



Independent Authority
for Fiscal Responsibility

Subnational Debt Sustainability Analysis: an encompassing approach

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1. Regional DSA context

Debt targetting is inoperational under the current framework

- Initial target includes:
 - ΔD to finance deficit target (0,3% of GDP in 2016)
 - ΔD to finance the corresponding tranche of the negative liquidation from 2008 and 2009
 - ΔD in excess from t-1 target
- Initial target extended:
 - ΔD to finance the excessive deficit through State liquidity funds

1. Regional DSA context

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 - ΔD to finance the corresponding tranche of the negative liquidation from 2008 and 2009
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No info

- Initial target extended:

- ΔD to finance the excessive deficit through State liquidity funds **Up to 50% of debt increases!**

No info

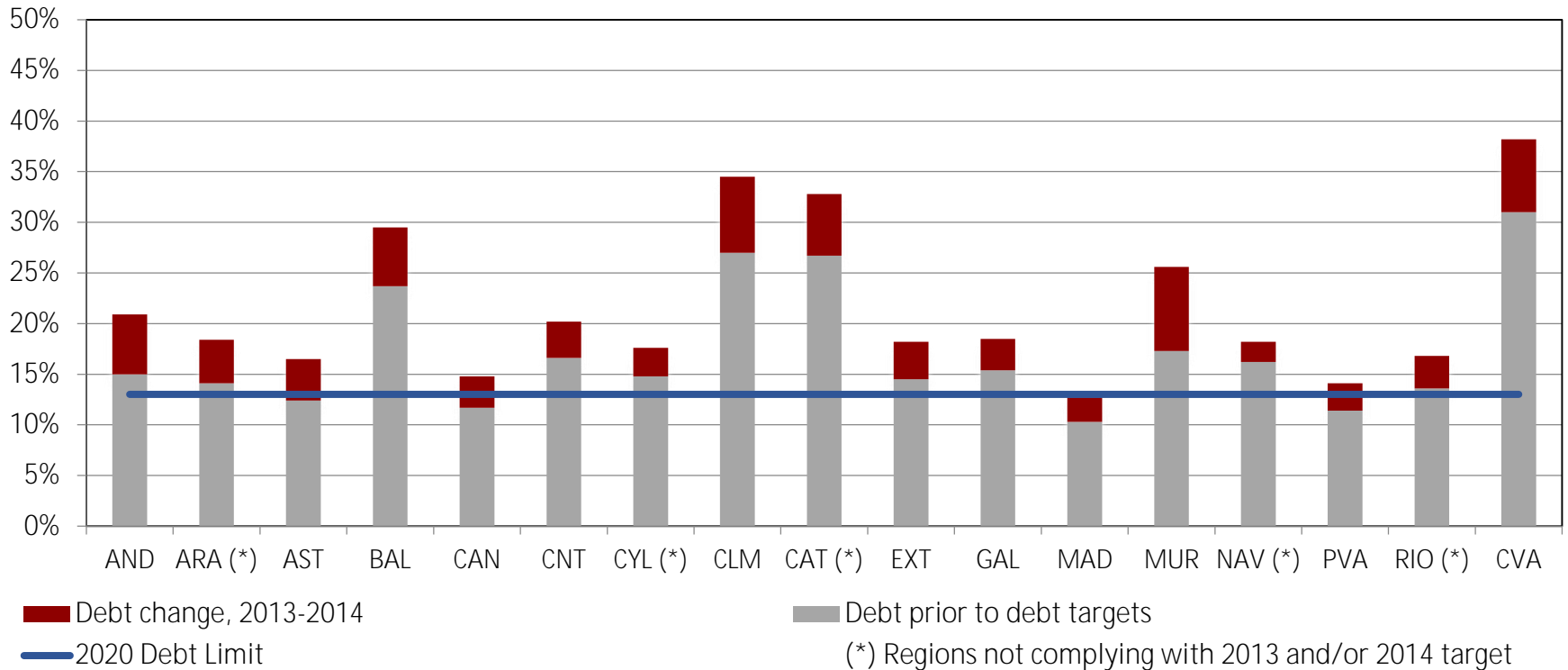
1. Regional DSA context

Debt targetting is inoperational under the current framework

- Targetting is distorted via exceptions
- Timely monitoring is precluded
- Compliance with the D target is not related to:
 - Current debt stock
 - Gap with respect to 13% GDP reference level
 - Deviations since beginning of the framework in 2013
 - Increases since beginning of the system in 2013

1. Regional DSA context

Debt stock, Spanish Regions



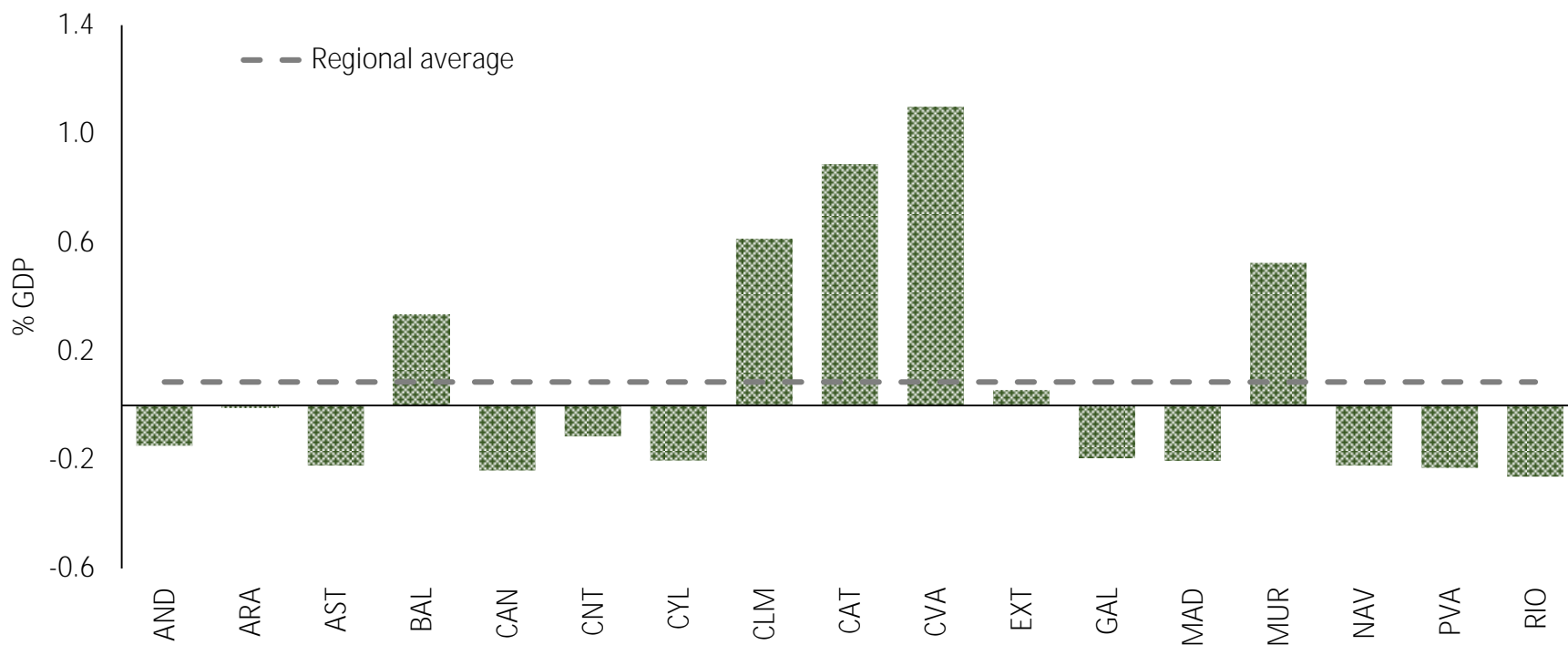
Source: INE, MINHAP, BdE, AIReF

Need for a medium-long term sustainability analysis

2. Monitoring: short to medium term indicators

Heterogenous effort needs towards debt sustainability

Medium-term fiscal effort indicator: S1-type

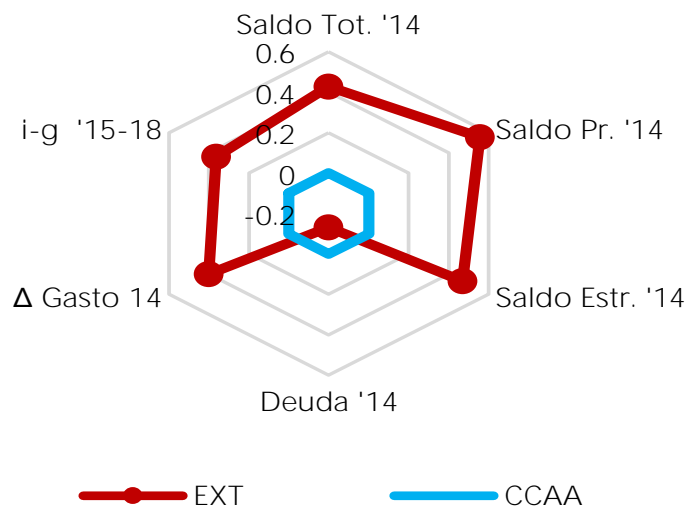


Source: AIReF

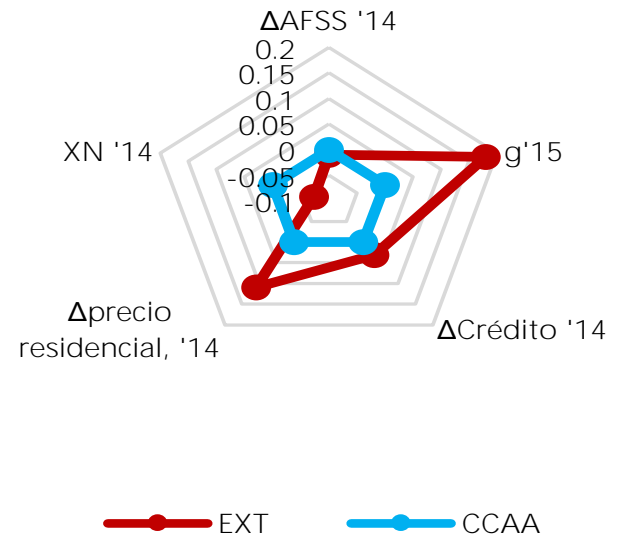
2. Monitoring: short to medium term indicators

Fiscal risks should not be looked at in isolation

Short-term fiscal stress



Short-term macro stress

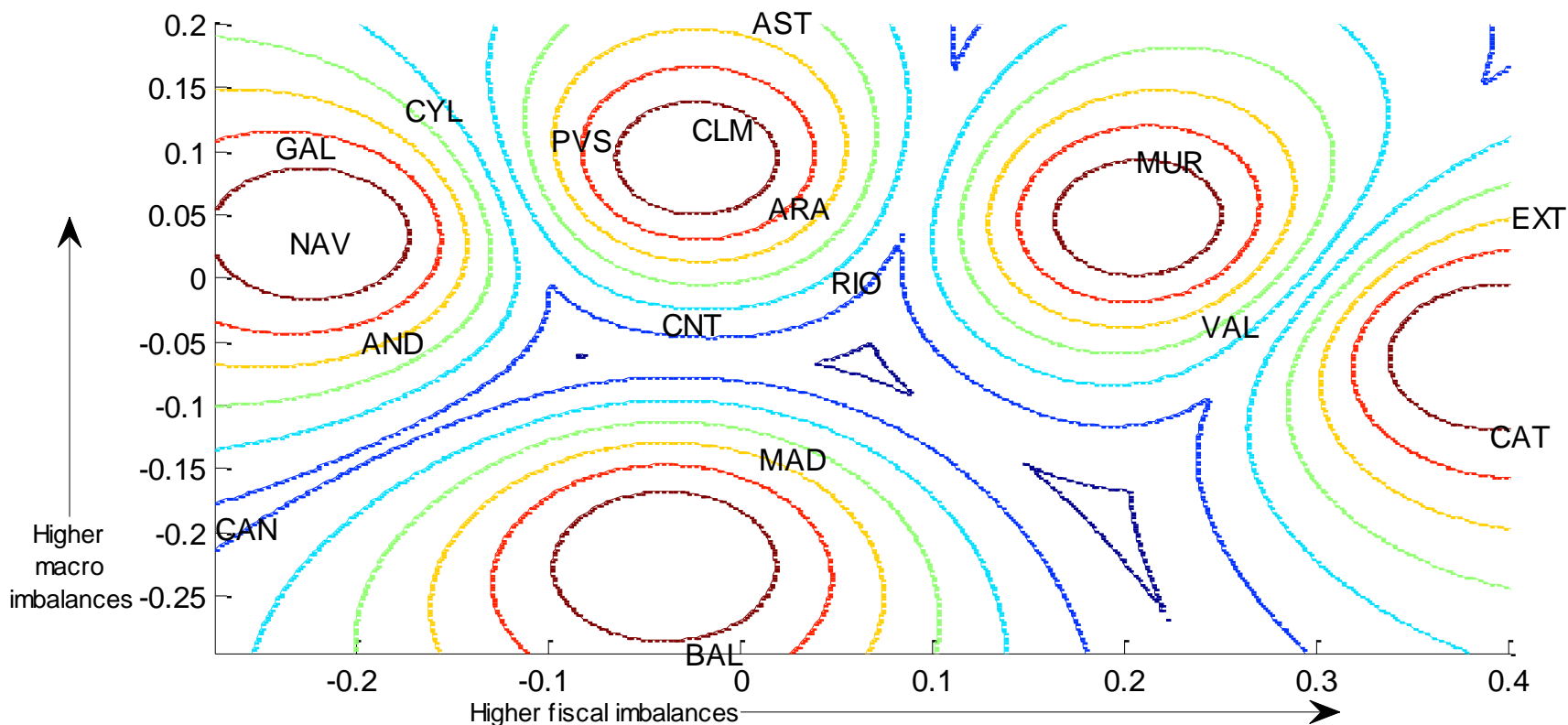


Source: AIReF

2. Monitoring: short to medium term indicators

Fiscal risks should not be looked at in isolation

Short-term stress, composite indicators clustering



Source: AIReF

3. Debt sustainability analysis

Debt paths based on the debt accumulation equation

The scenarios are assumption-dependent:

- let's be prudent...and realistic
 - A. Evolution of the numerator:
 - Financing costs
 - Fiscal policy
 - B. Evolution of the denominator:
 - Real GDP
 - GDP deflator
- + Sensitivity analysis under alternative shocked scenarios

3. Debt sustainability analysis

AIReF leads the way in regional quarterly GDP estimations

METCAP model:

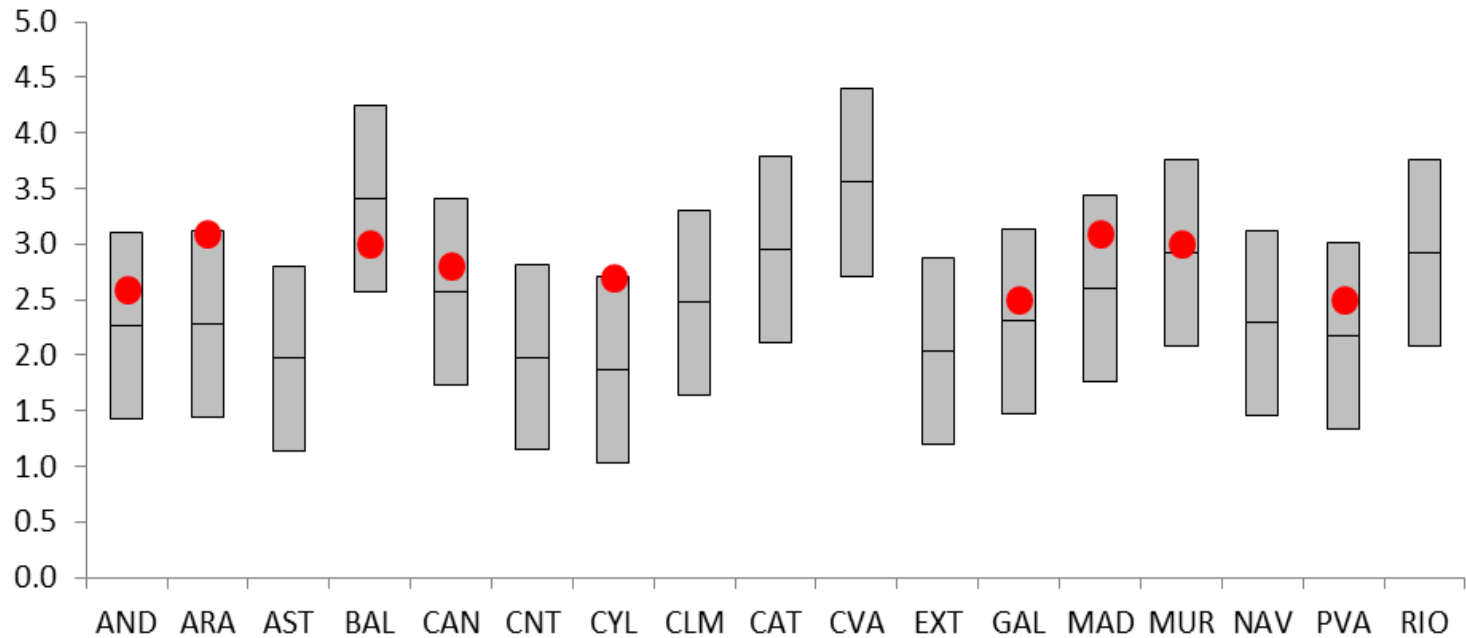
- Estimates regional GDP, providing quarterly profiles for the annual official observed data
- Combines time series models with benchmarking methods to ensure temporal and transversal consistency with the National Accounts data (RA, QNA)
- Additionally this model can be used for pure forecasting purposes.

The transversal benchmark of the model (the national quarterly GDP) is combined with the projected path for the underlying quarterly regional indicators to generate the corresponding regional quarterly GDP's forecast

3. Debt sustainability analysis

AIReF leads the way in regional quarterly GDP estimations

METCAP model: 2016 GDP growth forecast, %



Source: AIReF

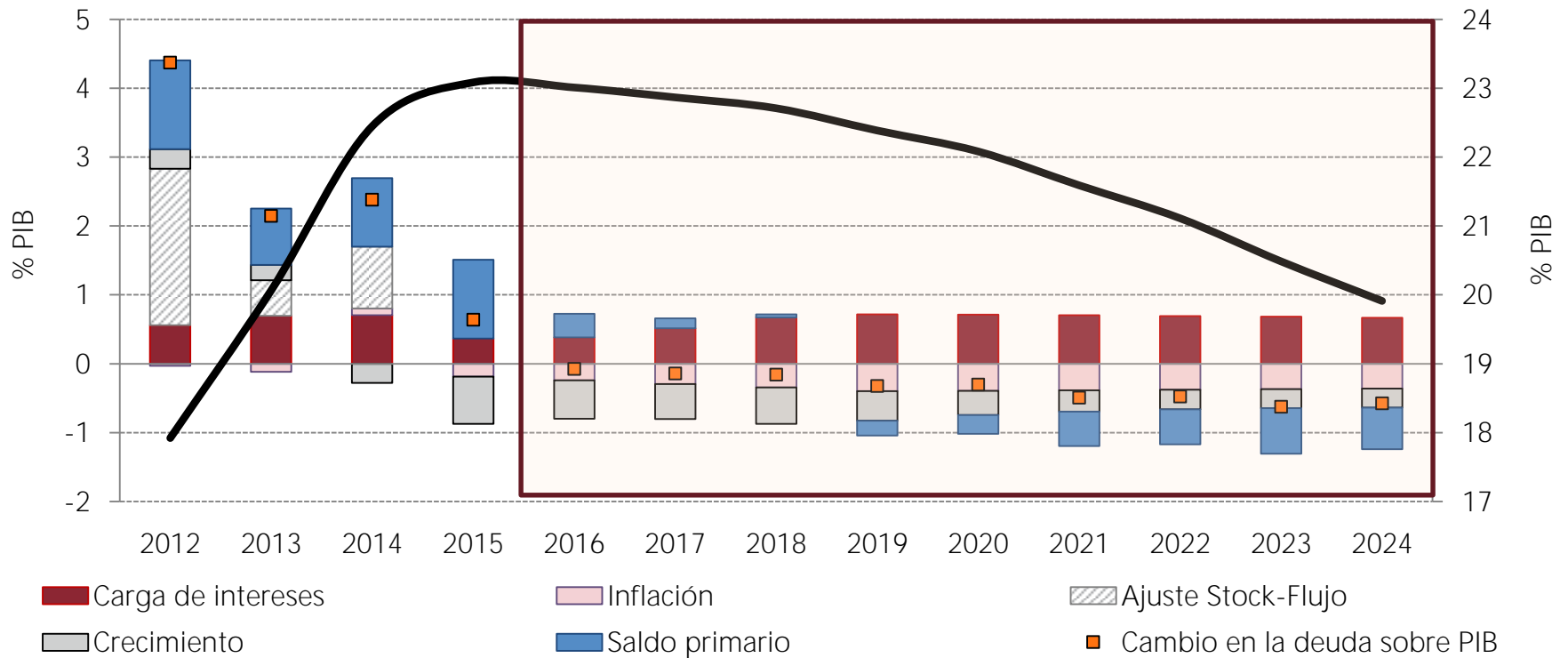
Note: red dots represent official figures from the regional governments



3. Debt sustainability analysis

Debt paths based on the debt accumulation equation

Baseline scenario, debt/gdp and main contributing factors



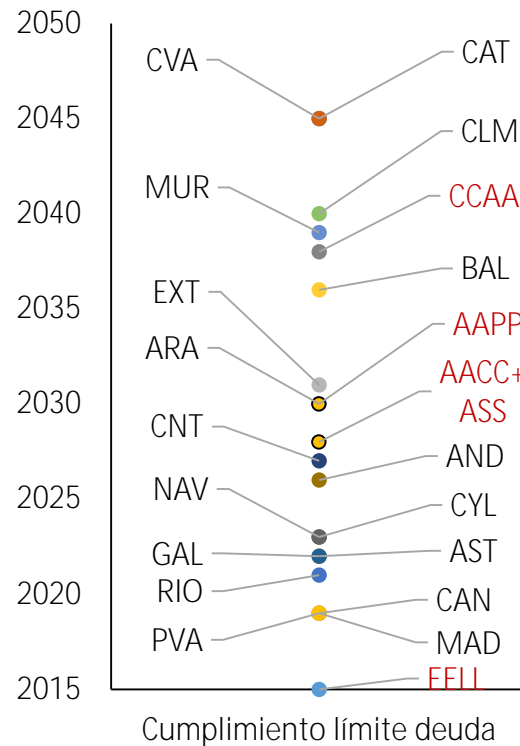
Source: AIReF



3. Debt sustainability analysis

Looking at the individual regions yields a differentiated picture

Date of compliance with reference under the baseline scenario

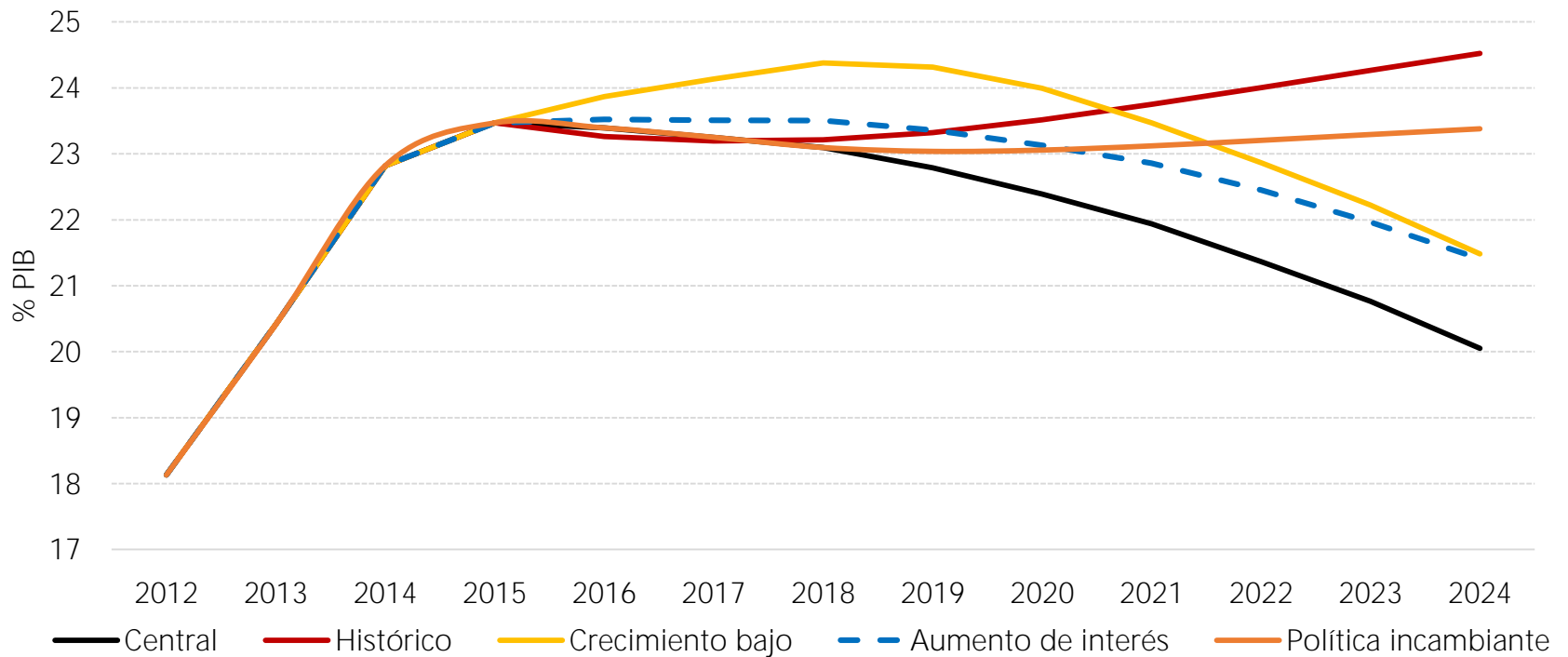


Source: AIReF

3. Debt sustainability analysis

Debt paths based on the debt accumulation equation

Alternative scenarios, debt/gdp dynamics, 2012-2024



Source: AIReF



4. Illustrative exercise

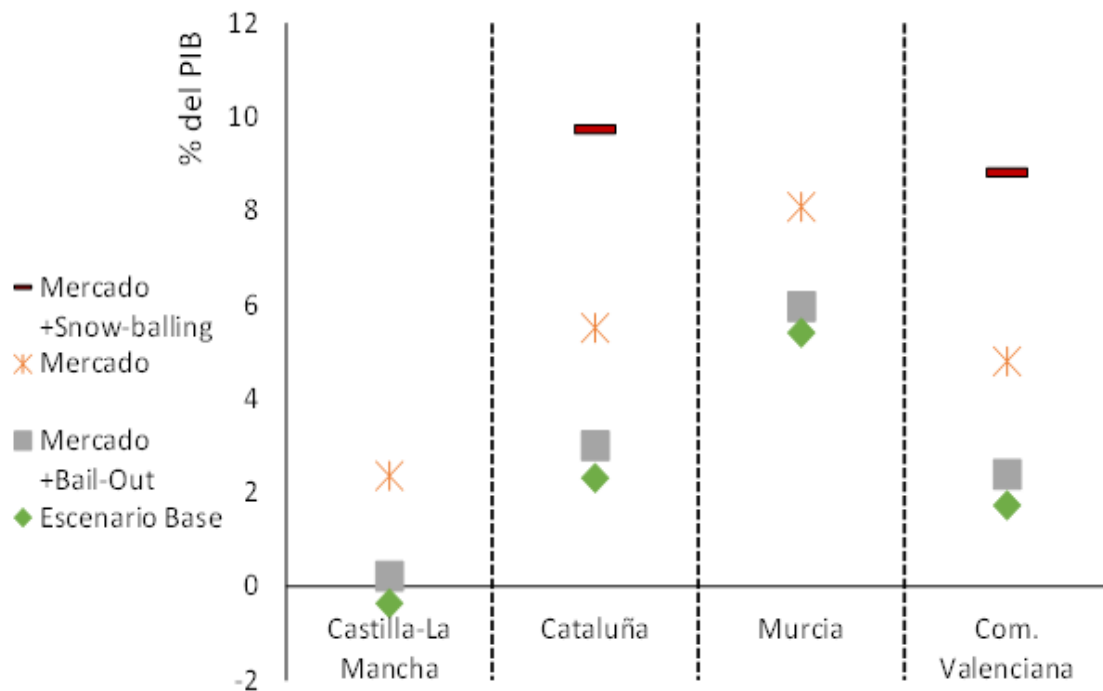
Evaluation of the “implicit” bail-out schemes

- Simulation-based analysis:
 - i. Baseline scenario: explicit financing through State mechanisms
 - ii. Alternative scenario I: back to the market without a credible bail-out clause
 - iii. Alternative scenario II: back to the market with a credible no bail-out clause
- Assessment of potential anticipatory effects
 - iv. Alternative scenario III: scenario II + snow-balling of the debt accumulation

4. Illustrative exercise

Particularly relevant for the regions under higher fiscal stress

Debt/GDP accumulation between 2015 and 2024 for the different scenarios



Source: AIReF

5. Challenges...

- Stochastic approach as done at the aggregate level: data constraints
- Better treatment of potential endogeneity: fiscal multiplier, interest rate effect on growth, hysteresis, etc.
- More interaction and exchanges with the regions

...and way ahead

- Transparency and disclosure of the data and the analysis: new web portal coming soon

References

- Cuevas, A. y Quilis, E.M. (2015) “Quarterly regional GDP flash estimates for the Spanish economy (METCAP model)”, AIReF, Documento de Trabajo 3/ 2015.
- Cuevas, A., Quilis, E.M. y Espasa, A. (2011) “Combining benchmarking and chain-linking for short-term regional forecasting”, Departamento de Estadística, Universidad Carlos III de Madrid, Working Paper n. 11/41.
- Cuerpo, C. (2014) “Spanish Public Debt Sustainability Analysis”, AIReF Working Paper 2/2014.
- Informe sobre las Líneas Fundamentales de los presupuestos para 2016 de las CCAA ([link](#))

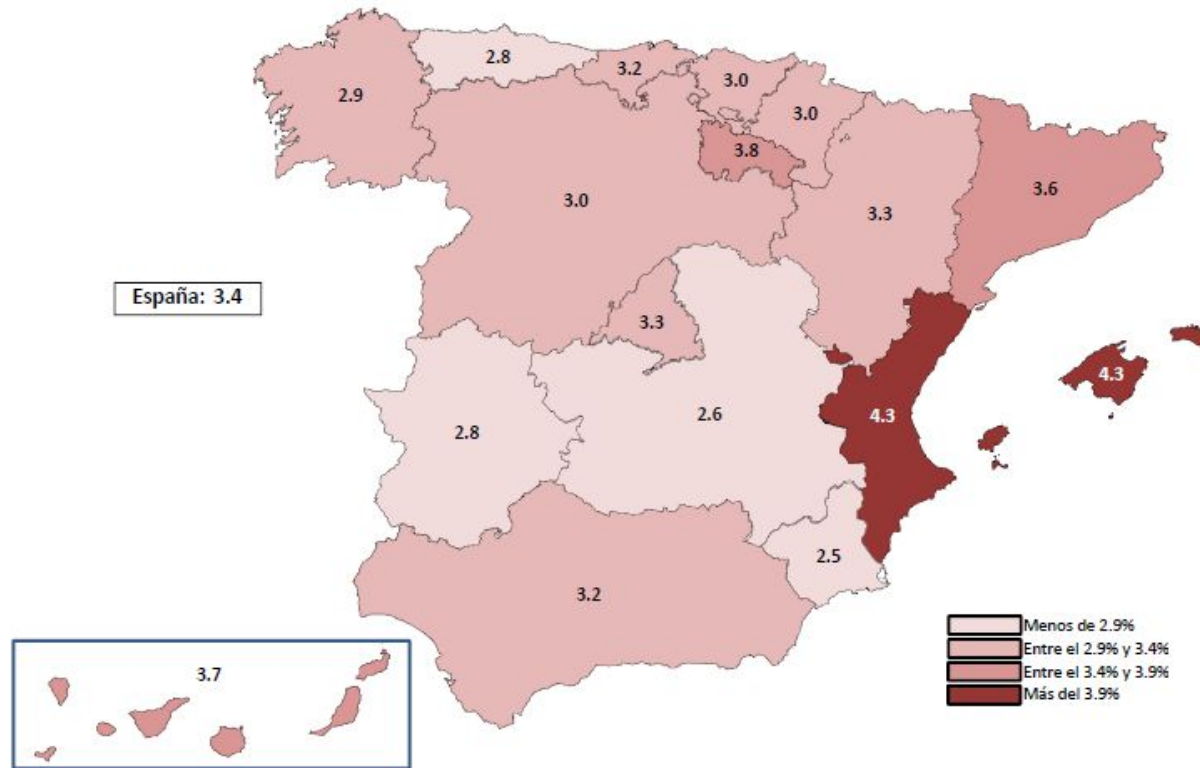
Thank you



3. Debt sustainability analysis

AIReF leads the way in regional quarterly GDP estimations

METCAP model: yoy GDP growth, 2015q3



Fuente: estimación METCAP-AIReF

