices are used to determine that the optimal number of clusters is 4. Once the number of clusters has been determined, a C-means algorithm is applied that results in an optimal position for each AR along the initial dimensions with regard to the centre of the clusters, which are in turn defined as the weighted average of the regions that belong to each one.



## ANNEX II

Indicators of the relative  
position of the Autonomous  
Regions compared to the  
subsector for revenue and  
expenditure

## Indicators of the relative position of the Autonomous Regions compared to the subsector for revenue and expenditure

In the *Report establishing the individual budget stability and government debt targets of the Autonomous Regions* published by AIReF on 27th July<sup>25</sup> two studies were carried out to approximate the quantification of the fiscal pressure exercised by the Autonomous Regions (ARs) in the common regime (the ARs with special taxation powers were not included) as well as the per capita like-for-like primary expenditure of each Region. The revenue sufficiency of the Autonomous Regions was analysed on the assumption that their like-for-like expenditure was the average of the Autonomous Regions taken as a whole.

AIReF has continued to analyse the performance of the ARs in these areas in depth, enhancing the analyses conducted in July.

## Normative capacity exercised by the autonomous regions in the common regime in taxes

An index of regional fiscal pressure was made for regions in the common regime in the study carried out in July. The index was the result of the tax revenue collected by each region in national accounting terms (market production, taxes and duties on imports and output, excluding VAT, their taxes on production, other current taxes and taxes on capital and the valuation of normative competences used by the ARs in personal income tax) divided by GDP.

This index attempted to approximate the normative fiscal capacity developed by the ARs and the capacity still available to be used to help in the process of fiscal consolidation. Thus, Autonomous Regions with an above average index might indicate that the use of their normative power to obtain greater tax revenues might also have been above average.

AIReF has tried to make an estimate of the normative capacity exercised by the ARs to raise more revenue from taxes or to lower them in line with the following sources:

- Own taxes established by the Autonomous Regions. Revenue collection data published on the MINHAP website<sup>26</sup>. In the case of the Canary Isles, the taxes the region has powers over under its economic and fiscal regime

<sup>25</sup> [Report on distribution of targets Autonomous Regions](#)

<sup>26</sup> [Libro electrónico de tributación autonómica. Medidas 2015. Tributos propios.](#)  
(taxation revenue data available on the MINHAP website in Spanish)

have not been included in order to make the powers like-for-like with the other regions.

- Personal Income Tax (IRPF). Data published on the appraisal of the normative competences of the ARs in this tax, in the MINHAP publication *Liquidación de los recursos del sistema de financiación de las comunidades autónomas de régimen común y ciudades con estatuto de autonomía y de las participaciones en los fondos de convergencia autonómica, regulados en la Ley 22/2009, de 18 de diciembre, correspondientes a los ejercicios 2012 y 2013*<sup>27</sup> (available in Spanish) which contains data on the settlement of the resources of the financing system for autonomous regions under the common regime and cities with a statute of autonomy and shares in regional convergence funds regulated under Law 22/2009, 18th December, for 2012 and 2013.
- Fiscal benefits established by the ARs in the ceded taxes, that entail using tax competences to bring down revenue, according to the quantification that each one made and incorporated into the 2014 and 2015 fiscal benefits budget data published on the website of each Autonomous Region. For 2015 access to this information is through the MINHAP<sup>28</sup> website.
- Tax on certain means of transport (IDMT, as it is known in Spanish) and the regional Hydrocarbons Tax rate. Data published by MINHAP in the monthly budgetary implementation information.<sup>29</sup> and in the *Liquidación de los recursos del sistema de financiación de las comunidades autónomas de régimen común y ciudades con estatuto de autonomía y de las participaciones en los fondos de convergencia autonómica, regulados en la Ley 22/2009, de 18 de diciembre, correspondientes al ejercicio 2013*<sup>30</sup> (data on the settlement of the resources of the financing system for autonomous regions under the common regime and cities with a statute of autonomy and shares in regional convergence funds regulated under Law 22/2009, 18th December, for 2013).
- Tax on Asset Transfers and Documented Legal Acts (*Impuesto sobre Transmisiones Patrimoniales y Actos Jurídicos Documentados* ITPAJD). The starting point for the calculation is the revenues collected from this tax in 2014 entered in the region's general accounts and the tax rates approved

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<sup>27</sup> [Liquidación de los recursos del sistema de financiación de las CCAA de régimen común y ciudades con estatuto de autonomía y de las participaciones en los fondos de convergencia autonómica, regulados en la Ley 22/2009](#) (available in Spanish)

<sup>28</sup> [Autonomous Regions fiscal benefits budgets](#) (available in Spanish)

<sup>29</sup> [Ejecución del presupuesto. Administración General del Estado 2014](#)

<sup>30</sup> [Liquidación de los recursos del sistema de financiación de las CCAA de régimen común y ciudades con estatuto de autonomía y de las participaciones en los fondos de convergencia autonómica, regulados en la Ley 22/2009](#)

by each region in effect in 2015<sup>31</sup>. AIReF has used this figure to estimate the revenues that would have been collected if the tax rate had been the same as the general tax rate approved by state legislation.

The table below shows the extent to which each of the ARs under the common regime in 2015 exercised its powers to set rates for the Tax on Asset Transfers (ITP, as it is known in Spanish) and Documented Legal Acts (AJD), Special Hydrocarbons Tax (IH) and Special Tax on Certain Means of Transport (IDMT). It also shows the revenues collected from the taxes established by the ARs themselves, as a percentage of regional GDP.

The use of these powers for each tax has been graduated on a scale of colours from white to blue, so the regions that have set the highest rates or established more of their own taxes show a predominance of white and those that have used their powers to a lesser extent tend to show more blue.

AUTONOMOUS REGION	ITP	AJD	IH	IDMT	Own taxes
ANDALUSIA	8-10%	1,50%	Average	Average	Low
ARAGÓN	7,00%	1,00%	Does not use	Does not use	Low
ASTURIAS	8-10%	1,20%	Average	Low	High
BALEARIC ISLES	8-10%	1,20%	Maximum	Low	Average
CANARY ISLES	6,50%	0,75%	Not applicable	Does not use	Low
CANTABRIA	8-10 %	1,50%	does not use	Average	Low
CASTILLA Y LEÓN	8-10 %	1,50%	Low	Does not use	Low
CASTILLA - LA MANCHA	8,00%	1,25%	High	Does not use	Low
CATALONIA	10,00%	1,50%	High	Low	Average
EXTREMADURA	8-11%	1,20%	Average	High	High
GALICIA	10,00%	1,50%	Average	Does not use	Low
MADRID	6,00%	0,75%	Liow	Does not use	Low
MURCIA	8,00%	1,50%	High	Low	Low
LA RIOJA	7,00%	1,00%	does not use	Does not use	Low
VALENCIA	10,00%	1,50%	Average	Does not use	Average

<sup>31</sup> [Libro electrónico de tributación autonómica. Medidas 2015. Resumen de medidas vigentes en tributos cedidos](#) (electronic ledger of regional taxation. 2015 measures. Summary of measures in force for ceded taxes, available in Spanish)

Scores have been graduated in accordance with following criteria:

Tax on Asset Transfer and Documented Legal Acts (ITP & AJD )	Tax rates established by the Region
Tax on Hydrocarbons (IH)	Maximum: levied on all transactions at the maximum established rate
	High: Levied on most transactions at maximum rates and on some at lower than maximum rates
	Average: Levied on most transactions at maximum rates but not levied on other transactions
	Low: Levied on some transactions at less than 35% of the AR's capacity and not levied on others
Tax on Certain Means of Transport (IDMT)	High: levied on all transactions at a rate of more than 50% of the AR's capacity
	Average: levied on most transactions at rates of over 50% of the AR's capacity
	Low: Levied on two or less categories of the tax
Own taxes	Measured as a % of GDP: High [0.76-0.45%], Average [0.44-0.18%] and Low [< 0.18%]

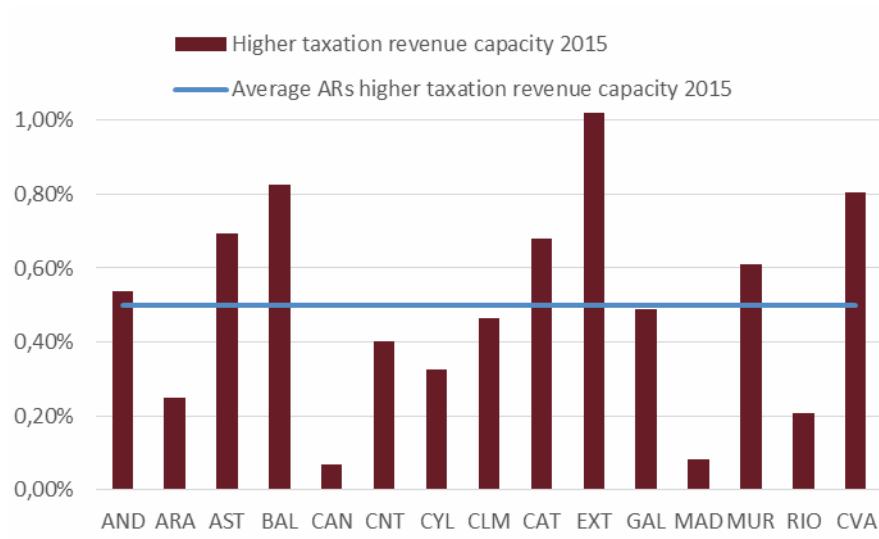
Extremadura and the Balearic Isles are the regions that have used their powers the most. The regions that have used this capacity the least are Madrid and the Canary Isles. In the case of the Canary Isles, only the taxes that they control under the same terms as the other ARs have been included. The taxes that are considered part of their Economic and Fiscal Regime (e.g. taxes on fuel and tobacco products) have not been included.

AIReF has estimated the use of these powers to increase tax rates in terms of tax revenue impact. This is shown in Graph 1 as a percentage of 2015 regional GDP. Each tax has been quantified from the latest available data.

The ARs have also used their fiscal powers to establish a range of tax breaks that have reduced the revenues collected from their ceded taxes.

Graph 2 shows the amount of the tax benefits established by the ARs for 2015 as a percentage of regional GDP, according to the published data and AIReF estimates:

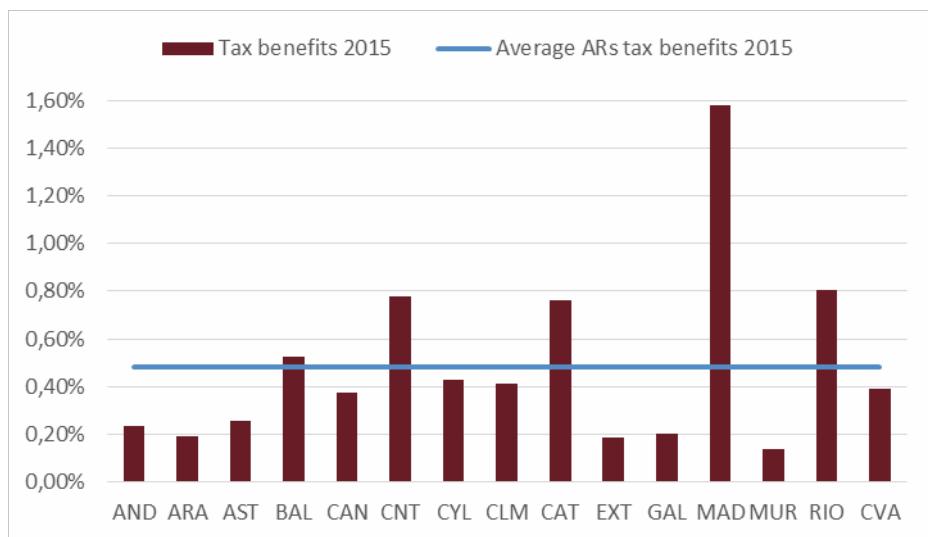
### GRAPH 1: INCREASED USE OF NORMATIVE POWERS (% GDP)



Source: INE, MINHAP, ARs and AIReF estimates.

N.B.: This indicator measures the positive impact of the normative tax measures approved by each region on revenue collection in 2015 estimated by AIReF as % of GDP.

### GRAPH 2: TAX BENEFITS (% GDP)

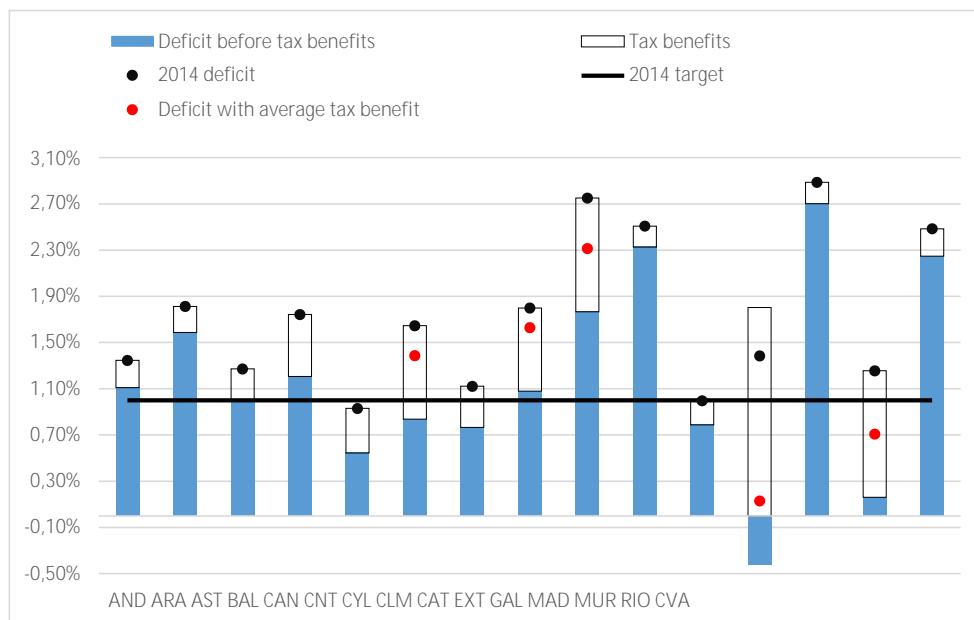


Source: INE, MINHAP, ARs and AIReF estimates.

N.B.: This indicator measures AIReF's 2015 estimate of the reduction in revenues collected from ceded taxes stemming from normative measures approved by each region as a % of GDP.

The 2014 data with the last year-end figures available have also been used to estimate the impact that tax benefits and the use of tax rate reduction powers would have had on the deficit for that year and on compliance with the 2014 stability target if the appraisal of their effects were in line with the forecasts made in the initial budget. This is shown in Graph 3. The graph also shows the deficit that the ARs that granted above-average tax benefits would have had if these tax benefits had been in line with the average for the AR subsector as a whole.

**GRAPH 3: IMPACT OF TAX BENEFITS ON THE 2014 DEFICIT (% GDP)**



Source: INE, MINHAP, ARs and AIR<sup>e</sup>F estimates.

N.B.: This indicator shows the impact that the tax benefits approved by each region has had on its funding needs in 2014. For the ARs with above-average approved tax benefit to GDP ratio, it also shows the impact they would have had if the tax benefits had been in line with the average for the AR subsector as a whole

## EXPENDITURE BEHAVIOUR OF THE AUTONOMOUS REGIONS

As in the *Report establishing the individual budget stability and government debt targets of the Autonomous Regions* (hereinafter, Targets report) the starting point are the 2012-2013 annual figures for non-financial transactions of the Regional Government subsector (S.1312) and breakdown by regions published by MINHAP in October as part of its national accounts series of publications. (*Operaciones no financieras del subsector Administración Regional (S.1312) y detalle por comunidades. Información anual 2012-2013*<sup>32</sup>). Unlike in the Targets report, 2014 has not been considered as no data has been published yet on the functional classification of expenditure in accordance with COFOG, which are required to complete the analysis conducted on expenditure on basic public services. The inclusion of the 2014 data in the study would not however, change the conclusions.

Interest payment figures published in the same series have been subtracted from non-financial uses to give primary non-financial uses. What has changed against the Targets report is that, given the weight of payments that some ARs make to the State as part of the funding system (shown as uses) and that these are not used for exercising any of the powers they have, system-related payments have been eliminated from these uses.

Lastly, the amount corresponding to expenditure competences shown in the Targets report has been standardised.

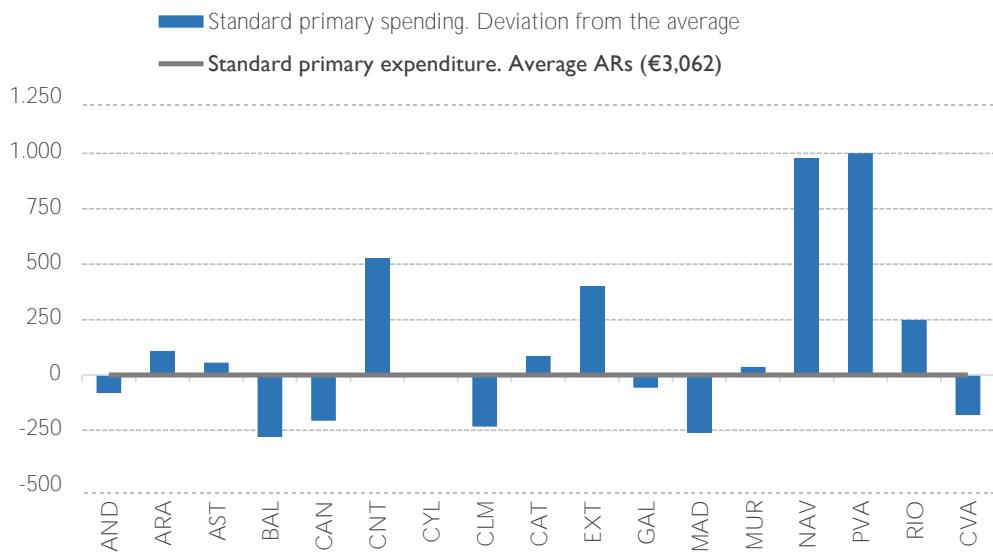
This has given a figure for like-for-like primary uses net of system funding payments for each Autonomous Region for 2012 and 2013.

Dividing the like-for-like primary expenditure of each AR by the adjusted population each year (data published in the Targets report) gives the adjusted per inhabitant like-for-like primary expenditure per year, the average of the two years for each AR and the average of the ARs as a whole. Graph 4 below shows average per capita like-for-like primary expenditure of the ARs as a whole, as a grey line on the horizontal axis (€3,062 per capita) and the deviation of the

<sup>32</sup> [Contabilidad nacional. Operaciones no financieras del subsector Administración Regional \(S.1312\) y detalle por comunidades. Información anual](#) (available in spanish)

like-for-like primary per capita expenditure of each region from the average of all of them, in bars.

**GRAPH 4: LIKE-FOR-LIKE PRIMARY EXPENDITURE, EXCLUDING USES FOR TRANSFERS TO THE STATE STEMMING FROM THE FINANCING SYSTEM.  
Deviation from the average (euros per capita; average 2012-2013)**



Source: MINHAP and AIReF estimates

N.B.: This indicator measures primary non-financial expenditure, net of funding system payments and adjusted per inhabitant, for 2012-2013, in terms of like-for-like expenditure competences

The analysis was completed with a calculation of the average expenditure in 2012 and 2013 (the only years for which information is available) on basic public services (functions 07 Health, 08 Education and 10 Social protection) according to the data published by the State Comptroller's Office in Spain (IGAE) in the annual information on the functional classification of Regional Government subsector expenditure (known as COFOG), available in Spanish<sup>33</sup>. These same average expenditure figures have also been obtained in per capita terms, by dividing them by the adjusted population. In the cases of the Balearic Isles and Canary Isles, apart from the expenditure on these functions that appears in the COFOG, the expenditure of transfers made to the *Consells* and *Cabildos*

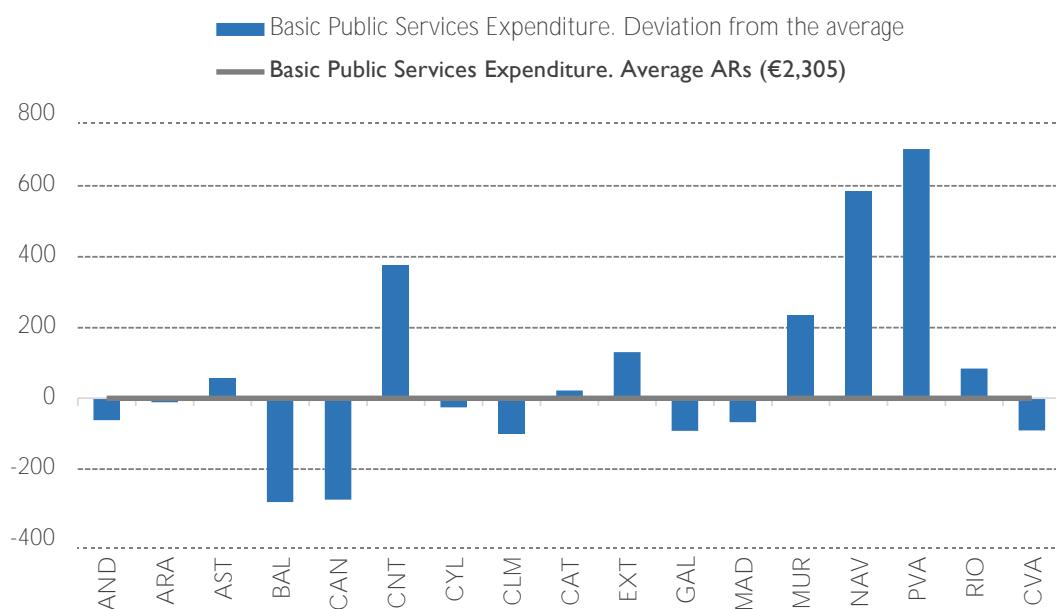
<sup>33</sup> [Contabilidad nacional. Clasificación funcional del gasto del subsector Administración Regional \(COFOG\). Información anual](#) (available in spanish)

To date this information has not been revised by IGAE in October, unlike the annual series of non-financial transactions of the regional government subsector

(Island Governments) to finance their devolved competences must be added, as these are not included in the basic public services functions in the COFOG.

Graph 5 shows the average per capita expenditure on basic public services for the entire AR subsector (€2,305) as a grey line on the horizontal axis, and the deviation in the per capita expenditure on basic public services of each region from the average for the subsector as a whole, in bars.

**GRAPH 5: LIKE-FOR-LIKE PRIMARY EXPENDITURE, BASIC PUBLIC SERVICES.  
Deviation from the average (euros per capita; average 2012-2013)**



Sources: MINHAP and AIReF estimates

N.B.: This indicator measures adjusted per capita expenditure for 2012-2013, in the functions of Health, Education and Social Protection of the Functional Classification (COFOG).

Given the weight of expenditure on basic public services in all ARs (over 70% of total spending), a correlation can be seen between this expenditure in per capita terms and like-for-like primary per capita expenditure.

## SUFFICIENCY OF NON-FINANCIAL REVENUES WITH AVERAGE LIKE-FOR-LIKE EXPENDITURE

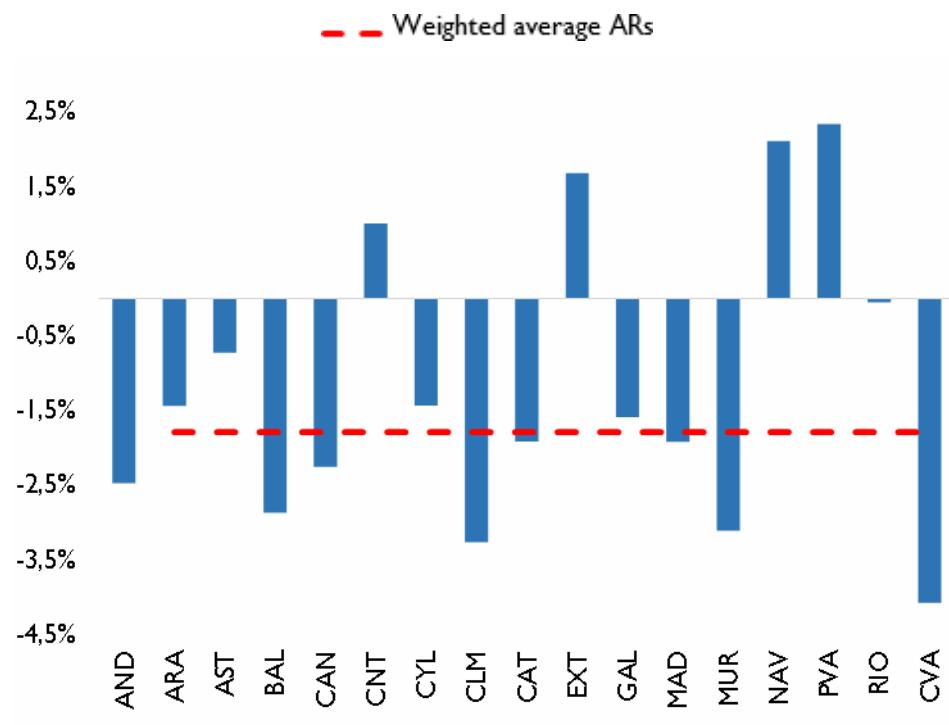
This indicator attempts to approximate the financing capacity or need that the Autonomous Regions would have had on average for 2012-2014 if, while maintaining the revenues they had and the non-standard expenditure, the expenditure that they would have made on standard (like-for-like) competences had been equal to the average for the period. Hence, it is a revenue sufficiency indicator.

The starting point is the figures for the non-financial resources published by MINHAP in October in the 2012-2014 national accounting series information on non-financial transactions of the Regional Government subsector (S.1312) and breakdown by regions (*Operaciones no financieras del subsector Administración Regional (S.1312) y detalle por comunidades. Información anual 2012-2013*).

The amount of average per capita primary like-for-like expenditure, obtained as explained in the previous section, has been applied to the adjusted population to give the expenditure for each region, plus the amount of interest payments, spending on non-standard competences and the amount corresponding to the uses that have been transferred to the State by the financing system.

The difference between total expenditure and non-financial resources, when divided by regional GDP, gives the financing capacity or need that each region would have had, as a percentage of GDP, if its like-for-like expenditure had been adjusted to the average. This is shown in Graph 6.

**GRAPH 6: SUFFICIENCY OF NON-FINANCIAL REVENUES GIVEN AVERAGE LIKE-FOR-LIKE PRIMARY EXPENDITURE (% GDP)**



Sources: INE, MINHAP, ARs and AIReF estimates

N.B.: This indicator measures the average financing capacity or need, as a % of GDP, for 2012-2014 if the like-for-like primary expenditure per adjusted inhabitant had been in line with the average for the subsector



## ANNEX III

### Methodology used to estimate the expenditure rule

## METHODOLOGY USED TO ESTIMATE THE EXPENDITURE RULE

The main budgetary lines questionnaires submitted by the Autonomous Regions (ARs) only contain an estimate of the possible eligible expenditure for 2016, rather than the information required for calculating the expenditure rule, and they do not include any breakdown of the elements it comprises or how it relates to the budget scenario. For this reason AIReF has requested this information in a specific questionnaire that most of the ARs have completed and submitted.

However, there are several developments that have had a fundamental impact on the quality and uniformity of the data received:

- Firstly, the Guide for determining the expenditure rule for Autonomous Regions and the final information for year-end 2014 were published by MINHAP after the ARs had submitted the information to AIReF. This has affected the uniformity of the data such that interpretative differences can be appreciated between ARs and, in some cases, gaps in completing certain items of eligible expenditure;
- Secondly, the amount of the normative revenue measures taken into consideration by MINHAP when calculating the eligible expenditure for 2014 is unknown. This affects the starting point or baseline figure for calculating the expenditure rule in 2015 and therefore in 2016.

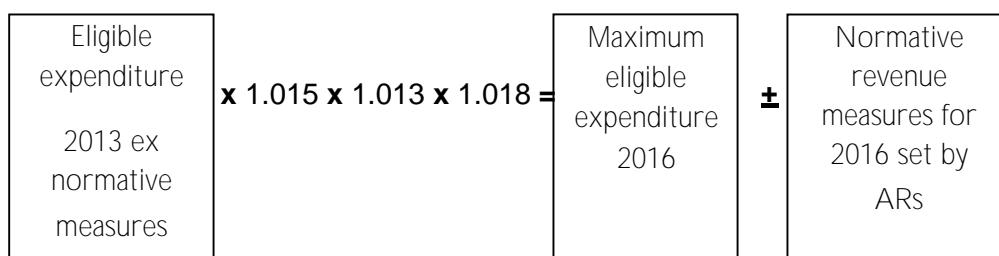
Against this backdrop, AIReF has used a standard or like-for-like methodology for estimating eligible expenditure, in order to approximate the maximum spending that would allow for compliance by region with the expenditure rule in 2016.

For the purposes of the expenditure rule, primary non-financial uses (non-financial uses minus interest expenditure)—basically the spending financed by allocated funds and spending that entails transfers between different subsectors of the general government sector stemming from the financing system—are excluded from the expenditure calculation. This sum is then adjusted for the increases and/or reductions in revenues due to legislative changes. Bearing this in mind, an inverse method has been used to determine the non-financial uses and expenses in budgetary terms that would allow compliance with the expenditure rule, from the maximum eligible expenditure for 2016. This entails the following steps:

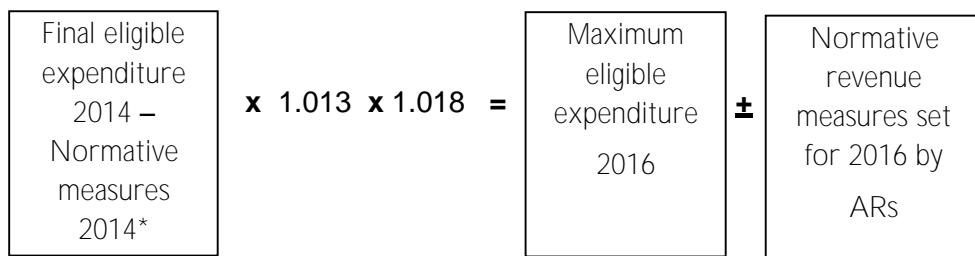
- 1. Calculation of the maximum eligible expenditure in 2016.** First of all, a calculation was made of the maximum eligible expenditure for 2016 for each

region that would allow compliance with the expenditure rule by extrapolating the eligible expenditure for the last year in which each region was known to have complied with the expenditure rule (2013 or 2014, depending on the region) using the reference rate for each year. The starting point for this calculation was the information on eligible expenditure published by MINHAP in its October 2015 report (available in Spanish) on compliance with the stability and debt targets and expenditure rule in 2014<sup>34</sup>.

a) For the ARs that failed to comply with the expenditure rule in 2014, the starting point for calculating the maximum eligible expenditure in 2016 is 2013, the last year of compliance. This is extrapolated in line with the reference rate for each year (1.5% in 2014, 1.3% in 2015 and 1.8% in 2016). The result is then corrected by the amount of the normative revenue measures reported by the ARs:



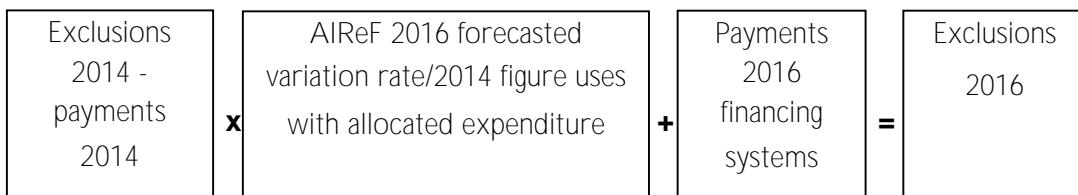
b) For the ARs that complied with the expenditure rule in 2014, the information on the revenue measures provided by the regions has been used to estimate most of the 2014 normative measures that MINHAP would have taken into account in each region, as this breakdown is not included in the October report (only the amount of the items taken into account for calculating the expenditure rule for the ARs as a whole is published, but not individually for each region). The 2014 eligible expenditure net of the estimated revenue measures has been extrapolated in line with the pertinent reference rates and, once again, the result is adjusted as follows:



\* AIReF estimates the distribution by Autonomous Region of most of the normative revenue measures considered by MINHAP in the final 2014 eligible expenditure

<sup>34</sup> [Informe sobre el grado de cumplimiento de objetivo de estabilidad presupuestaria, y de deuda pública y de la regla de gasto del ejercicio 2014](#) (available in spanish)

- 2. Estimate of the expenditure excluded from primary non-financial uses (exclusions) in 2016.** The difference between the eligible 2014 expenditure without the estimated normative measures and the year's primary non-financial uses figure gives the exclusions for 2014. These are used to estimate the 2016 exclusions by extrapolating the 2014 exclusions. The variation rates of the uses expected by AIReF for 2016 have been taken for this, comprising mostly the expenditure that is not financed with allocated funds. But first, payments made to the State or to the Local Corporations as part of financing systems during the year have been stripped out from the exclusions. The figure resulting from applying the variation rate is added to the payments made to the Central Government and the Local Corporations as part of the financing systems in 2016.



- 3. Estimate of maximum non-financial uses compatible with the expenditure rule.** The two items above are added to give the maximum primary non-financial uses pursuant to the expenditure rule and, if the expense generated by the interest estimated by AIReF for 2016 is added, it gives the maximum non-financial uses compatible with the expenditure rule. An analysis of the relation between expenditure in each region each year and the non-financial uses defined in national accounting terms, gives an estimate of the maximum permitted budgetary expenditure for compliance with the expenditure rule.

Estimated maximum uses and their performance against last year are compared with the AIReF forecasts to determine whether or not there is a risk of non-compliance with the expenditure rule in 2016, depending on the deviation observed, and, while maintaining the AIReF revenue forecasts, what the balance would be while complying with the rule. Expenditure in budgetary terms is also compared with the forecasts of each region to determine whether the regional estimates are in line with the expenditure rule.

According to these calculations, a risk of failure to comply with the expenditure rule in 2016 has been observed for the regions of Andalusia, Castilla-La Mancha, Catalonia, Extremadura and Valencia, and the regions of the Balearic Isles, Castilla y Leon and Galicia face certain difficulties in complying with the expenditure rule. It also suggests that compliance with the expenditure rule in 2016 in Andalusia, Asturias, Canary Isles, Castilla y León, Galicia, Navarra, the

Basque Country and La Rioja may require a more stringent balance than the -0.3% of GDP set as the budget stability target for 2016.

From another complementary standpoint, eligible expenditure net of revenue measures has been calculated based on AIReF's 2016 forecasts for primary non-financial uses, once the exclusions have been estimated for 2016 as explained above. The estimated eligible expenditure has been compared with the eligible expenditure from the previous year or, in the case of non-compliance or expected non-compliance with the expenditure rule in the previous year, with eligible expenditure from the last year of compliance, multiplied by the pertinent reference rates. This analysis shows whether or not the year-on-year change is greater than the expenditure rule reference rate each year. Rates of change in the estimated 2016 eligible expenditure higher than the reference rate for that year (1.8%) have been found in the regions listed above, suggesting a risk of failure to comply or possible difficulties in complying with the expenditure rule.

## ANNEX IV

# Autonomous Regions Debt Sustainability Analysis: appraisal **of the impact of “implicit” financial** bailout mechanisms

## Autonomous Regions Debt Sustainability Analysis: **appraisal of the impact of “implicit” financial bailout mechanisms**

The institutional environment is a key factor in any sustainability analysis of regional public finances. This can be seen from the methodology used by the principal risk rating agencies. The mere existence of bailout mechanisms (even without actually using them) is a de facto improvement in the rating of regions or subnational authorities, which benefit from more advantageous funding conditions because of them.

In the case of Spain, the Organic Law on Budget Stability and Financial Sustainability (LOEPSF) states in article eight that there are no bailout mechanisms. However, the Central Government in Spain has made more than €150bn available to the Autonomous Regions (ARs) at a cost for 2016 of 0.834% (and even sometimes at 0% interest) by means of additional funding mechanisms that currently include the Regional Liquidity Fund (FLA, as it is known in Spanish), the Financial Facility, the Social Fund and the Settlement Fund for Financing Payments to Suppliers. In general, these mechanisms are regulated under additional provision one of the LOEPSF but, in order to do so, they have had to be excluded from the scope of application of article 8 by a transitory provision. Furthermore, in the current framework, the total maximum cost of borrowing operations of the ARs is established in the Ruling issued by the General Secretariat of the Treasury and Financial Policy of July 2015 that defines the principle of financial prudence applicable to the regions' borrowing operations. This ruling stipulates that the maximum total cost of borrowing operations is defined by a spread or premium on the Central Government cost of funding for the average term of the operation.

These mechanisms —initially established as temporary measures— have been made more permanent by Royal Legislative Decree 17/2014 on financial sustainability measures for autonomous regions and local corporations, and with the elimination of the temporary nature of additional provision one of the LOEPSF, amended in June 2015. Maintaining a system of aid or “covert financing” beyond merely occasional cases of lack of liquidity or risk of default however, represents a distortion of the ground rules of the financing system, by changing the inter-temporal budgetary restrictions of the ARs (see, for example, Barrios and Martínez-López, 2014)<sup>1</sup>. The existence of bailout mechanisms influences the way regions behave by introducing a bias towards deficit in their behaviour, without taking into account its repercussion on the aggregated balance (common pool problem).

The analysis conducted in this Annex attempts to approximate the impact of eliminating the one-off financing mechanisms in terms of the cost of debt servicing and debt sustainability for the four ARs identified as the most vulnerable in the analysis conducted in the main text: Castilla-la-Mancha, Catalonia, Murcia and Valencia. Two approaches are used: (i) simulating linear scenarios of how debt responds to possible interest rate hikes (as the effective market rate is higher than the interest offered under the mechanisms); and (ii) considering possible non-linear effects or effects anticipating a default or bankruptcy by calculating indicators of illiquidity or need for a bailout.

### **1. Linear approach using a calibrated stress test**

This test consists of applying a disturbance to the cost of debt or interest burden path. The resulting alternative path must be compared with the base line path (the indefinite application of the FLA such that the ARs would fund themselves at the same cost as the Central Government from 2018).

Calibrating the disturbances is undoubtedly the cornerstone of these simulations. The impact has to be appraised in terms of debt yield in the two alternative scenarios. First of all, consideration would be given to a progressive withdrawal of the one-off mechanisms although the possibility of a bailout by the Central Government would be maintained (remaining within the institutional framework defined above). Second, stress on return-to-market conditions is increased under the assumption that all possibility of a bailout of regional public finances is (credibly) eliminated.

These scenarios are translated into the cost of debt in basis points in three steps:

- i. The yields on 10-year bonds (or similar) are compiled for all EU member countries and the averages are calculated for groups of countries based on their ratings at 10/11/2015 according to the three principal rating agencies. The groups and the averages in terms of risk premium compared against the German bond can be seen in Table 1.
- ii. The Autonomous Regions are put into one of the groups defined in Table 1 based on the ratings given them by these same agencies (see last row of Table 1).

The four Autonomous Regions identified obtain a speculative investment rating from at least one of the rating agencies, although not necessarily from all of them (Andalusia is also given a low rating, but it is not included in this analysis because its debt does not face sustainability problems). At this point, it should be noted that the rating agencies apply a modification to the rating of the ARs based on their chances of being bailed out by the

central government. In the case of Fitch, which is the most specific in terms of the impact of a strong institutional environment that increases liquidity and reduces the risk of bankruptcy, these factors (LOEPSF, FLA, extension on negative settlement refunds and art. 135 of the Constitution) represent a floor for the ratings of the ARs. More specifically, the floor is one notch below the rating of the country.

The fact that this floor exists would imply that three of the four ARs identified would fall between two groups: the group with adequate payment capacity with risks in the mid and long term (lower-medium), insofar as they can be bailed out by the State, and the group with moderate capacity with medium-term risk (non-investment, speculative), where they would fall without such an implicit floor clause. In the case of Catalonia, Fitch's last revision of its rating eliminates the floor effect and puts it directly in the speculative category for all the rating agencies.

Table 1: EU countries and ARs based on the credit rating of their sovereign risk and equivalence between transposition and risk premium

	Prime and High Medium	Upper Medium	Lower Medium	Non-Inv speculative		Highly speculative	At risk
<i>Countries included in the spread calculation</i>	AT,BE,FI,FR, LU,NL,CZ, DK,UK,SE	IE,LT,LV,MT ,SI,SK,CZ, PO	ES,IE,IT,MT,SI,BG,RO	CY, PT,BG, HR, HU		CY	EL
<i>average spread with D-bund</i>	30	88	150	282		42	3
Ars		Nav,PV	Ara, Bal, Can,Cnt, Cyl, Ext, Gal, Rio, Mad	And, CIM, Mur, Val	And, CIM, Mur, Val	Cat	

- iii. The interest rates that would prevail for the four ARs in the stress situations identified are calculated: (a) one on the assumption that the ARs had no access to the FLA and had to resort to the market, based on their rating of lower-medium in investment grade, and (b) another, on the assumption that, apart from the above situation, there were also no chance of a bailout by the State, with the consequent impact on the rating/risk premium that would earn them a rating of speculative investment. These two scenarios are simulated for the ARs identified, except for Catalonia. Scenario (a) is ruled out for Catalonia because of its recent rating cut which would make it impossible to finance at similar costs to those implicit in such a scenario.

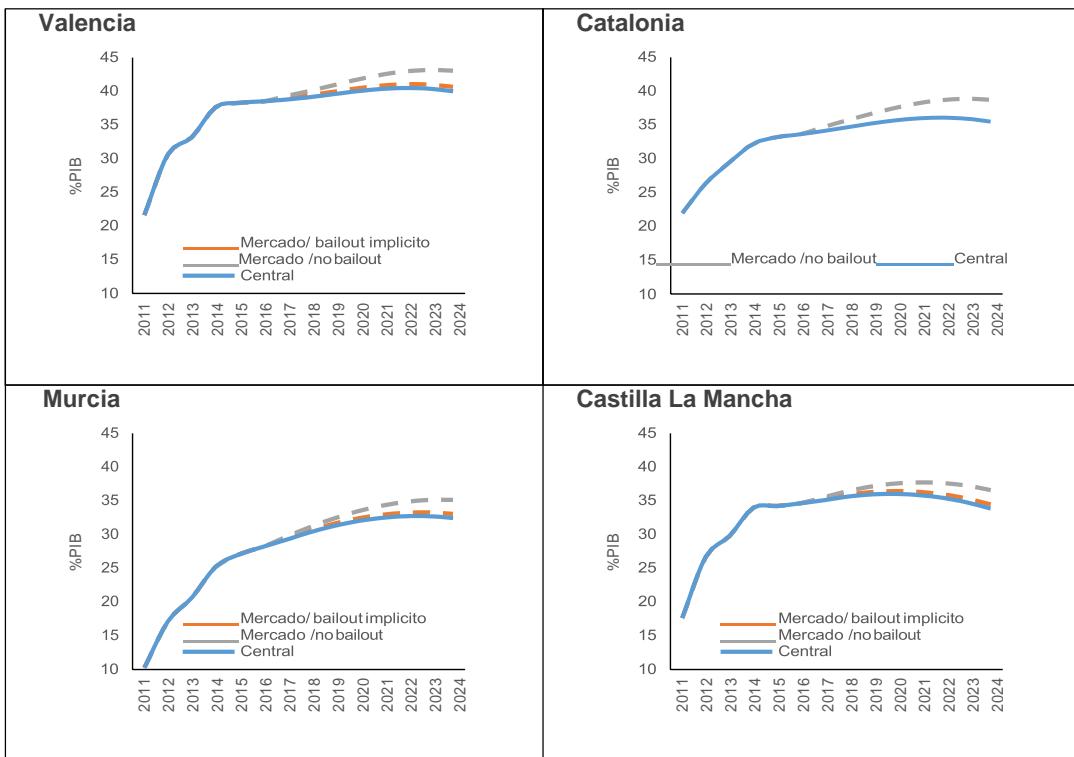
The costs in terms of interest rates are calculated for these two situations, bearing in mind the yields of the German bond and the averages of the spreads calculated in step (i) for the different ratings. This gives a spread of 30 and 160 basis points against the cost of the German 10-year bond to apply in scenarios (a) and (b) respectively (also in line with existing evidence, for example, with respect to the corporate debt market in the United States)<sup>2</sup>.

This initial gap is assumed to close over the period studied, in line with the evidence presented in Jaramillo and Tejada (2011) for a panel of emerging economies in 1997-2010<sup>3</sup>. These authors find that variations in notches within the speculative groups (everything from non-investment downwards) has no impact on the yield, and differences in notches within the upper part (investment grade) have a moderate 10-15% impact on the spread. The greatest impact comes from changes from one group to another, specifically, the step from investment to non-investment grade, which can have an impact on the spread of up to 36%.

Hence, the difference against the cost of the Spanish sovereign bond would tend to reach 10 and 60 basis point in the medium term in the two stress situations defined above. These estimates can be considered prudent insofar as a convergence between the ratings of the State and the ARs cannot be ruled out as the latter move their fiscal consolidation process forwards. Calibrating the disturbance however, remains subject to the European Central Bank maintaining its asset purchase policy and they do not factor in the second round impact that the exit of certain regions from the system could have on the cost of the debt for the State, due to the elimination of a possible contingent liability for instance.

On the other hand, the rate at which the spreads close and their final magnitude become dependent on fiscal consolidation efforts measured by the performance of the debt, such that increases in debt will translate into increases in the slope of the spreads and vice-versa. The transposition of debt adjustments to the factors that determine the slope has been done proportionally, one to one, and it puts the gap of the spreads prevailing at the end of the period under study above the central points, 10 bp or 60 bp, if the debt has increased, or below if the debt has decreased. Evidence of the relation between increases in debt and cost of funding can be found in Laubach (2007)<sup>4</sup>. Figure 1 shows the debt for these ARs in the base line scenario and the two alternative scenarios in its different panels.

Figure 1: Public debt scenarios, 2011-2024



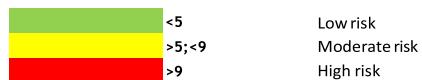
## 2. Non-linear approach using liquidity/need for a bailout indicators

The sensitivity exercise of section 1 evidently suffers from several constraints. These include the fact that it does not contemplate the possibility of a de facto exit from the market because of a liquidity effect triggered by the return to market conditions.

Liquidity or short-term stress indicators are calculated to get an idea of the possible threat of bankruptcy or default that leaving the FLA and returning to market conditions (associated with its fundamentals) would entail, such as the interest rate-to current revenues ratio for example, combined with the debt/GDP ratio or other fiscal stress indicators (see graphs of Financial Sustainability and Fiscal Stress in the reports on each region). Figure 2 shows the values that this indicator reaches for the four autonomous regions considered in the three scenarios considered, and also indicates the cases in which the 5% stress threshold (in yellow) and the 9% stress threshold (in red) are exceeded. Standard & Poor's methodology of stress indicators for the debt burden in local and regional governments has been taken as a guide for establishing these thresholds.

**Figure 2: Interest rate to adjusted current revenues ratio scenarios (net of funding system transfers to the State) 2013-2018, %**

		2013	2014	2015	2016	2017	2018
CAT	Central	8,5	8,8	3,9	3,9	6,6	9,6
	Market/bailout	8,5	8,8	3,9	3,9	8,7	10,3
	Market/ no bailout	8,5	8,8	3,9	3,9	11,6	13,4
CVA	Central	8,2	8,0	2,2	2,6	5,4	8,7
	Market/bailout	8,2	8,0	2,2	2,6	7,4	9,4
	Market/ no bailout	8,2	8,0	2,2	2,6	10,0	12,4
CLM	Central	7,5	7,4	2,3	3,0	4,8	6,7
	Market/bailout	7,5	7,4	2,3	3,0	6,1	7,1
	Market/ no bailout	6,9	6,8	2,1	2,9	7,6	9,0
MUR	Central	6,4	7,3	2,6	3,1	4,5	6,2
	Market/bailout	6,4	7,3	2,6	3,1	5,8	6,6
	Market/ no bailout	6,4	7,3	2,6	3,1	7,6	8,5



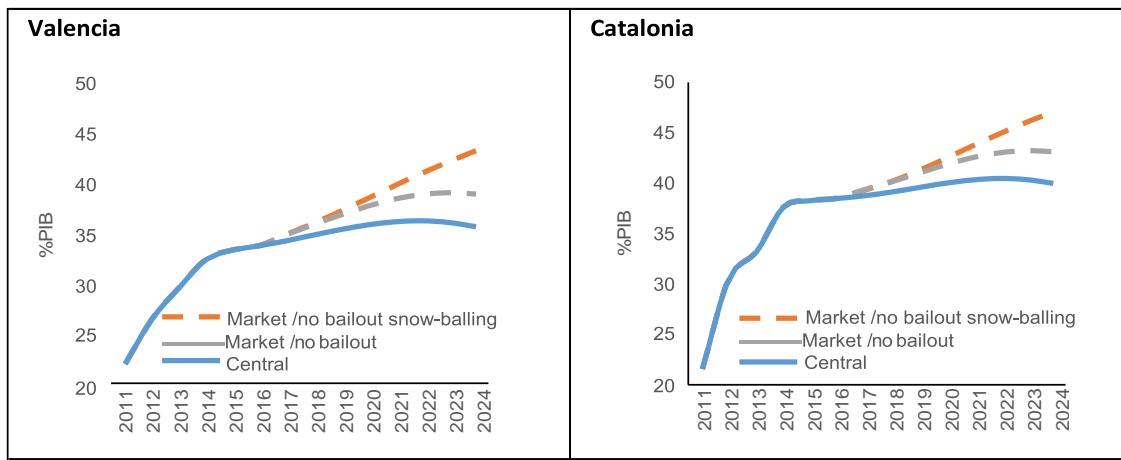
The performance of these ratios in the different scenarios indicate that Catalonia and Valencia, especially the former, are particularly susceptible to sustainability issues from 2018 or even in 2017, depending on which scenario is considered. Although the baseline Valencia region debt is higher than Catalonia's debt in terms of percentage of GDP, the poorer ratios of the latter are explained both in terms of its numerator and because of a denominator effect. With respect to the numerator, Catalonia must face a higher average cost of financing and, with respect to the denominator effect, poorer adjusted current transfer revenues are a factor for Catalonia, especially at the beginning of the period under consideration.

Difficulties in facing the debt burden could trigger a similar reaction in the markets to what occurred with Greek sovereign debt in 2010 and 2015, or the Cypriot debt episode of 2012, when spreads started to increase rapidly fed by their own impact on fiscal sustainability, in line with the evidence presented in Corsetti et al. 2012<sup>5</sup>.

As an additional stress test, a simulation has been done of a performance similar to these cases for the two regions mentioned, assuming a spread track constructed on the basis of the average spread of sovereign debts in the highly speculative category (see Table 1). More specifically it is assumed that the spreads move around a base line path that goes from 160bp to 300bp in seven years, starting in 2017, with the slope adjusted dynamically depending on the performance of the debt in the same way as was done in the Figure 1 scenarios.

The resulting debt curves (Figure 3) show unsustainable profiles, illustrating the effects that raising capital on the markets could have if the fiscal sustainability efforts are not sufficiently sound and/or without an institutional framework with the necessary contention mechanisms.

**Figure 3: Public debt 2011-2024. Stress scenarios**



<sup>1</sup> Barrios S. y Martínez, D. 2014. "Fiscal Equalisation Schemes and Sub-Central Government Borrowing", GEN Working Paper A 2014-1.

<sup>2</sup>[http://www.bondsonline.com/Search\\_Quote\\_Center/Corporate\\_Agency\\_Bonds/Spreads/Industrial\\_Spreads.php](http://www.bondsonline.com/Search_Quote_Center/Corporate_Agency_Bonds/Spreads/Industrial_Spreads.php).

<sup>3</sup> Jaramillo, L. and Tejada, C.M. 2011. "Sovereign Credit Ratings and Spreads in Emerging Markets: Does Investment Grade Matter?". IMF Working Paper WP/11/44.

<sup>4</sup> Laubach, T., "New Evidence on the Interest Rate Effects of Budget Deficits and Debt". Finance and Economics Discussion Series. Board of Governors of the Federal Reserve System.

<sup>5</sup> Corsetti, G., Kuester, K., Meier, A. and Mueller G.J. 2012, "Sovereign Risk, Fiscal Policy, and Macroeconomic Stability". IMF Working Paper, WP/12/33."