

**DISCUSSION OF:**

**“BUDGETARY STABILITY AND STRUCTURAL REFORMS IN SPAIN:  
LESSONS FROM THE RECESSION AND OPTIONS FOR THE FUTURE”**

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DIRECTORATE GENERAL ECONOMICS, STATISTICS AND RESEARCH



- **About the past:**
  - **Spanish fiscal position was close to unsustainable over 2009-2011**
  - **Therefore, fiscal consolidation was necessary**
  - **The fiscal adjustment was very gradual and slow, in an attempt to affect short-term growth as little as possible**
- **About the future**
  - **Sustainability risks are still high**
  - **High public debt has considerable costs in terms of GDP losses**
  - **Best strategy to reduce the debt to GDP ratio:**
    - **No additional fiscal consolidation but structural reforms: target potential GDP → ease public debt reduction / increase tax collection potential**

## MAIN ASSESSMENT



- **Well executed paper with clear policy conclusions**
- **I broadly agree with the assessment of the recent past...**
- **... and the prescriptions for the current juncture**

**Let me provide, though, some comments, aiming at broadening the discussion**

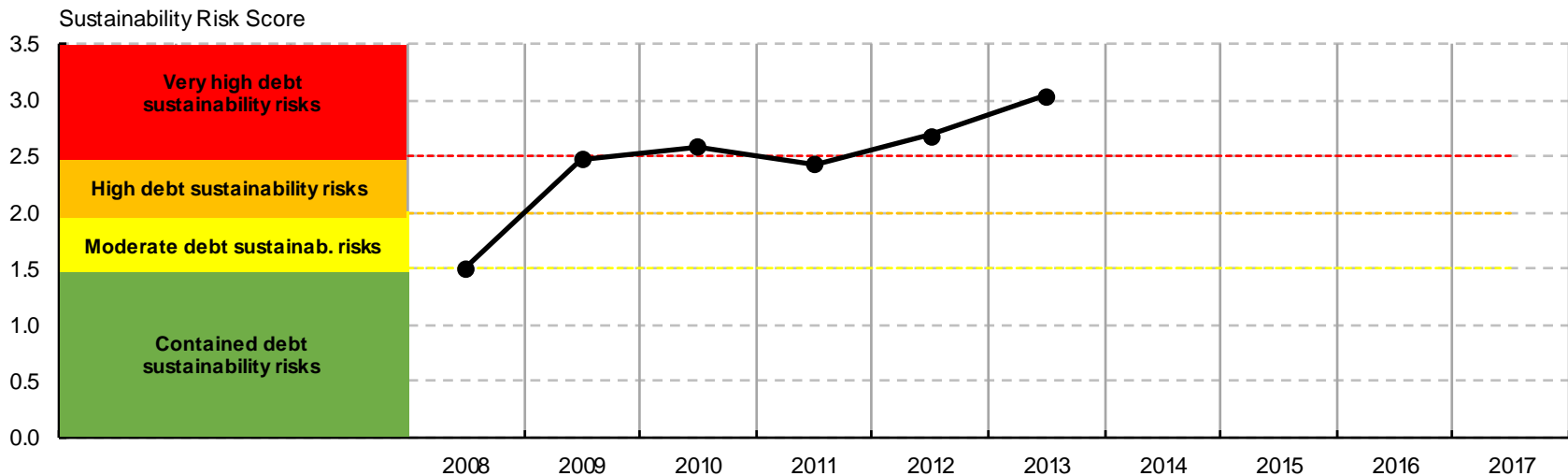
## ABOUT THE PAST



*“The evidence shows that the combination of debt and deficit balances during the recession were very close to becoming unsustainable” (Doménech and González-Páramo, 2017)*

- **Was public debt sustainability at risk?** Yes, according to real-time DSA metrics

INDICATOR OF PUBLIC DEBT SUSTAINABILITY ANALYSIS (DSA) FOR SPAIN



Source: P. Hernández de Cos, D. López and J. J. Pérez (2017): "The challenges of public debt deleveraging", Bank of Spain Occasional Paper, forthcoming

The **Sustainability Risk Score** is derived as a weighted average of scores from:

- **Deterministic DSA scenarios:** benchmark and adverse shock scenarios, defined in terms of three criteria - debt level, debt dynamics, and the risks of fiscal fatigue.
- **Other indicators, such as:** (i) stochastic DSA indicators; (ii) liquidity risk indicator; (iii) indicators related to the structure of public debt; (iv) indicators capturing individual countries' fiscal track-record and long-term fiscal position; (v) indicators capturing the potential for government contingent liabilities stemming from the private sector; (vi) risks related to the quality of institutions and competitiveness indicators.

# ABOUT THE PAST



**“With few alternatives available other than reducing the fiscal deficit” (Doménech and González-Páramo, 2017)**

- **Was fiscal consolidation a good strategy to face sustainability risks?** it depends on whether fiscal consolidation is self-defeating (increases rather than reduces the debt to GDP ratio)
  - Simple arithmetic shows that key variables are the **value of fiscal multipliers**, the starting debt level and the cyclical elasticity of the budget balance
  - Fiscal multipliers must be above normal values to lead to a self-defeating scenario after 1 year and around 1 to lead to a self-defeating scenario after 3 years (left table)

## Threshold size of Fiscal Multiplier at which Fiscal Consolidation yields adverse impact on debt-to-GDP ratio in period T

Consolidation of 3% of GDP in period T=1 (permanent)

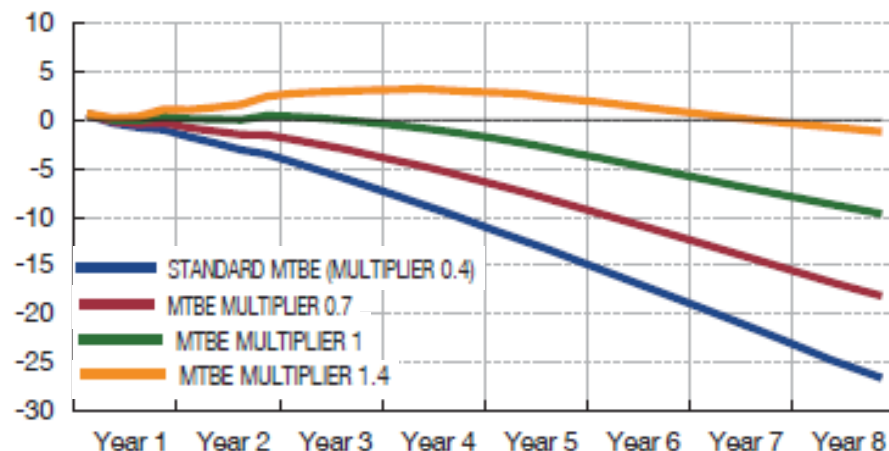
Country	Initial debt-to-GDP ratio	T = 1	T = 3	T = 5	T = 10
Spain	86.6	0.75	1.05	1.6	3.5
Cyprus	87.2	0.75	1.05	1.55	3.3
France	90	0.75	1.1	1.6	3.55
Ireland	117.1	0.65	1	1.55	3.5
Portugal	120.7	0.6	0.9	1.45	3.1
Italy	126.4	0.6	0.9	1.4	2.9
Greece	178.4	0.45	0.8	1.3	3.05

Warmedinger, Checherita-Westphal & Hernández de Cos (2013)

<https://www.ecb.europa.eu/pub/pdf/scpops/ecbop162.en.pdf>

## Public debt-to-GDP ratio response to fiscal shock under different multipliers (MTBE model for Spain)

Difference as % of GDP. Shock: mix of tax and spending instruments



Jimeno & Hernández de Cos (2013)

<https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeriadas/DocumentosOcasionales/13/Fich/do1303e.pdf>



- **Recent evidence shows that multipliers are state-dependent. In the Spanish case, Hernández de Cos and Moral-Benito (2013) find:**
  - The Spanish fiscal multiplier is larger during recessions but not so large as found by Auerbach et al (2012) for the US
  - Weak situation of public finances in Spain might cause the spending multiplier to be smaller (or even negative)

### State-Dependent Spending Cut's Multipliers for Spain

<i>Indicator Variable</i>	<i>Regime</i>	<i>One year</i>	<i>Two years</i>
GDP Growth	Expansion	-0.25*	-0.26*
GDP Growth	Recession	-0.67*	-0.73*
Change in Gross Debt	Good Fiscal Times	-0.73*	-0.31*
Change in Gross Debt	Bad Fiscal Times	-0.12	-0.16

\* denotes statistical significance at the 5% level. Cumulative multiplier estimates based on the regime switching VAR (STVAR) discussed in Auerbach and Gorodnichenko (2012a). Identification of government shocks follows BP02, i.e., Cholesky ordering with G ordered first, T second, and GDP third. Sample period is 1986Q1:2011Q4.

Hernández de Cos & Moral-Benito (2013)

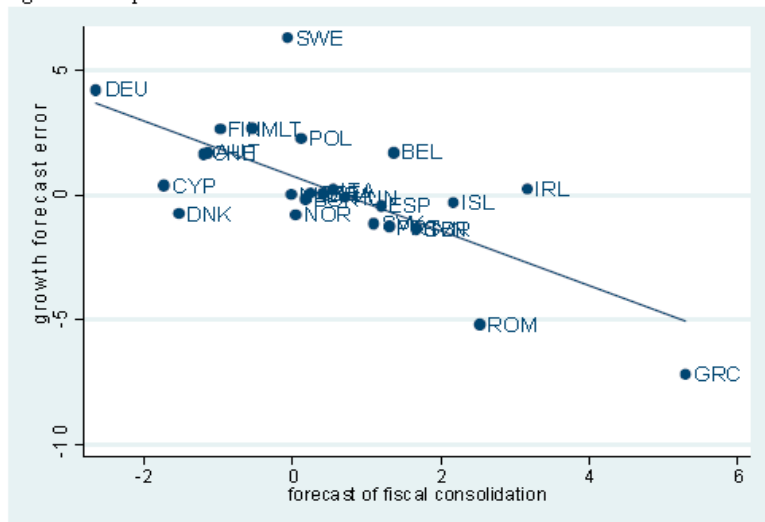
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# ABOUT THE PAST



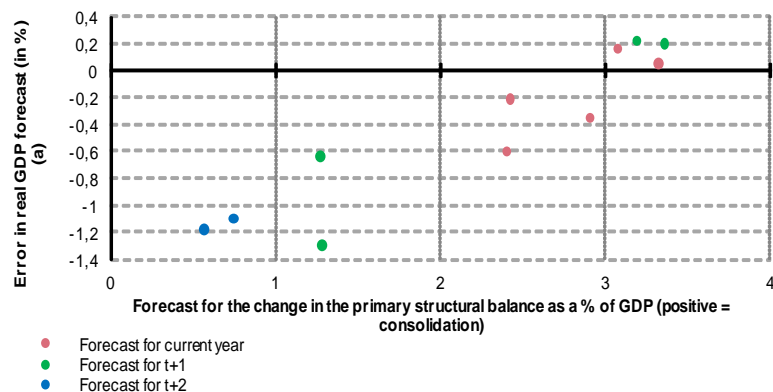
- **Analysis of GDP forecast errors at Banco de España do not point out to high values of the fiscal multipliers during the crisis (contrary to Blanchard and Leigh, 2012):**
  - BDE forecasting models: multiplier around 0.4 for a tax-expenditure shock
  - Not all forecast errors have the same sign
  - They are significantly reduced when controlling for changes in external assumptions
  - Projection errors are not negatively correlated with fiscal consolidation

Figure 1. Europe: Growth Forecast Errors vs. Fiscal Consolidation Forecasts



Note: Figure plots forecast error for real GDP growth in 2010 and 2011 relative to forecasts made in the spring of 2010 on forecasts of fiscal consolidation for 2010 and 2011 made in spring of year 2010; and regression line.

## REAL GDP FORECAST ERROR AND FISCAL CONSOLIDATION: THE CASE OF SPAIN



FUENTE: Banco de España.

a. Corrected for the deviations in exogenous assumptions related to the external sector, interest rates and fiscal consolidation.

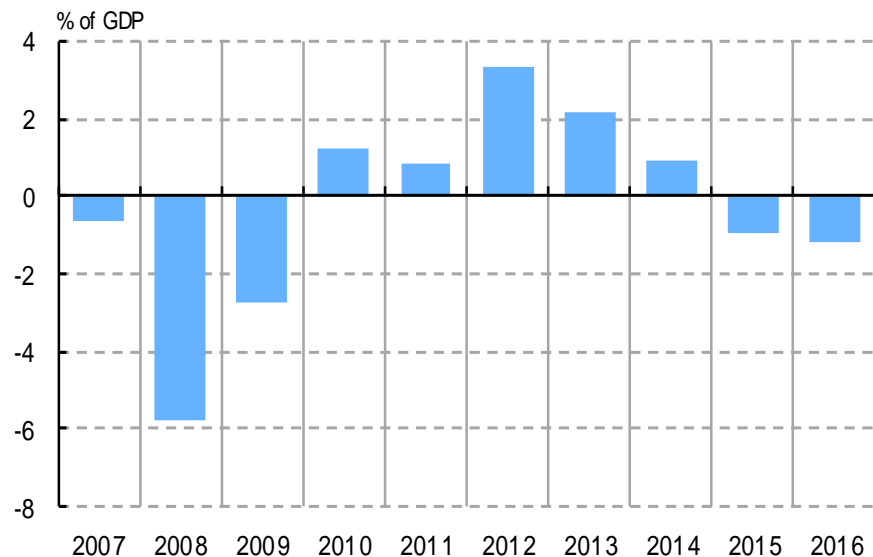
# ABOUT THE PAST



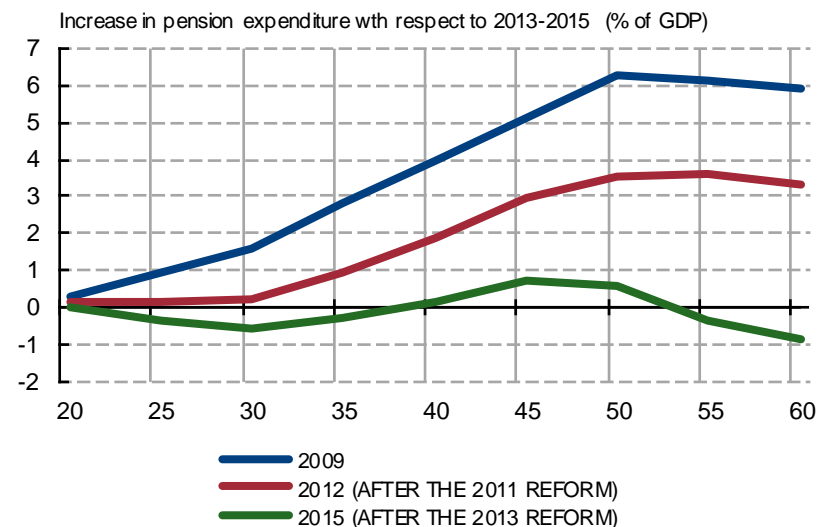
***“The fiscal adjustment was very gradual and slow, in an attempt to affect short-term growth as little as possible” (Doménech and González-Páramo, 2017)***

- **Analysis of composition and timing of fiscal consolidation since 2010 shows:**
  - The decline of the ratio of public investment over GDP explains around half of the reduction in the deficit to GDP ratio (high multiplier)
  - Erratic path (i. e. expansionary fiscal policy in 2015 and 2016), significant slippages and deviations from fiscal targets and lack of detailed medium-term plans that could have reduce uncertainty
  - Although, fiscal consolidation was accompanied by important pension reforms that reduced long-term sustainability concerns (and possibly have lower short-term multipliers)

FISCAL STANCE: CHANGE IN STRUCTURAL PRIMARY BALANCE



PENSION EXPENDITURE PROJECTIONS: AGEING REPORT



Jimeno, Hernández de Cos & Ramos (2017)

<https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/PublicacionesSeridas/Documentos/Ocasionales/17/Fich/do1701e.pdf>

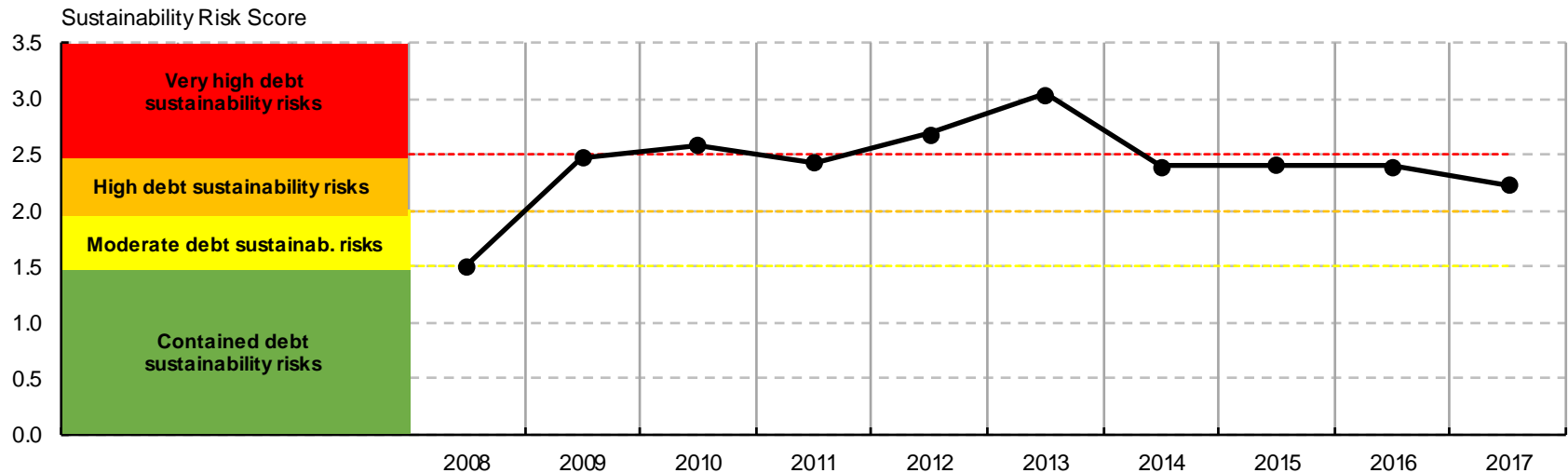




***“Although the sustainability of public finances has improved in recent years, the risks still remain high” (Doménech and González-Páramo, 2017)***

- **Are fiscal sustainability risks still high? Yes, according to real time DSA metrics**

INDICATOR OF PUBLIC DEBT SUSTAINABILITY ANALYSIS (DSA) FOR SPAIN

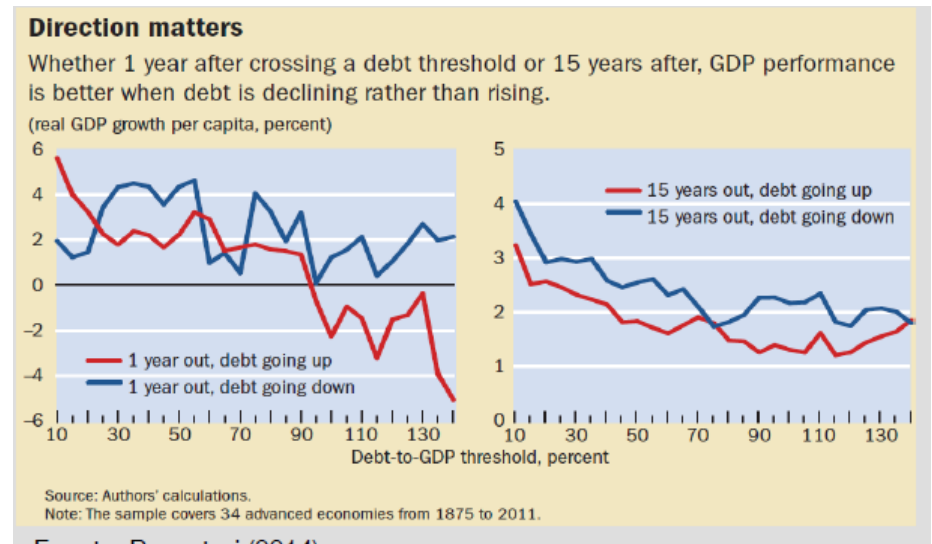


Source: P. Hernández de Cos, D. López and J. J. Pérez (2017): "The challenges of public debt deleveraging", Bank of Spain Occasional Paper, forthcoming

## ABOUT THE FUTURE

*“Public debt represents a high cost in terms of GDP per capita” (Doménech and González-Páramo, 2017)*

- **Is high public debt costly?** Yes, empirical evidence shows that high (and increasing) public debt is associated with higher interest rates and, therefore, with lower rates of private investment and growth in the medium term.
  - Requires running significant primary budget surpluses (higher tax levels/lower productive spending)
  - Reduces the room for manoeuvre available to fiscal policy to play a countercyclical role.
  - Raises the vulnerability of the economy to potential adverse reactions in investor sentiment.



Fuente: Pescatori (2014)



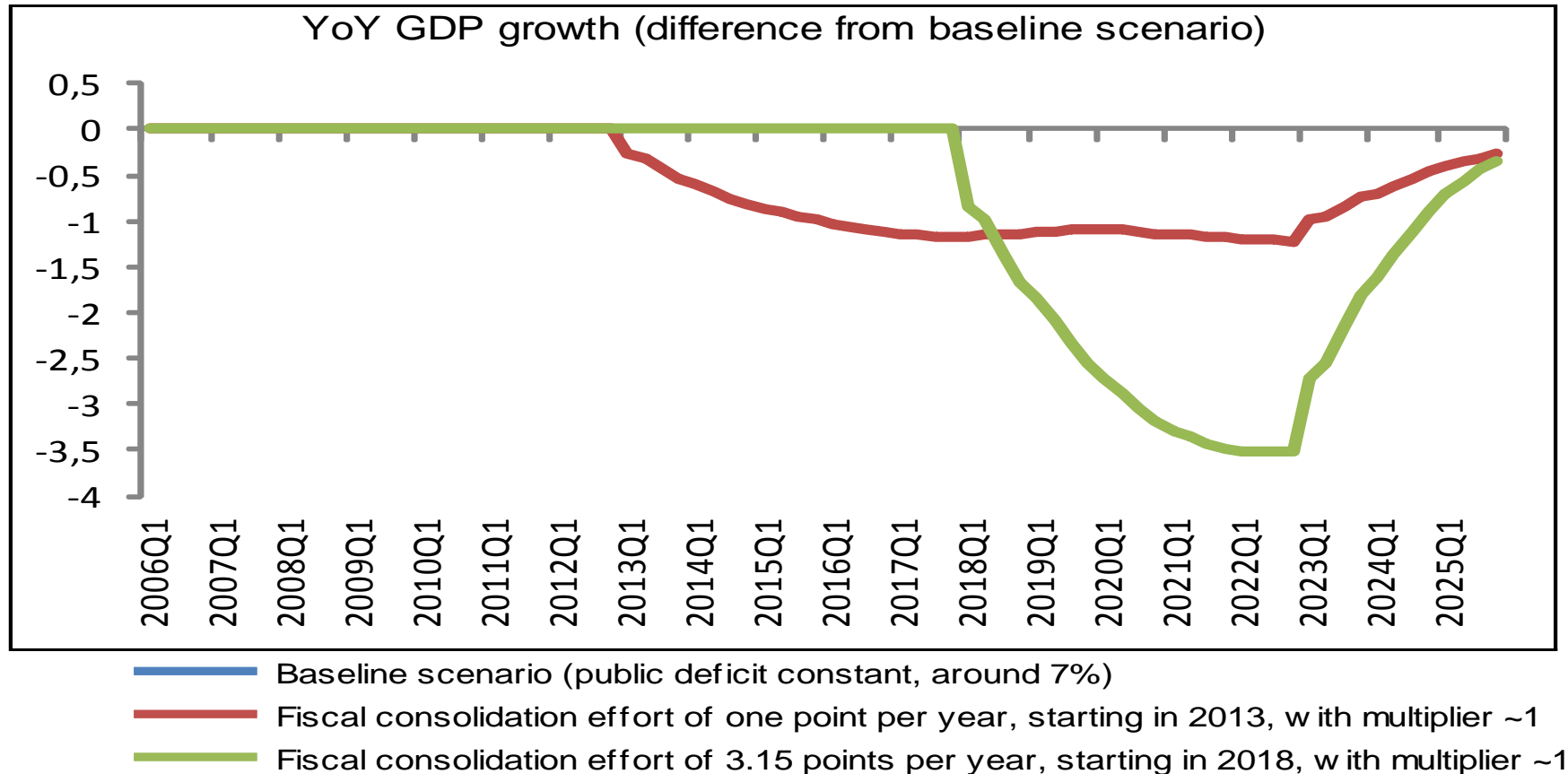
*“Simulations show that (appropriate) reforms would result in a significant increase in GDP per capita and public revenues, implying that the public debt to GDP ratio could return to pre-crisis levels without the need to increase the tax burden or cut public spending” (Doménech and González-Páramo, 2017)*

- **Could structural reforms be a full substitute of fiscal consolidation?** In principle, yes, but
  - High uncertainty on precise impact (and lags) of structural reforms on potential (observed) GDP
  - If the estimated impact not confirmed (or long lags), postponing consolidation could exacerbate fiscal sustainability concerns and increase the consolidation needs (and output costs)
  - In the current context of highly accommodative monetary policy and more positive economic outlook (lower multipliers), a combination of structural reforms and fiscal consolidation would be, in my view, a more prudent policy option.

## ABOUT THE FUTURE



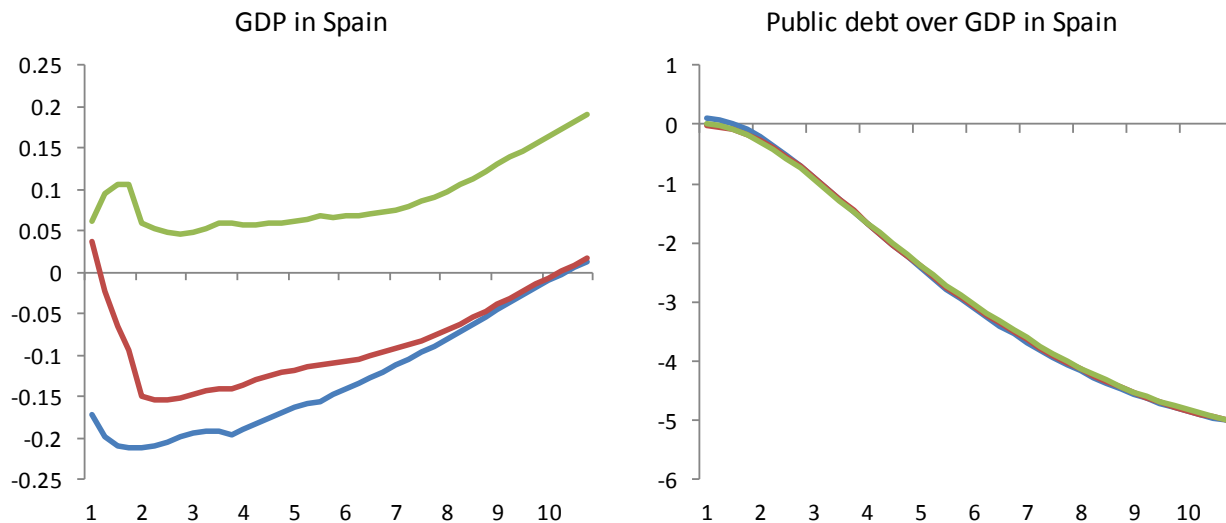
- If the estimated impact not confirmed (or long lags), postponing consolidation could exacerbate fiscal sustainability concerns and increase the consolidation needs (and output costs)





- In the current context, strong synergies between monetary policy and structural reforms that could minimize the negative effect of remaining fiscal consolidation needs on growth

## Fiscal consolidation, structural reforms, and forward guidance



### Main elements of the simulations:

- Blue line: consolidation efforts are costly in terms of GDP
- Red line: ECB forward guidance can alleviate these costs, particularly in the short run
- Green line: if we also add structural reforms in Spain, the cost can be further reduced, or completely eliminated (depending on the calibration of the shocks), but even in this case some fiscal consolidation is still needed

Marginal effects with respect to a baseline that always has deleveraging in Spain and ZLB in the euro area

The policy simulation adds:

- Fiscal consolidation in Spain
- Fiscal consolidation in Spain and ECB forward guidance
- Fiscal consolidation and structural reforms in Spain, and ECB forward guidance



- **Monetary policy has already alleviated significantly the budget constraint**

## IMPACT OF THE ECB ASSET PURCHASE PROGRAM ON PUBLIC DEFICIT 2014-16

EFFECT ON PUBLIC DEFICIT (AS A % OF GDP)	EMU	SPAIN
Direct impact on interest rate spending savings (a)	0.5	0.9
Indirect impact through macro variables (b)	0.8	0.9
<b>TOTAL</b>	<b>1.3</b>	<b>1.9</b>

a. Estimations obtained using the methodology of analysis of events, see Annual Report 2015. The effect on EMU is the result of agregating the effects for Germany, France, Italy, Spain, Holland and Belgium.

b. Estimations obtained using the methodology of box 1.2 of Annual Report 2016.

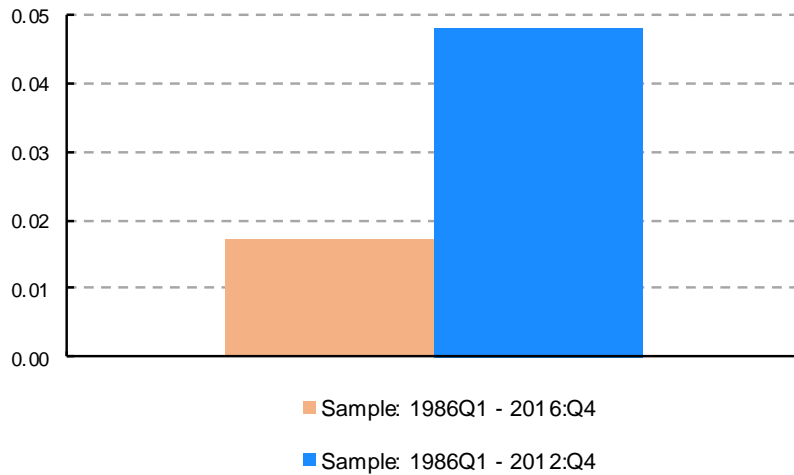
P. Burriel, F. Martí & J. J. Pérez (2017), “The impact of ECB’s unconventional monetary policy on EMU public finances”, Bank of Spain Analytical Article, [forthcoming](#)



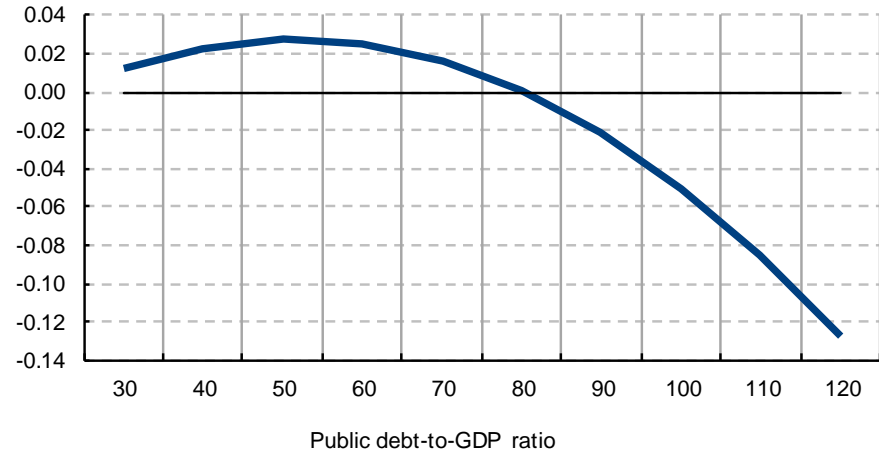
## – Important concern: “fiscal fatigue” showing “mispricing of fiscal risks”

### FISCAL REACTION FUNCTION ESTIMATES: SPAIN

1. Linear fiscal reaction function: estimate for lagged-debt parameter



2. Cubic specification of the fiscal reaction function: marginal response of the primary balance to the level of public debt



$$p_t = \phi_0 + \phi_1 b_{t-1} + \beta X_t + \varepsilon_t$$

$$p_t = \phi_0 + \phi_1 b_{t-1} + \phi_2 (b_{t-1})^2 + \phi_3 (b_{t-1})^3 + \beta X_t + \varepsilon_t$$

$p_t$  Government primary balance to GDP ratio

$b_{t-1}$  Lagged government debt-to-GDP ratio

$X_t$  Macro and fiscal control variables