

# Fiscal Rules and Financial Markets: Complements or Substitutes?

Remarks prepared for ECFIN Workshop on Fiscal Rules in Europe: Design and Enforcement  
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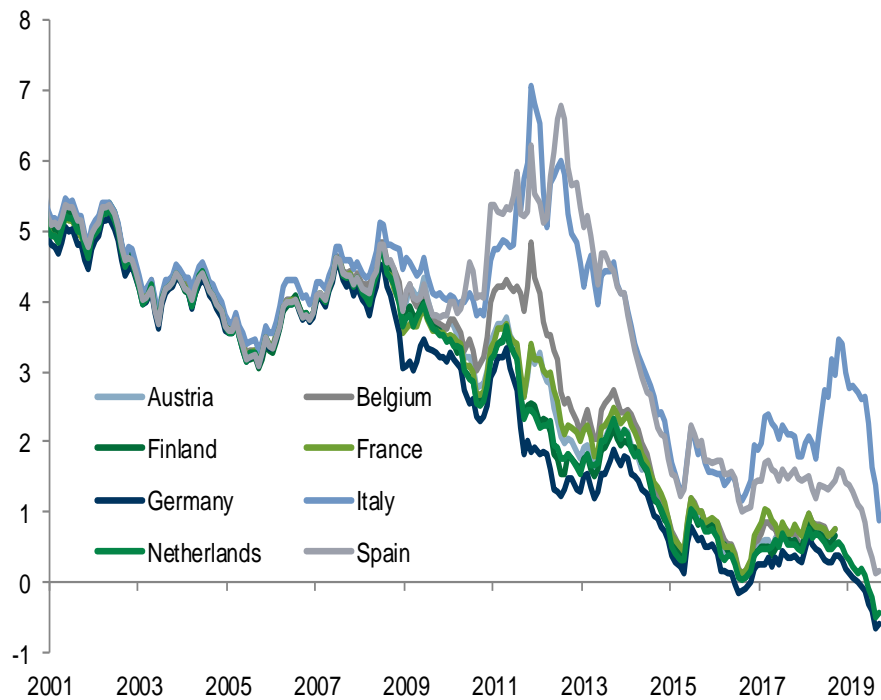
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# The Case Against Financial Markets Being the Only “Discipline” Device

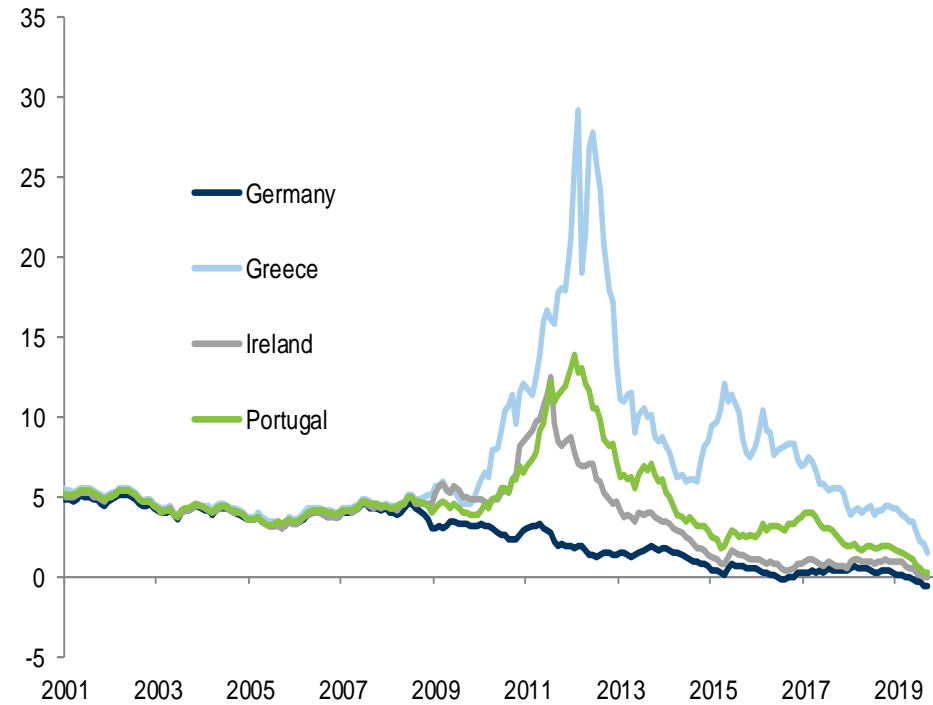
## 1. Financial markets fail to impose fiscal discipline on an ongoing basis, but...

10-year government bond yields, %



## 2. ...when they do it, the repricing of risk-premia is very sharp and costly

10-year government bond yields, %



# Question: Are Fiscal Rules An Effective Substitute/Complement to Market Discipline?

- Do Countries' Fiscal Fundamentals Matter for Financial Variables?
  - Under Which Conditions? Via What Channel?
  
- Do Fiscal Rules Have an Impact on Countries' Fiscal Fundamentals and Financial Variables?
  - When? How? Which Fiscal Rules?
  
- Are Benefits of Existing Fiscal Rules Larger Their Costs?
  
- Fiscal Rules Design, Implementation

# Do Countries' Fiscal Fundamentals Matter for Financial Variables? Data and Methodology

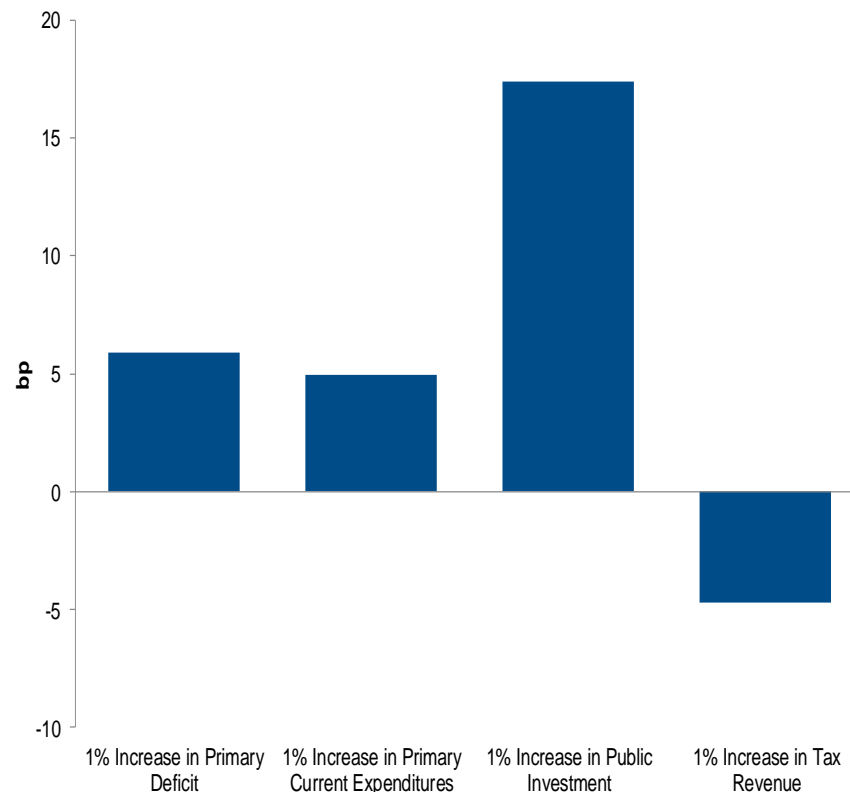
- **Data:**
  - ❑ Panel of 19 OECD countries for a maximum time span from 1960 till 2018. The countries included in the sample are: Australia, Austria, Canada, Belgium, Denmark, Germany, Finland, France, Great Britain, Ireland, Italy, The Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and US.
  - ❑ Data are from the following sources: OECD Economic Outlook Database, OECD Tax Database, Bloomberg, Global Financial Data, Haver Analytics, S&P, Moody's, Fitch.
- **Methodology:**
  - ❑ Slides 4-5: The models are estimated via dynamic GLS regressions, including country and year dummies and following the same baseline linear specifications of the paper by Ardagna S., Caselli F., Lane T., (2007) cited above. In models in which we test whether asset prices respond differently to fiscal variables at the zero bound/above the zero bound or when the output gap is positive/negative, we interact each fiscal policy variable with dummy variables that are equal to 1 in these cases and zero otherwise.
  - ❑ Slides 6-7: Fixed Effect Panel including countries and years fixed effects
  - ❑ Slides 7-10: Order Probit Specification.
- **Selected Literature:**
  - ❑ IMF, Staff Discussion Note: “Second-Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability”, April 2018.
  - ❑ Deroose S., N. Carnot, L. R. Pénch, G. Mourre: “EU fiscal rules: Root causes of its complexity”, 14 September 2018
  - ❑ Cantor R., Packer F., “Determinants and Impacts of Sovereign Credit Ratings“, FRBNY Economic Policy Review, October 1996.
  - ❑ Afonso A., Gomes P., Rother P: “Short and Long-run Determinants of Sovereign Debt Credit Ratings“, 2011,
  - ❑ International Journal of Finance and Economics, 16 (1), 1-15.
  - ❑ Afonso A., Gomes P.: “Do Fiscal Imbalances Deteriorate Sovereign Debt Ratings?“, 2011, Revue
  - ❑ Économique, 62 (6), 1123-1134.
  - ❑ Kose, M. Ayhan, Sergio Kurlat, Franziska Ohnsorge, and Naotaka Sugawara (2017). “A Cross-Country Database of Fiscal Space.” World Bank Policy Research Working Paper 8157, World Bank, Washington, DC.
  - ❑ Annual Report of the European Fiscal Board 2018
  - ❑ Anna Iara and Guntram B. Wolff, Rules and risk in the euro area: does rules-based national fiscal governance contain sovereign bond spreads?, European Commission, DG ECFIN, Economic Papers 433, December 2010
  - ❑ Balduzzi, Brancati, Brianti, Schiantarelli, Populism, Political Risk and the Economy: Lessons from Italy, December 2019, wp 989
- **Goldman Sachs Reports:**
  - ❑ European Economics Analyst: Fiscal Space Across the Euro Area, 12 March 2019
  - ❑ European Economics Analyst: €@XX — Fiscal rules performance, 31 December 2018
  - ❑ European Economics Analyst: Rating sovereigns: More upgrades on the horizon, 16 March 2018
  - ❑ Global Markets Analyst: How to Trade Fiscal Expansions, 3 November 2017
  - ❑ Fixed Income Monthly, Forward Guidance Meets Stronger Growth, 11 September 2013

# Asset Prices, Government Deficit and Public Debt

## 1. Fiscal Policy and Financial Variables – Linear Specifications

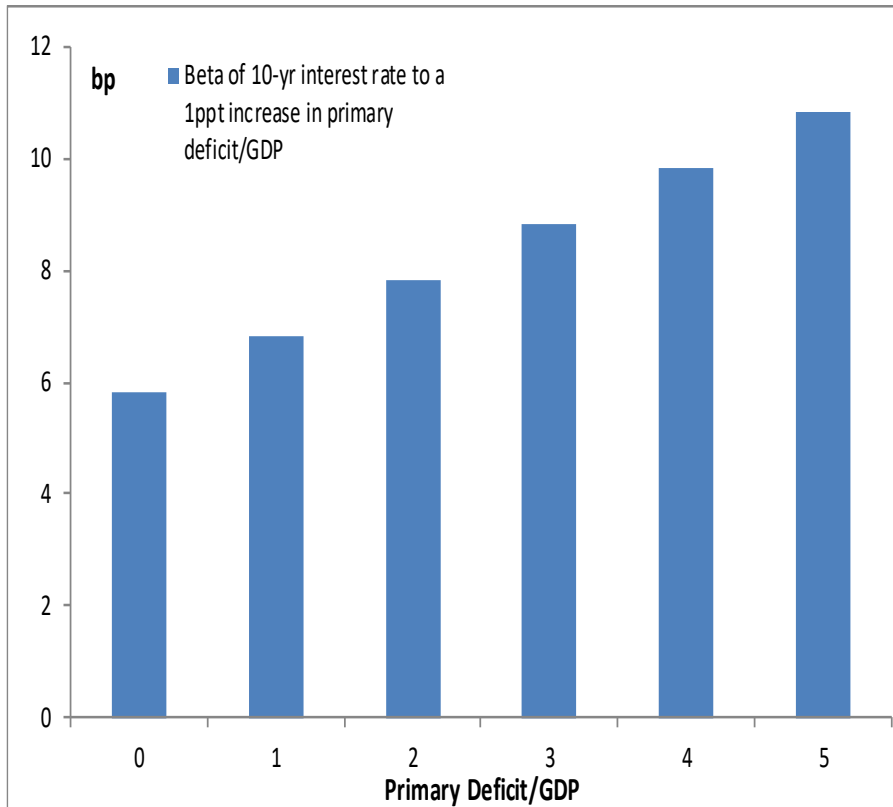
Dependent variable	(1)	(2)	(3)	(4)
VARIABLES	10-year interest rate	Log of nominal effective exchange rate	Log of stock market price index	10-year interest rate - 3 months interest rate
3-month interest rate	0.382844 (16.652)	0.003648 (2.369)	-0.013874 (-3.022)	
Inflation rate	0.080407 (4.305)	0.004677 (2.795)	0.011789 (2.792)	-0.010391 (-0.377)
Real GDP growth	2.288515 (1.141)	0.358442 (1.966)	2.074087 (4.007)	-2.298043 (-0.762)
Primary Deficit/GDP	7.261068 (5.760)	0.071544 (0.644)	-0.630114 (-1.715)	10.430185 (5.786)
Government Debt/GDP	0.556719 (2.709)	-0.033221 (-2.313)	-0.548270 (-8.444)	1.707705 (6.713)

## 2. Taxes, Spending and Financial Variables – Linear Specification

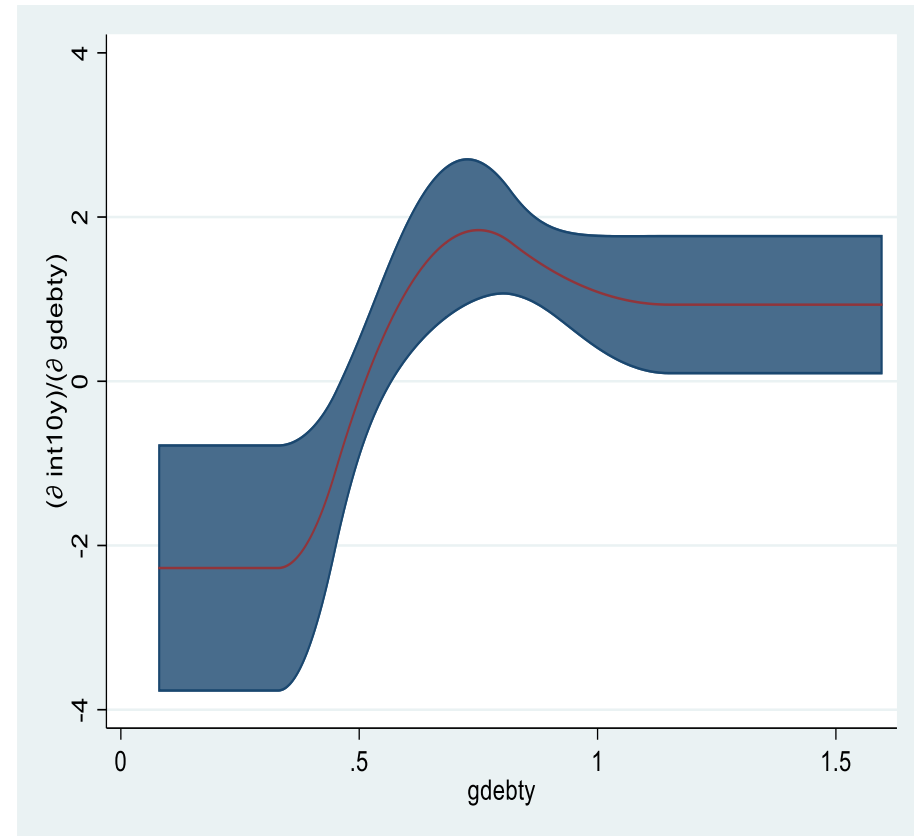


# Asset Prices, Government Deficit and Public Debt - Nonlinearities

## 1. Long-term Interest Rates and Primary Deficit– Non Linear Specification



## 2. Long-term Interest Rates and Public Debt – Non Linear Specification

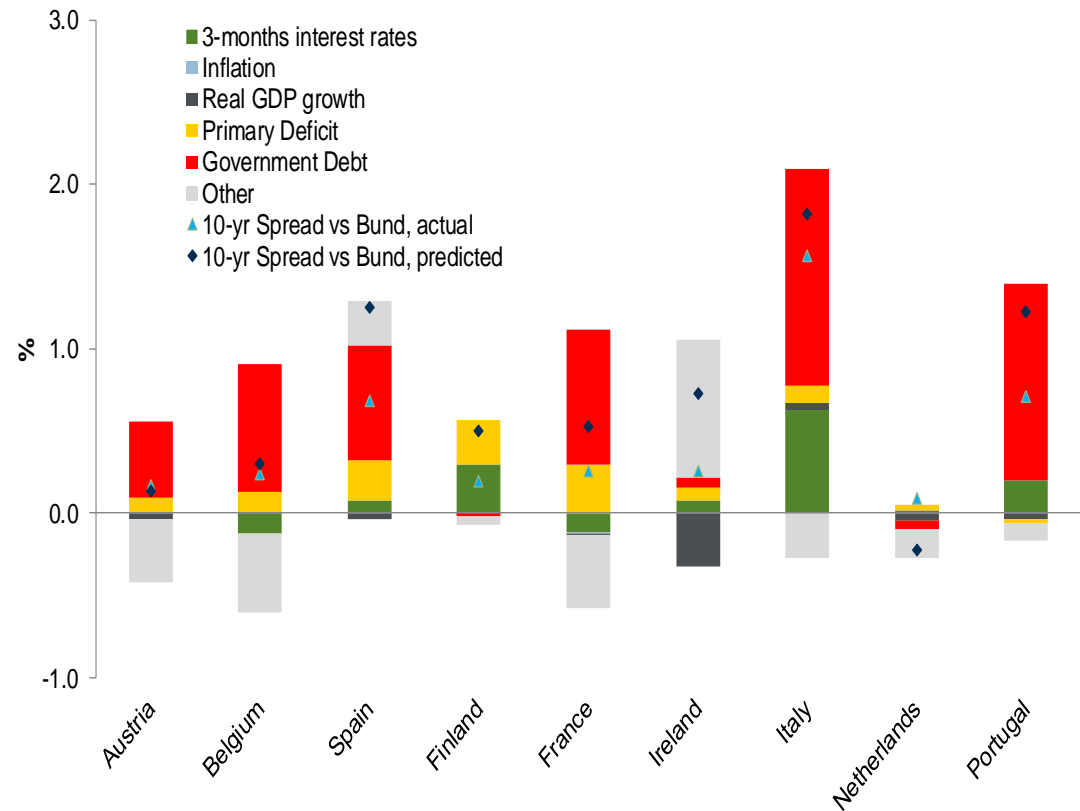


# EMU Spreads, Government Deficit and Public Debt

## 1. Long-term Interest Rate Spread to Bund and Fiscal Variables

Dependent variable	
VARIABLES	10-year interest rate spread vs Bunds
3-month interest rate differential	0.654489 (7.842)
Inflation rate differential	0.006528 (0.120)
Real GDP growth differential	-4.760983 (-1.246)
Primary Deficit/GDP differential	8.619686 (3.891)
Government Debt/GDP differential	1.665790 (4.404)

## 2. Predicted Spread and Its Main Determinants



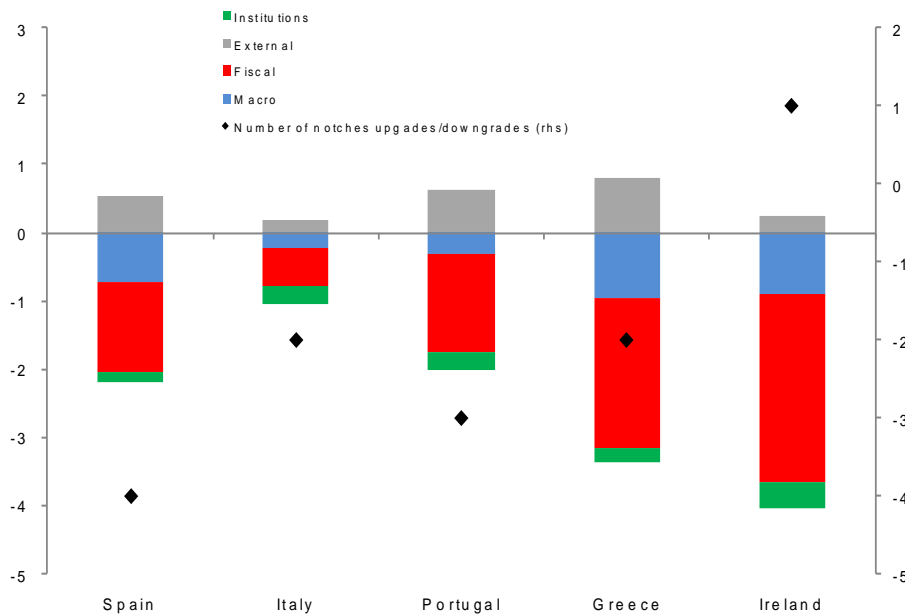
# Sovereign Ratings and Fiscal Fundamentals

Order probit effect model	(1) Standard & Poors	(2) Moody's	(3) Fitch
<b>Log (Real per Capita GDP, PPP)</b>	1.56 (4.482)	1.08 (2.288)	2.36 (4.446)
<b>Real GDP growth</b>	0.01 (0.006)	-1.68 (-0.601)	-6.03 (-2.684)
<b>Unemployment rate</b>	-0.04 (-1.923)	-0.10 (-5.258)	-0.05 (-2.260)
<b>Inflation rate</b>	-0.12 (-2.712)	-0.04 (-0.866)	-0.07 (-0.850)
<b>Gov. Debt/GDP</b>	-3.35 (-13.450)	-2.56 (-10.553)	-3.93 (-11.584)
<b>Gov. fiscal deficit net of interest rate expense/GDP</b>	-2.83 (-1.304)	-4.21 (-2.201)	-7.62 (-2.824)
<b>Net international investment position/GDP</b>	0.83 (4.550)	0.25 (0.982)	0.94 (3.521)
<b>Current account balance/GDP</b>	0.08 (4.009)	0.05 (2.548)	0.07 (3.241)
<b>Index measuring number of seats held in the Parliament by parties supporting the government</b>	0.57 (2.355)	0.46 (1.762)	1.15 (3.592)
<b>Index measuring the rule of law, the quality of the regulatory system and the effectiveness of government</b>	0.13	0.28	0.18

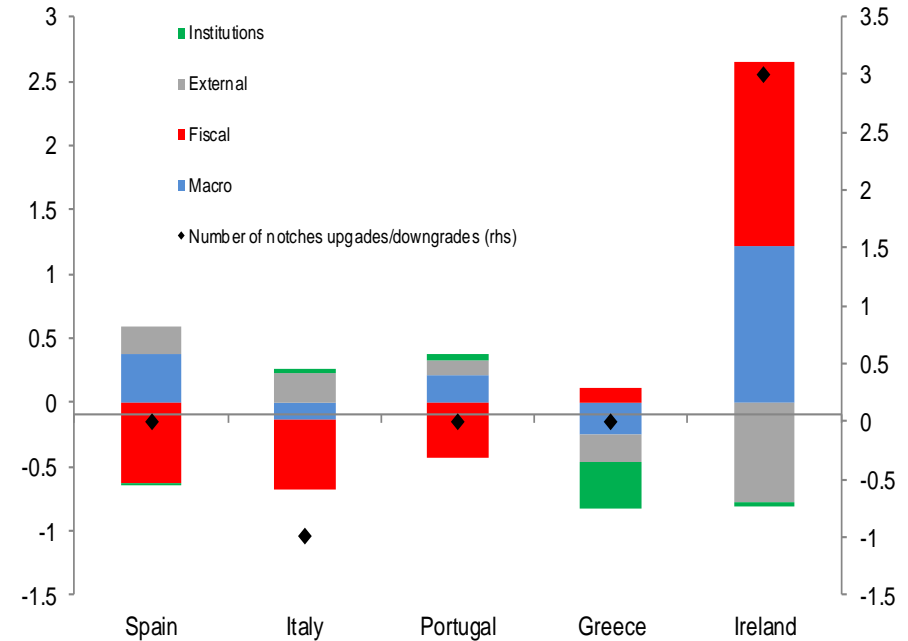


# Sovereign Ratings and Fiscal Fundamentals

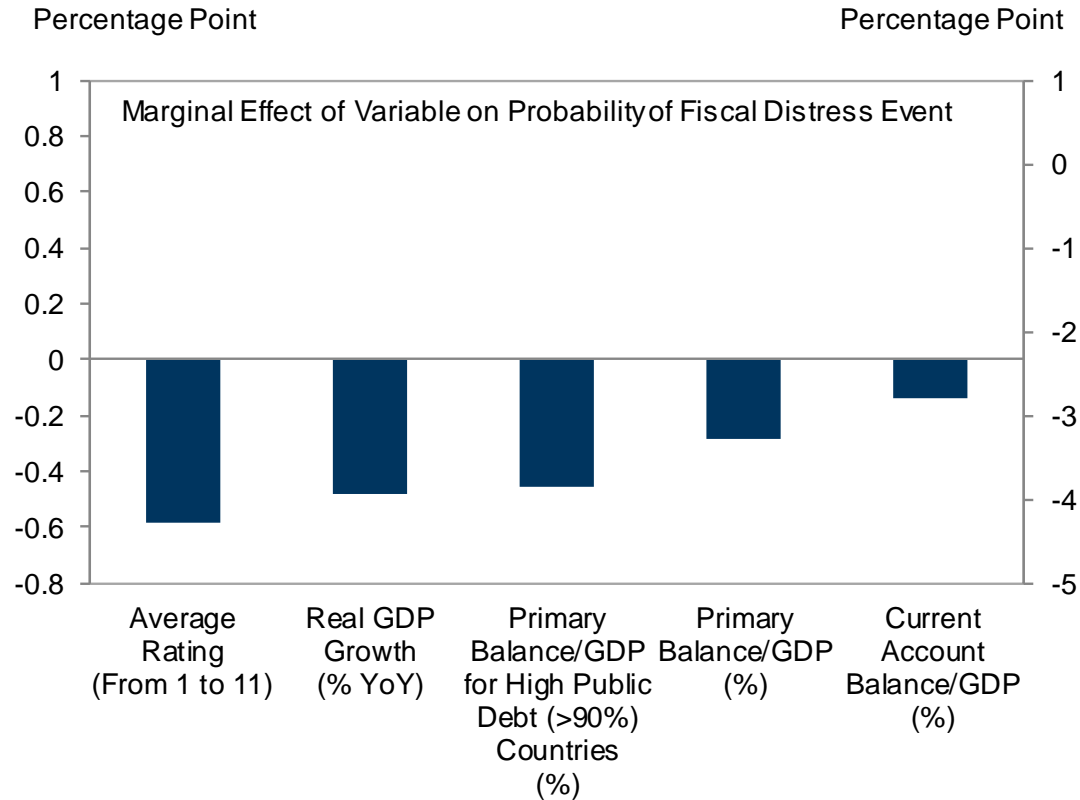
## 1. Fiscal Factors and Ratings Agencies' Downgrades in 2008-2012



## 2. Fiscal Factors and Ratings Agencies' Upgrades in 2012-2016



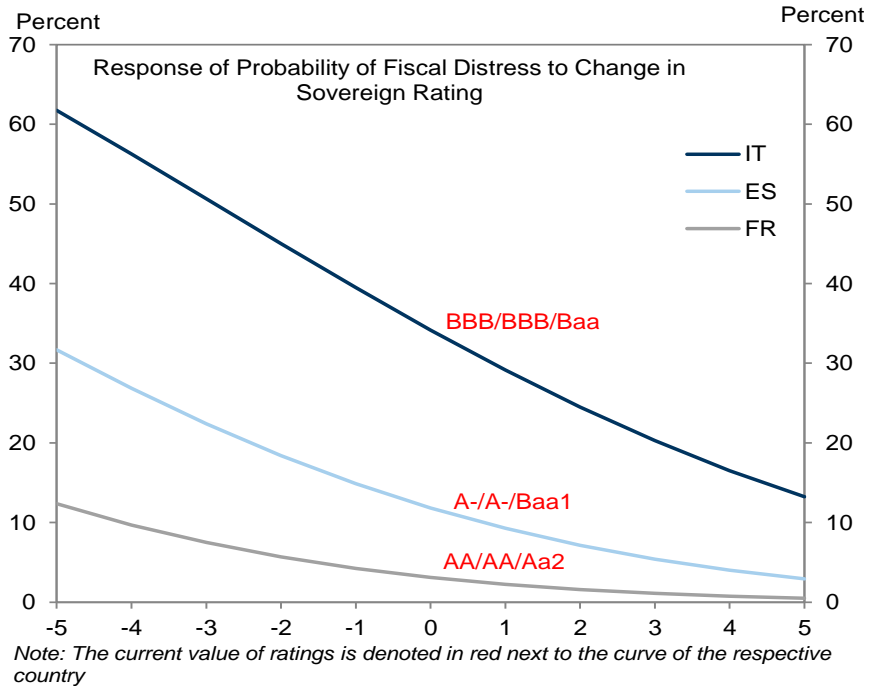
## 1. Determinants of Fiscal Space



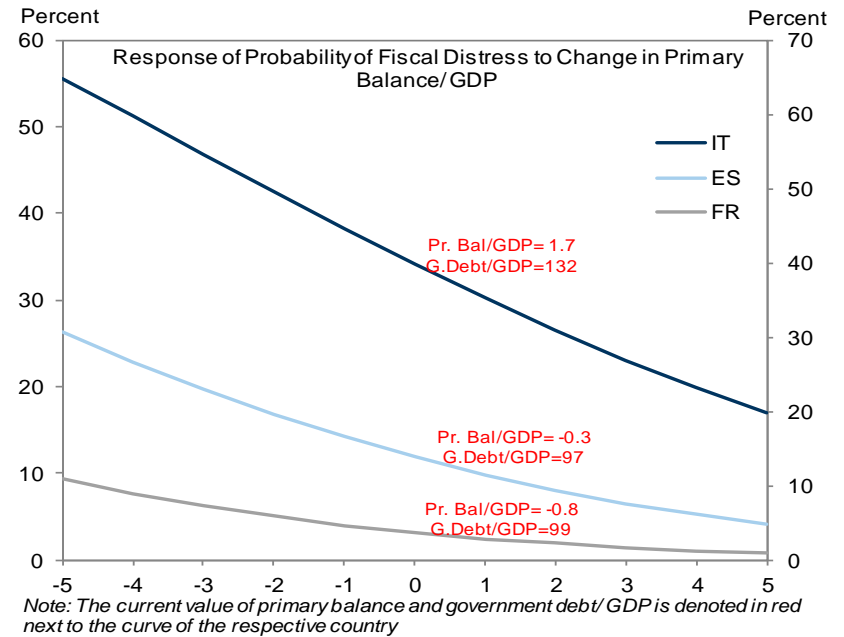
*Note: The Marginal Effect of a 1 unit change in government effectiveness (not shown here but in table 10) is -4pp. The index ranges from 1 to 7.*

# Fiscal Distress, Sovereign Ratings and Fiscal Variables

## 1. Fiscal Distress in Countries with Different Sovereign Credit Ratings

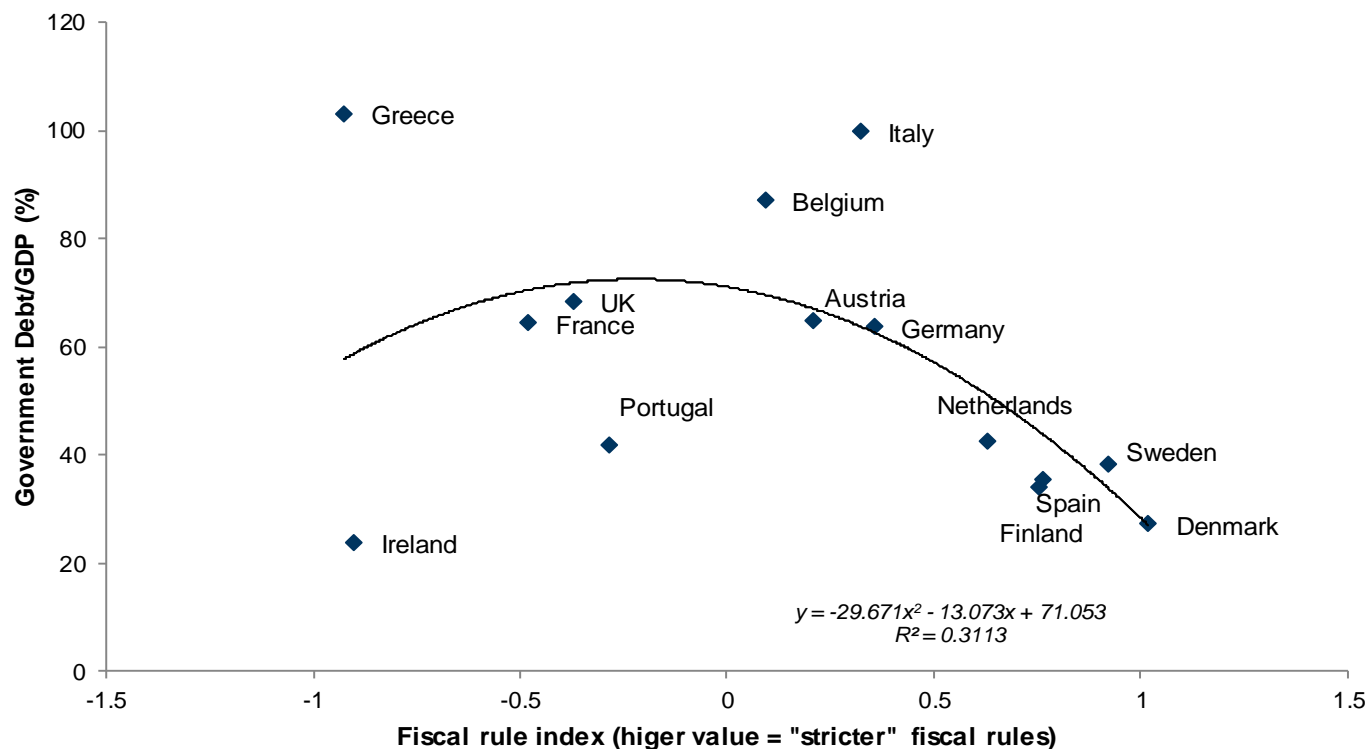


## 2. Fiscal Expansions/Contractions and Fiscal Distress



# Did European Fiscal Rules Foster Sound Fiscal Policies?

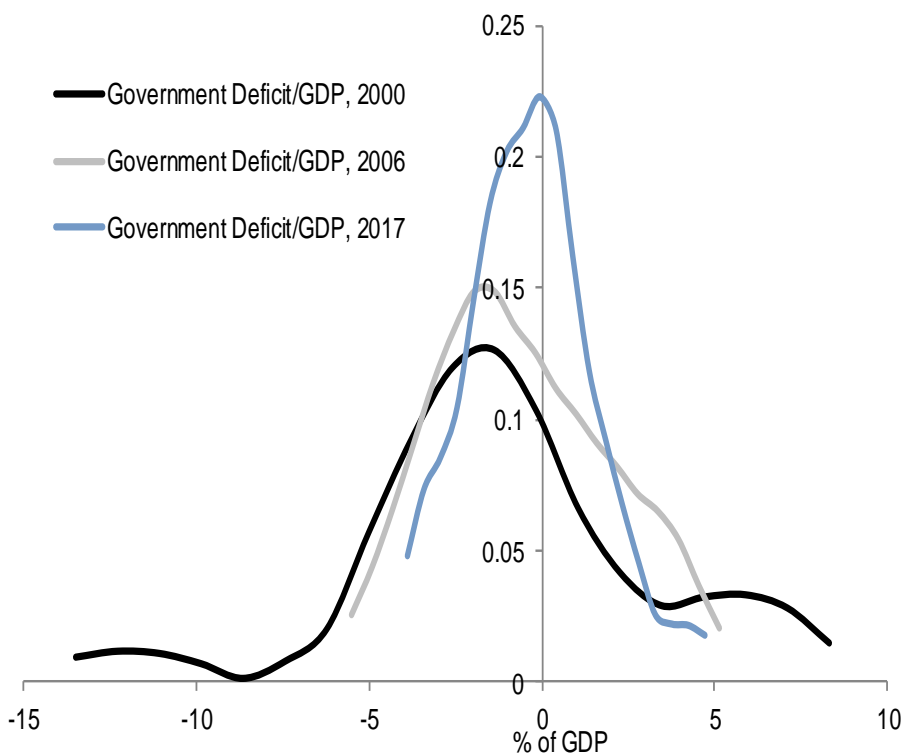
A majority of EU countries with more stringent fiscal rules had sounder public finances at the onset of the global financial crisis



# Did European Fiscal Rules Foster Sound Fiscal Policies?

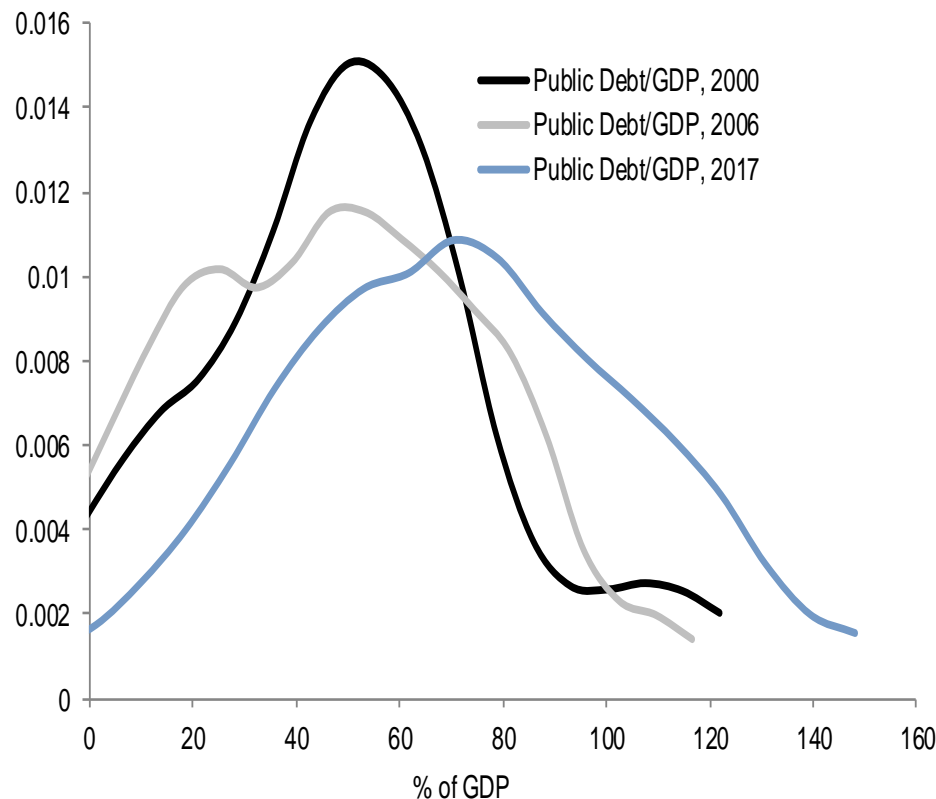
## 1. Numerical fiscal rules have been only partially successful at...

Kernel density estimates of European countries public debt- to GDP ratios (%), Greece excluded



## 2. ...improving fiscal sustainability in the Euro area

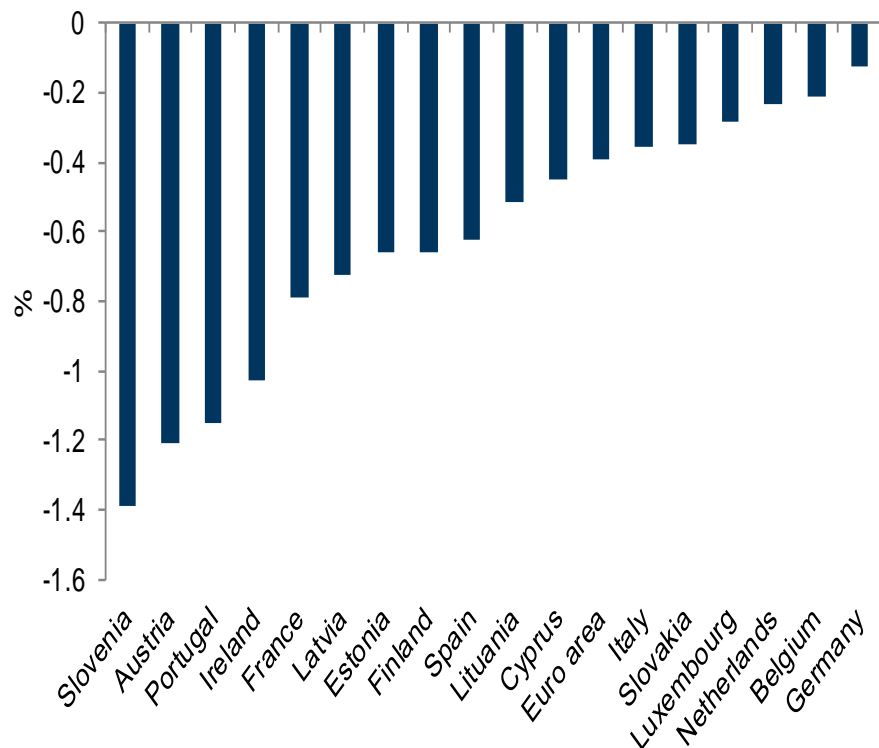
Kernel density estimates of European countries public debt- to GDP ratios (%), Greece excluded



# European Fiscal Rules and Interest Rates

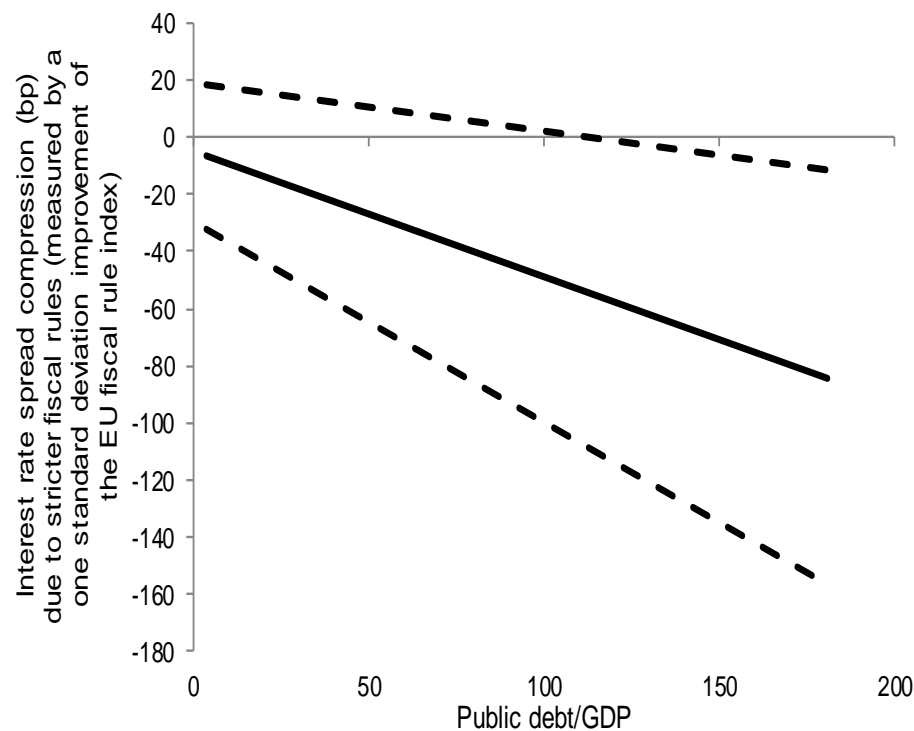
## 1. Countries with stricter fiscal rules experience tighter spreads to German Bunds

Coefficient measuring the % effect of a one-standard deviation improvement in the fiscal rule index on spreads between 10-year government bond yields of countries on the x-axis and 10-year German Bunds yield



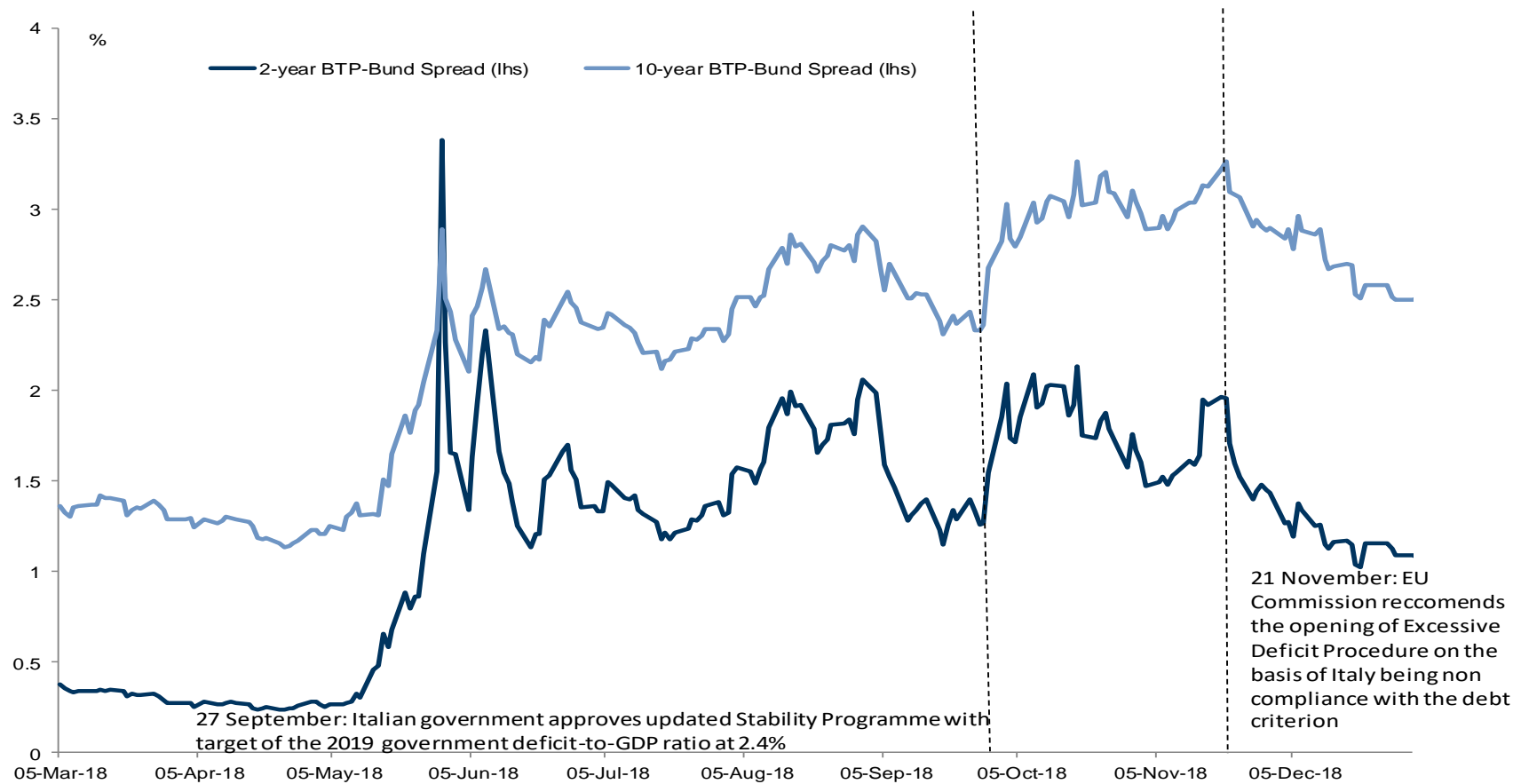
## 2. Stricter fiscal rules are particularly advantageous in terms of tighter spreads to Bunds, for high debt countries

Coefficient (and 1-standard error band) measuring the impact of a one-standard deviation improvement in the fiscal rule index on 10-year government bond spreads to German Bund of countries with different levels of public debt-to-GDP ratio



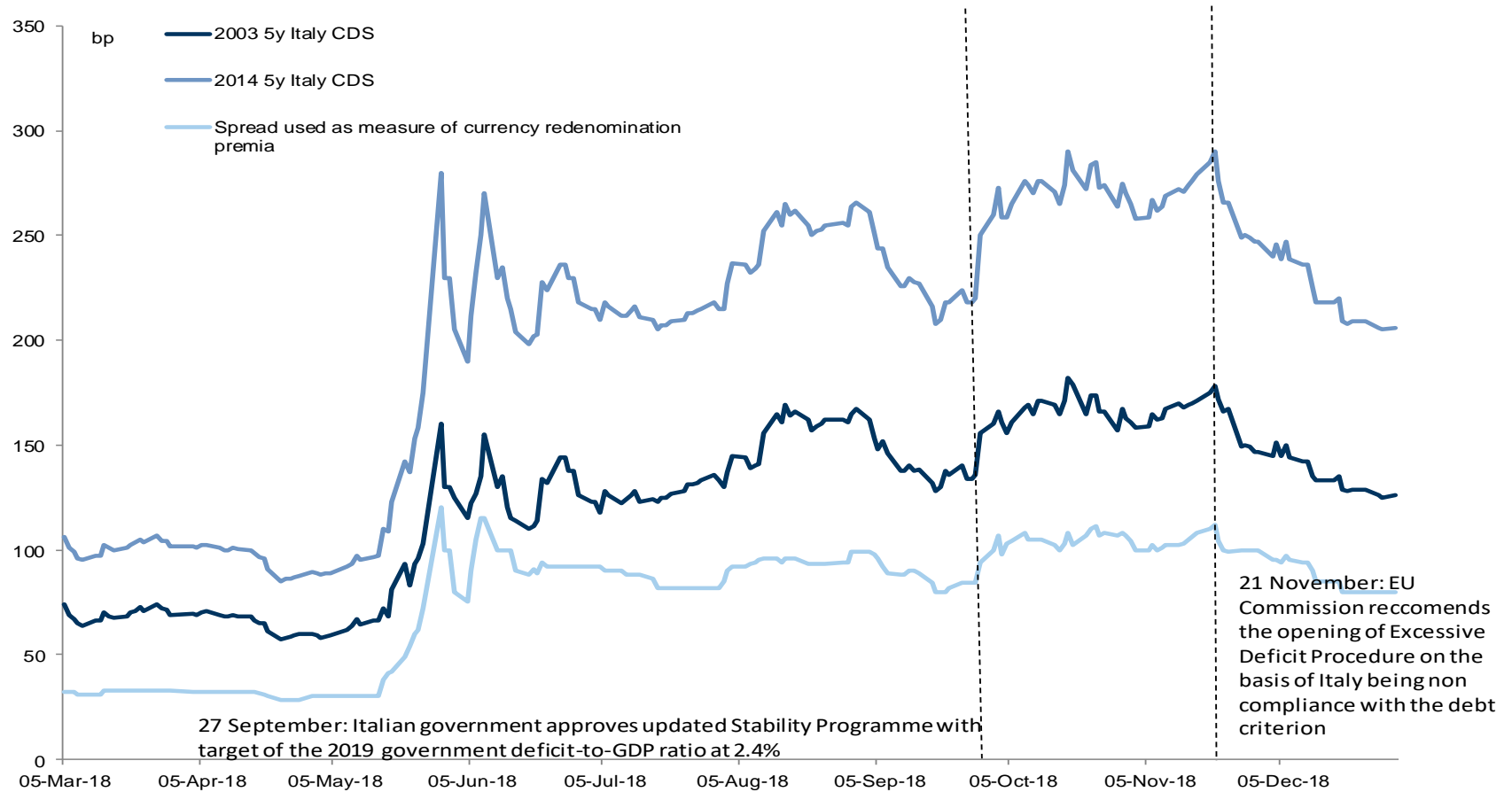
# European Fiscal Rules and BTP-Bund Spread

## 1. EMU Fiscal rules and BTP-Bund Spreads



# European Fiscal Rules and Italian Sovereign and Banks' CDS

## 1. EMU Fiscal rules and Italian 2014 and 2003 CDS

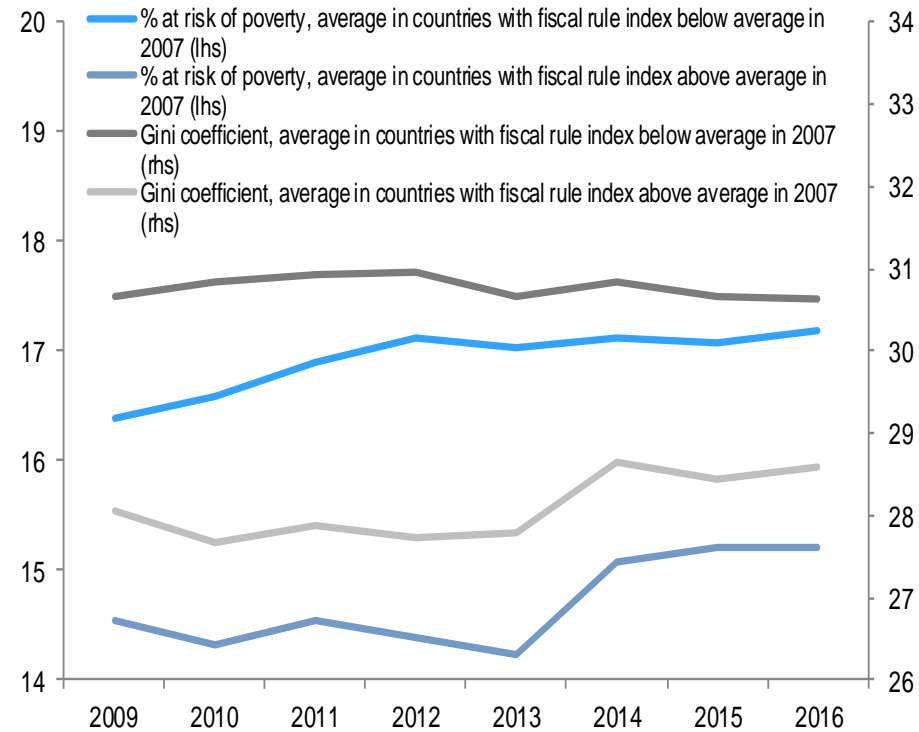
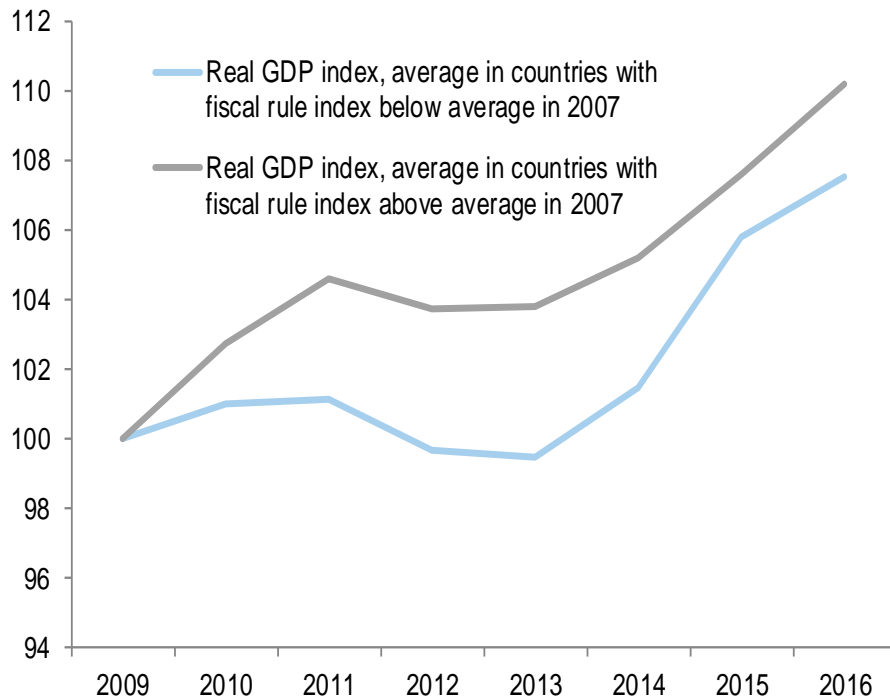




# Fiscal Rules Costs: European Fiscal Rules, Growth and Inequality

**1. Countries that showed greater adherence to EU fiscal rules through the crisis have also experienced a more rapid recovery after the European sovereign crisis**

**2. Countries with tighter fiscal rules are also countries with less inequality and a lower percentage of the population at risk of poverty**



- Fiscal fundamentals affect financial conditions, in particular by affecting long-term interest rates
- There is evidence of non-linearities: in countries with “worse” fiscal conditions, additional fiscal easing has a larger impact on long-term interest rates
- Fiscal fundamentals are an important determinants of credit ratings’ decisions.
- Interest rates and fiscal risk premia increase more large in response to fiscal easing in countries with weaker fiscal fundamentals and lower sovereign ratings.
- Countries with stricter fiscal rules also have more solid fiscal fundamentals. More work needed to establish causality.
- Fiscal rules are more effective at reducing interest rates spreads in high debt countries.
- More research needed to identify costs of fiscal rules.
- Existing evidence point us to conclude that fiscal rules are effective at complementing market discipline and that market discipline cannot be the only discipline device.

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# Important Information

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# Important Information

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The following table provides an example of the effect of management and incentive fees on returns. The magnitude of the difference between gross-of fee and net-of-fee returns will depend on a variety of factors, and the example has been simplified.

Period	Gross Return	Net Return	Differential
1 year	6.17%	4.61%	1.56%
2 years	12.72%	9.43%	3.29%
10 years	81.94%	56.89%	25.05%

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