

# **The European fiscal framework: can it ensure debt sustainability and adequate fiscal stabilisation?**

Zsolt Darvas, Bruegel

Based on a joint work with Grégory Claeys and Silvia Merler, with excellent research assistance by Alvaro Leandro

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# Motivation

- Most **European countries**, and in particular euro-area countries, have been **hit harder by the crisis** than other advanced countries and the recent recovery is weaker
- Since the intensification of the Greek crisis in early 2010, European economic **policy focused strongly on fiscal consolidation**
- Many pacts (6-pack, Euro-plus pact, Fiscal Compact, 2-pack) aimed **stronger fiscal rules, institutions and sanctions** in Europe
- **Has the European fiscal framework played a role** in the weak economic performance of Europe?
- Can the European fiscal framework **ensure debt sustainability and adequate fiscal stabilisation?**

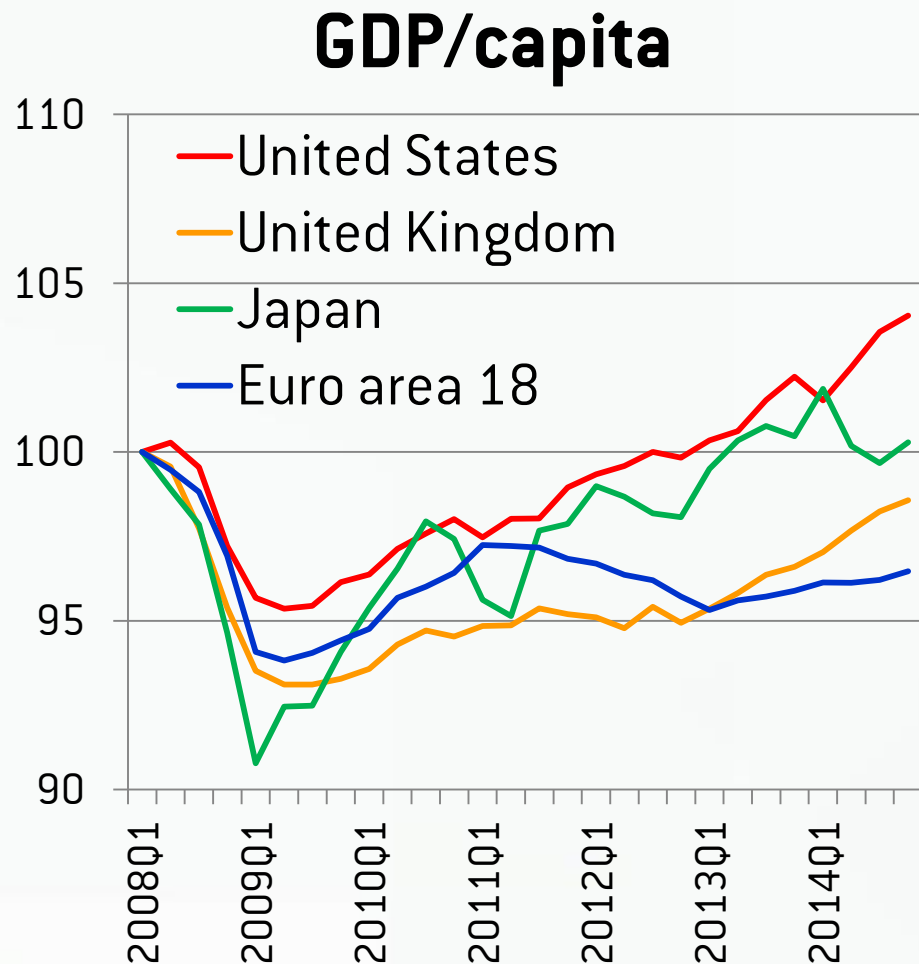
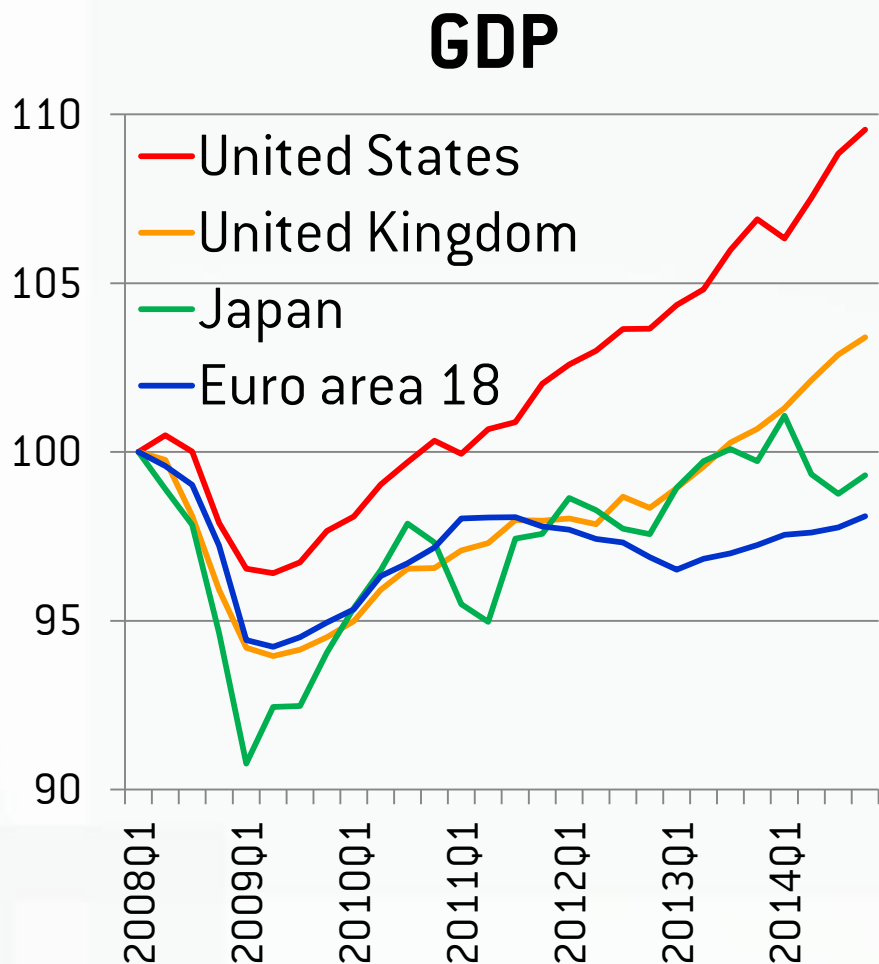
# Outline

1. Economic and fiscal developments
2. Regressions: how did fiscal stabilisation work in 2000-07 and 2008-14 in Europe and elsewhere?
3. Some conceptual issues concerning fiscal frameworks
4. Sketch of the European fiscal framework
5. Problems in estimating the structural budget balance
6. Some numerical simulations to assess the impact of EU fiscal rules on debt dynamics and cyclical stabilisation
7. Conclusions

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# GDP and GDP per capita (2008Q1=100), 2008Q1-2014Q4

*Double dip and weak recovery in the Euro area; stronger elsewhere*

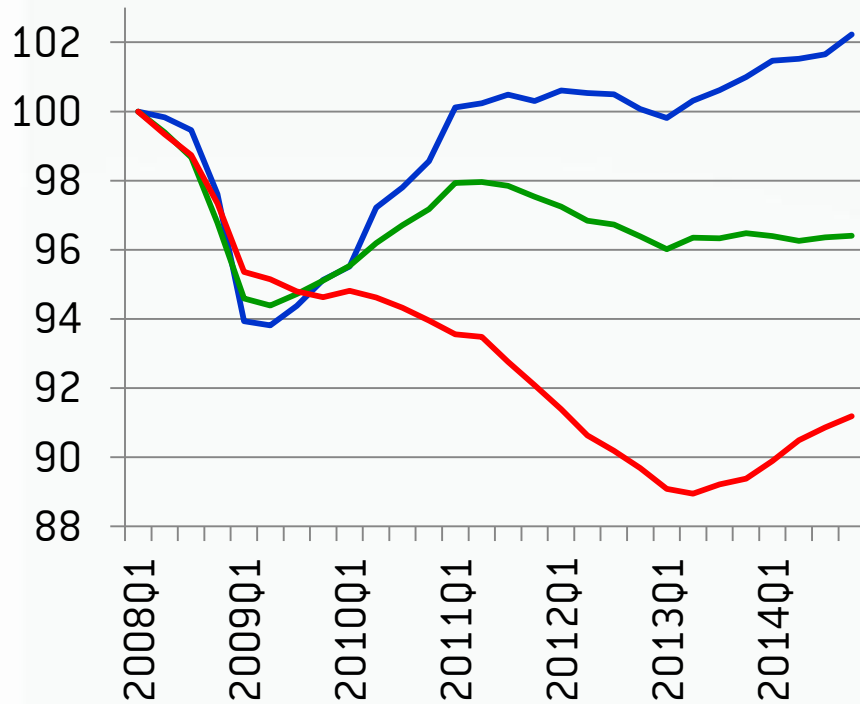


Source: calculation using data from Eurostat, OECD and IMF

# GDP and GDP per capita (2008Q1=100), 2008Q1-2014Q4

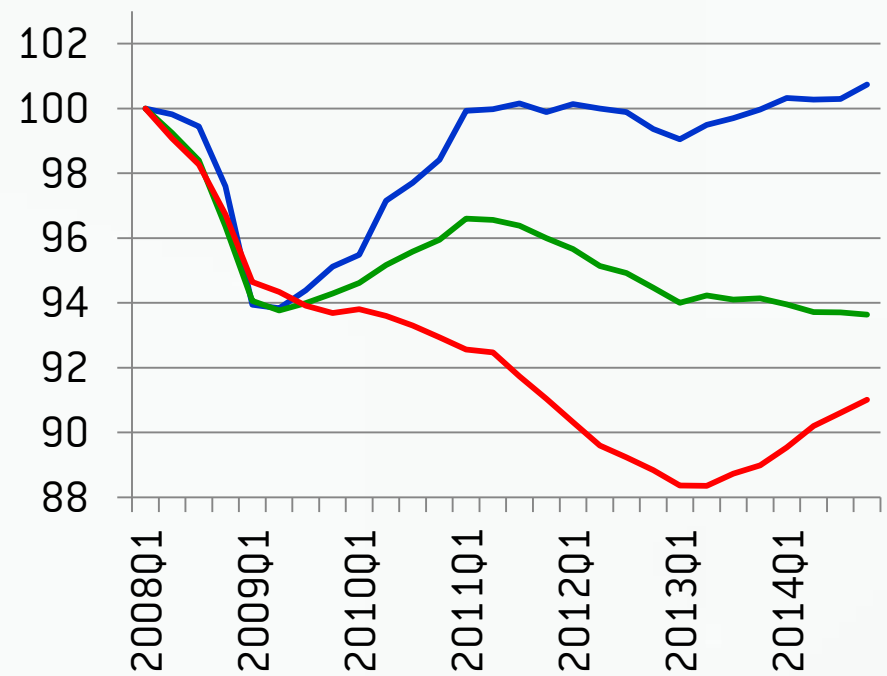
*Heterogeneous euro area: CORE not doing well, MID stagnates; PERIPHERY recovers from low level*

## Euro-area GDP



- Core (AT, BE, FI, DE, NL)
- Mid (FR, IT)
- Periphery (GR, IE, PT, ES)

## Euro-area GDP/capita



- Core (AT, BE, FI, DE, NL)
- Mid (FR, IT)
- Periphery (GR, IE, PT, ES)

Source: calculation using data from Eurostat, OECD and IMF

# Why was Europe hit harder?

*Policy errors and structural weaknesses reinforced each other*

- **Macro**

- US: severe bank stress early on; restoring confidence in the banking sector; giving time to households to deleverage by fiscal expansion; huge monetary stimulus
- Europe: delayed and weak stress tests prolonged banking woes; strong focus on fiscal consolidation since 2010 when banks and the private sector wished to deleverage; some parts of Europe lost competitiveness during the pre-crisis boom; weaker monetary stimulus

- **Micro**

- Europe: less flexible economies & less cross-country adjustment capacity

- **Euro exit fears** (2010-12; renewed in 2015)

- Exit would be a catastrophe for all; fear of exit deters investment

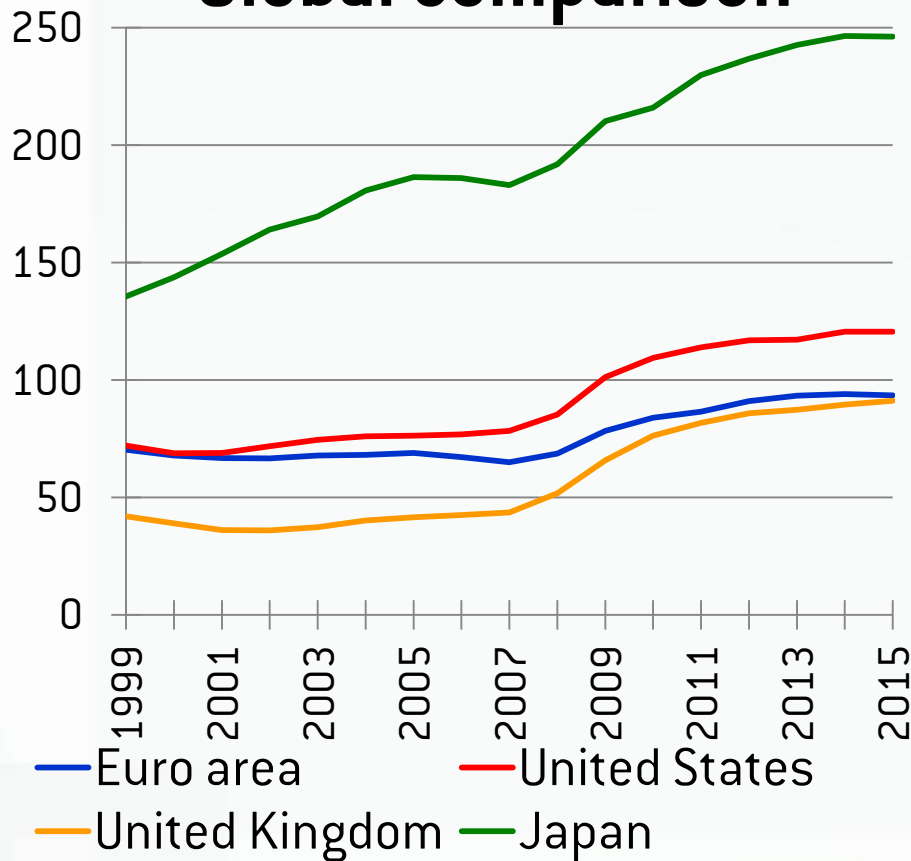
- **Executive power**

- US: strong; Europe: fragmented and inefficient

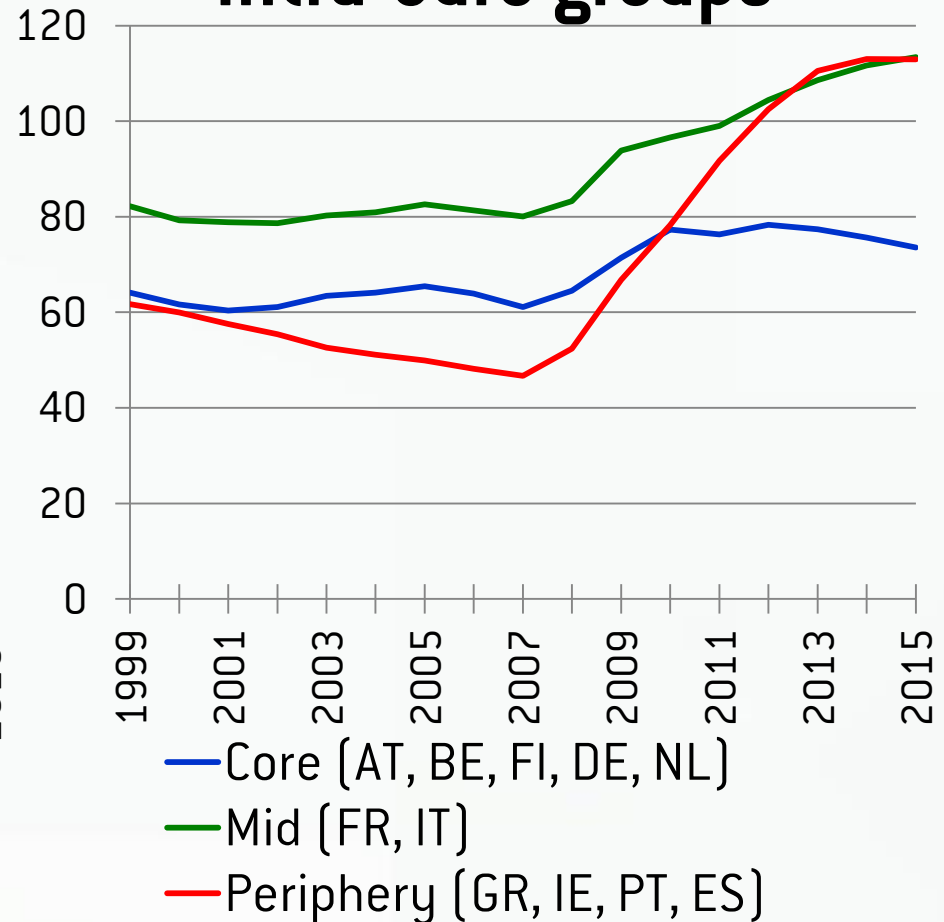
# Gross public debt (% GDP), 1999-2015

*Fiscal consolidation top priority in the EU despite lower debt*

## Global comparison



## Intra-euro groups



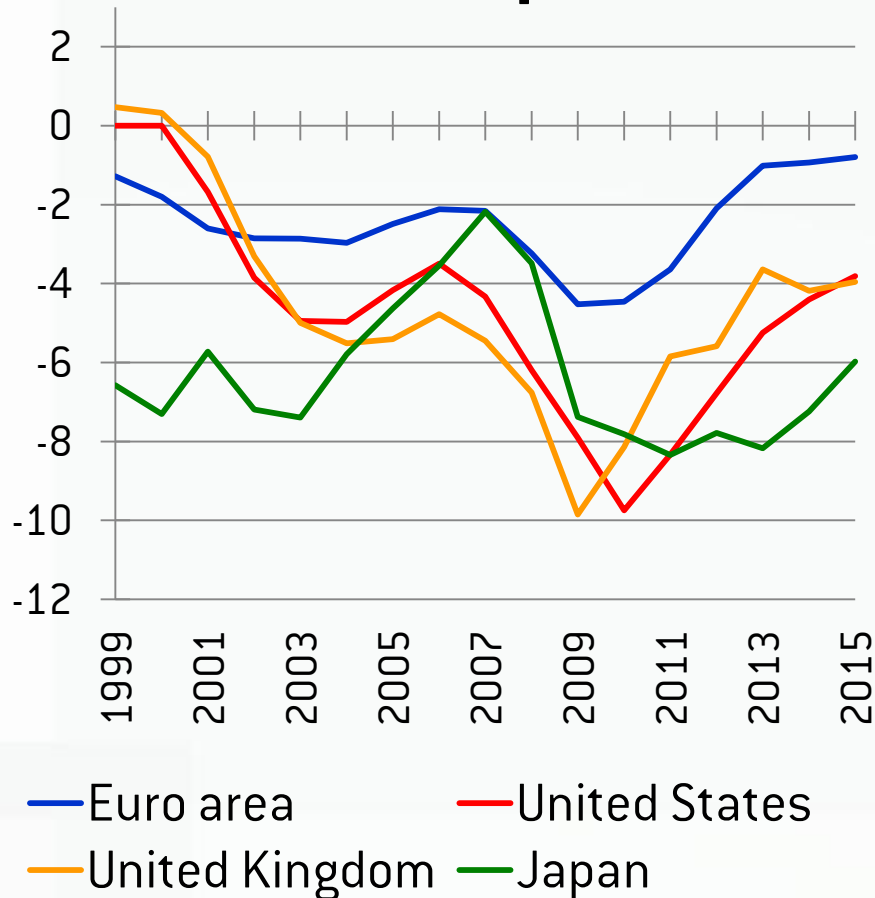
Source: IMF WEO April 2015 and [www.usgovernmentspending.com](http://www.usgovernmentspending.com). Note: US general gov debt also includes the debt of states and local governments (IMF and EU data only include federal debt)



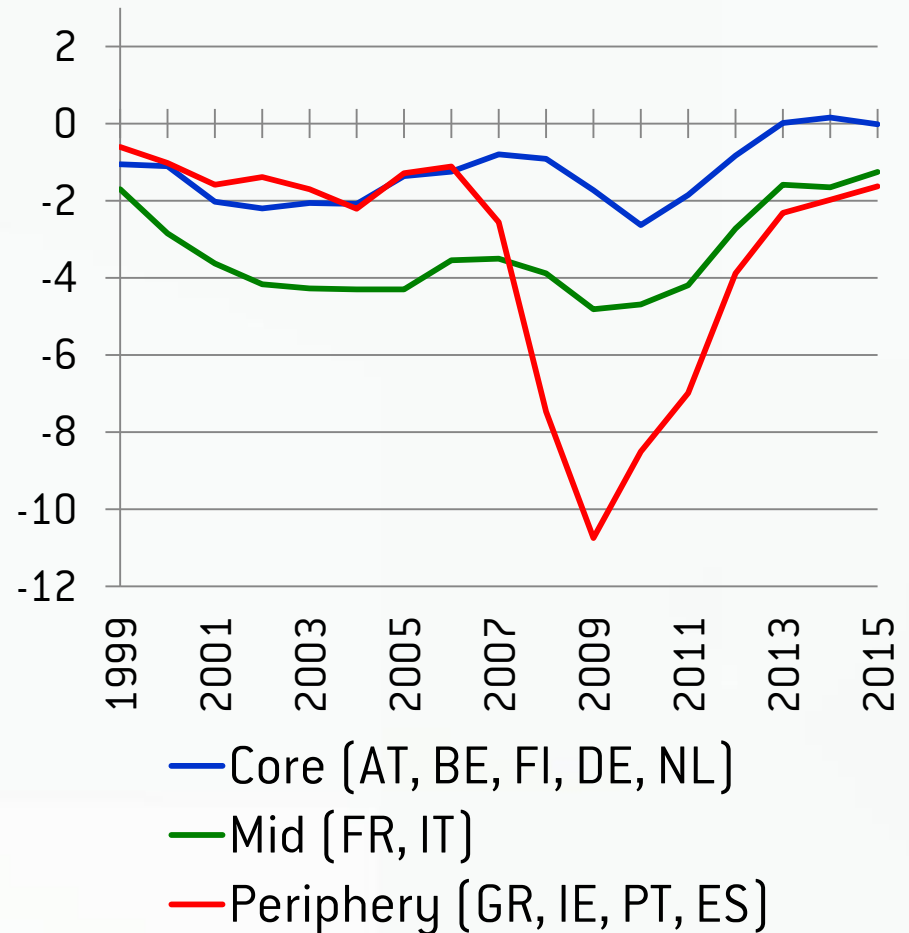
# Structural budget balance (% potential GDP), 1999-2015

*Fiscal consolidation top priority in the EU despite weak growth & lower deficit (except periphery)*

## Global comparison



## Intra-euro groups



Source: calculation using the April 2015 World Economic Outlook of the IMF.

# Public investment

*Public investment is the major victim of fiscal austerity in the EU*

**Table 1: Fiscal adjustment strategies by main expenditure categories, % change from 2009 to 2013 (in current prices)**

	GR, IE, PT, ES	Italy	10 other EU15	EU12	United States	Switzerland
Total expenditure	-9	1	9	9	9	11
Interest expenditure	48	15	15	27	89	-6
Primary expenditure	-12	-1	9	8	4	11
Compensation of employees	-13	-4	7	3	3	10
Current transfers	1	7	12	11	12	11
Other current primary expenditure	-19	-6	8	15	-13	13
Capital expenditure	-51	-24	-1	-7	20	14

Source: Table 1 of Barbiero, Francesca and Zsolt Darvas (2014) '[In sickness and in health: protecting and supporting public investment in Europe](#)', Bruegel Policy Contribution 2014/02.

Notes: **EU12** refers to the member states that joined the EU between 2004-2007. **EU15** refers to member states before 2004. **GR, IE, PT, ES** = Greece, Ireland, Portugal, Spain.

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# Regressions

- Fiscal consolidation is expected when
  - a) the budget deficit is large,
  - b) public debt is large, and
  - c) the economy is booming
  - d) There is market (or Troika) pressure.
- Motivations (a) and (b) can ensure fiscal sustainability, while (c) provides fiscal stabilisation.

$$\Delta stb_{i,t} = \beta_0 + \beta_1 stb_{i,t-1} + \beta_2 debt_{i,t-1} + \beta_3 gap_{i,t} + \beta_4 pressure_{i,t} + \varepsilon_{i,t}$$

- *stb* = the structural primary balance of country *i* at time *t* (% GDP),
- *debt* = gross public debt of country *i* at time *t* (% GDP),
- *gap* = our measure of real-time output gap (% potential output),
- *pressure* = a measure of market (or Troika) pressure.

# Which dependent variable?

- Structural balance: discretionary fiscal policy
- Nominal primary balance: automatic stabilizers
  - Bank rescue impacts the nominal primary balance. E.g. excluding Ireland from the euro area group results change substantially
- Endogeneity issues

# Country groups

- **Euro area 11:** the first 11 members of the euro area (AT BE DE ES FR FI IE IT LU NL PT)
- **Non-euro EU 8:** DK SE GB BG CZ HU PL RO
- **Non-EU advanced countries 7:** AU CA CH JP NO NZ US
- **Emerging countries 28:** AR BR CL CO EC MX MA PA PE UY CN DO HK IN ID IL JO KR MY MU PH RU SG ZA TH TN TR UA
- Greece is excluded: if not, it "destroys" EA results both before and after the crisis
- Emerging group is heterogeneous

# Results for the **structural** primary balance

*[spread not included]*

- Euro area: some discretionary counter-cyclical policy before the crisis, no in 2008-14
- Non-EU advanced 7 the gap parameter is almost identical in the two periods

	Euro area 11		Non-euro EU 8		Non-EU advanced 7		Emerging 28	
	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14
spb(-1)	<b>-0.21</b>	<b>-0.24</b>	<b>-0.15</b>	<b>-0.23</b>	<b>-0.17</b>	<b>-0.14</b>	<b>-0.14</b>	<b>-0.36</b>
<i>t-stat</i>	<b>[-2.6]</b>	<b>[-3.3]</b>	<b>[-1.78]</b>	<b>[-2.98]</b>	<b>[-4.11]</b>	<b>[-2.83]</b>	<b>[-2.47]</b>	<b>[-5.59]</b>
debt(-1)	0.01	<b>0.02</b>	0.03	<b>0.02</b>	0.00	0.00	0.01	0.01
<i>t-stat</i>	[1.19]	<b>[3.46]</b>	[1.55]	<b>[2.05]</b>	[-1.37]	[-1.41]	[1.34]	[0.72]
gap	<b>0.24</b>	0.04	0.02	-0.16	<b>0.47</b>	<b>0.48</b>	-0.04	0.06
<i>t-stat</i>	<b>[2.28]</b>	[0.55]	[0.24]	[-1.67]	<b>[3.77]</b>	<b>[5.16]</b>	[-0.8]	[0.92]
constant	-0.37	<b>-1.43</b>	<b>-1.50</b>	<b>-1.63</b>	0.08	0.16	0.07	<b>-0.53</b>
<i>t-stat</i>	[-1.03]	<b>[-2.6]</b>	<b>[-1.77]</b>	<b>[-3.07]</b>	[0.44]	[0.54]	[0.27]	<b>[-1.7]</b>
R2	0.14	0.26	0.11	0.30	0.35	0.41	0.08	0.29
Number of obs.	87	77	56	56	54	49	186	196

# Results for the **structural** primary balance

*Spread added*

- Gap parameters hardly change
- Market pressure significant in euro area

	Euro area 11		Non-euro EU 8		Non-EU advanced 7		Emerging 28	
	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14
spb(-1)	<b>-0.21</b>	<b>-0.18</b>	<b>-0.20</b>	<b>-0.22</b>	<b>-0.17</b>	<b>-0.14</b>	<b>-0.16</b>	<b>-0.42</b>
<i>t-stat</i>	<b>[-2.68]</b>	<b>[-2.21]</b>	<b>[-2.42]</b>	<b>[-2.56]</b>	<b>[-3.83]</b>	<b>[-2.66]</b>	<b>[-1.94]</b>	<b>[-5.11]</b>
debt(-1)	0.01	0.01	0.03	<b>0.02</b>	0.00	0.00	0.01	0.01
<i>t-stat</i>	[1.33]	[1.4]	[1.79]	<b>[1.92]</b>	[-0.89]	[-1.1]	[0.68]	[0.91]
gap	<b>0.27</b>	0.10	0.04	-0.14	<b>0.47</b>	<b>0.48</b>	0.15	<b>0.46</b>
<i>t-stat</i>	<b>[2.39]</b>	[1.39]	[0.73]	[-1.24]	<b>[3.81]</b>	<b>[5.09]</b>	[1.67]	<b>[2.65]</b>
spread	-0.58	<b>0.32</b>	<b>-0.26</b>	0.12	0.01	0.01	-0.05	0.02
<i>t-stat</i>	[-0.91]	<b>[3.21]</b>	<b>[-2.18]</b>	[0.85]	[0.08]	[0.03]	[-0.69]	[0.21]
constant	-0.45	-0.83	-1.41	-1.76	0.06	0.16	0.18	-0.48
<i>t-stat</i>	[-1.12]	[-1.38]	[-1.68]	[-3.26]	[0.26]	[0.55]	[0.29]	[-0.72]
R2	0.15	0.33	0.15	0.32	0.35	0.41	0.12	0.47
Number of obs.	87	77	56	56	54	49	78	59



# Results for the **nominal** primary balance

*[spread not included]*

- Automatic stabilisers were allowed to run in EA and non-EU advanced: parameters similar

	Euro area 11		Non-euro EU 8		Non-EU advanced 7		Emerging 28	
	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14
pb(-1)	<b>-0.37</b>	<b>-0.56</b>	-0.14	<b>-0.39</b>	-0.05	-0.12	<b>-0.19</b>	<b>-0.47</b>
<i>t-stat</i>	<b>[-5.12]</b>	<b>[-4.34]</b>	[-1.8]	<b>[-4.62]</b>	[-0.7]	[-1.52]	<b>[-3.06]</b>	<b>[-7.64]</b>
debt(-1)	0.00	0.01	0.02	0.02	0.00	-0.01	0.00	0.00
<i>t-stat</i>	[0.62]	[0.7]	[1.16]	[1.21]	[-0.59]	[-1.53]	[0.3]	[-0.09]
gap	<b>0.41</b>	<b>0.91</b>	0.03	0.07	<b>0.38</b>	<b>0.87</b>	0.02	<b>0.24</b>
<i>t-stat</i>	<b>[3.56]</b>	<b>[3.91]</b>	[0.52]	[0.69]	<b>[2.16]</b>	<b>[4.72]</b>	[0.39]	<b>[4.11]</b>
constant	0.50	0.74	-1.03	<b>-1.58</b>	0.50	0.99	0.33	-0.30
<i>t-stat</i>	[1.47]	[0.78]	[-1.27]	<b>[-2.16]</b>	[1.01]	[2.24]	[1.09]	[-0.79]
R2	0.31	0.55	0.08	0.30	0.07	0.44	0.08	0.36
Number of obs.	88	77	60	56	54	49	203	196

# Results for the **nominal** primary balance

*[spread not included] IRELAND EXCLUDED*

- But if we exclude Ireland from the euro area (where bank rescue costs hugely increased the primary deficit), the parameter of the euro area becomes smaller than in other advanced countries

	Euro area 11		Non-euro EU 8		Non-EU advanced 7		Emerging 28	
	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14	2000-07	2008-14
spb(-1)	<b>-0.37</b>	<b>-0.46</b>	-0.14	<b>-0.39</b>	-0.05	-0.12	<b>-0.19</b>	<b>-0.47</b>
<i>t-stat</i>	<b>[-5.12]</b>	<b>[-6.09]</b>	[-1.8]	<b>[-4.62]</b>	[-0.7]	[-1.52]	<b>[-3.06]</b>	<b>[-7.64]</b>
debt(-1)	0.00	0.01	0.02	0.02	0.00	-0.01	0.00	0.00
<i>t-stat</i>	[0.62]	[1.01]	[1.16]	[1.21]	[-0.59]	[-1.53]	[0.3]	[-0.09]
gap	<b>0.41</b>	<b>0.59</b>	0.03	0.07	<b>0.38</b>	<b>0.87</b>	0.02	<b>0.24</b>
<i>t-stat</i>	<b>[3.56]</b>	<b>[5.35]</b>	[0.52]	[0.69]	<b>[2.16]</b>	<b>[4.72]</b>	[0.39]	<b>[4.11]</b>
constant	0.50	0.05	-1.03	<b>-1.58</b>	0.50	0.99	0.33	-0.30
<i>t-stat</i>	[1.47]	[0.07]	[-1.27]	<b>[-2.16]</b>	[1.01]	[2.24]	[1.09]	[-0.79]
R2	0.31	0.50	0.08	0.30	0.07	0.44	0.08	0.36
Number of obs.	88	70	60	56	54	49	203	196

1. Economic and fiscal developments
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# Fiscal framework: definition

- **Definition: set of rules and institutions constraining fiscal policy**
  - Numerical rules expressed in terms of indicator of fiscal performance (budget balance, borrowing, debt, revenues, expenditures or subcomponents of these)
  - Institutions: budget procedures, independent fiscal councils...

# Fiscal framework: objectives

- **Ensure sustainability of the debt and discourage deficit bias**
  - Larger than optimal deficits due to informational problems, over-optimistic gov. forecasts, impatience of gov & voters not taking into account future generations, common-pool problems, etc.
- **Leave scope for countercyclical policy**
  - In downturns: no constraint on automatic stabilizer. Especially in protracted recession in which zero lower bound (ZLB) reached, the effect of monetary policy is more uncertain and fiscal multipliers larger (e.g. IMF 2014)
  - In good times: provide incentive government to reduce debt (Martin, Phillipon 2014)
  - Deficits/surplus should be used to smooth effect of distortionary taxes

# Fiscal framework: design issues in a Monetary Union without centralised fiscal authority

- **Counter-cyclical fiscal policy at country level is relevant**
  - No automatic exchange rate adjustment
  - No independent monetary policy to smooth asymmetric shocks
- **At what level should the fiscal framework be designed/enforced?**
  - If deficit bias at national level/origins of bias differ → subsidiarity principle suggests responsibility at the national level
  - If cross-border spillovers → supranational level. Possible spill-overs:
    1. some governments to free ride on their partners by implementing unsustainable fiscal policies and expect a bail-out or a monetization of their debt by the common central bank
    2. suboptimal area-wide policy mix due to lack of fiscal policy coordination and lack of coordination with monetary policy made at aggregate level
    3. Differences in fiscal policy between core and periphery: major tool to address price/wage divergences in non-optimal monetary union (Merler & Pisani-Ferry 2012, Darvas 2013)

# EU Treaty provisions to limit spill-overs

- **First type spill-over (bail-out & monetisation expectation) is addressed:**
  - Art. 123: no bail out clause
  - Art. 125: prohibition of monetary financing
- This should imply that the **Stability and Growth Pact (SGP) is redundant**, fiscal rules could be designed nationally
- **Yet SGP was agreed:**
  - Political price of the euro?
  - Or maybe no bail out clause not credible due to ex post incentive to bail out related to systemic financial stability implications / strong linkages between member states / solidarity?

# Negative impacts of lack of coordination

- **Second & third types of spill-over (suboptimal area-wide policy mix & correcting intra-area price/wage divergences) not addressed**
  - Fiscal Framework should aim at influencing euro-area aggregate fiscal stance to avoid suboptimal fiscal policy and policy mix
  - Fiscal expansion in core desirable if negative output gap, too-low inflation and undervalue intra-area real exchange rate, but in core incentive to be non-cooperative and provide less stimulus than desirable
- **Symmetric supranational fiscal framework taking into account both type of spill-overs would make sense to max. euro-area welfare**
  - Sapir and Wolff (2015): "Eurosystem of Fiscal Policy" force parliaments to borrow more so that the euro-area fiscal stance is appropriate
  - Difficult to punish an "insufficient deficit"



# Other desirable characteristics of a fiscal framework

- **Other desirable properties:**
  - The various rules should be consistent with each other,
  - Implementable in real time,
  - Verifiable,
  - Simple & understandable,
  - Credible & enforceable
- **Enforcement:**
  - Fine counterproductive ex post in a recession: aggravate imbalance
  - Peer pressure maybe more effective, but leads to Europe bashing
  - Enforcement at national level could increase ownership of rules

# Fiscal rules

- **A fiscal rule could be defined as a “permanent constraint on fiscal policy through simple numerical limits on budgetary aggregates” (Kopits and Symansky, 1998).**
- The idea behind fiscal rules is to guide fiscal policy in the achievement of a certain target over a certain period of time. The target variable can change, with different implications for the economy’s response to shocks

## **1. Debt rules**

## **2. Budget balance rules**

## **3. Expenditure rules**

## **4. Revenue rules**

**=> Trade-offs exist between link with debt sustainability and economic stabilisation**

## A pure debt rule sets explicit targets or limits to public debt to GDP

- **Pro:** probably the most effective to ensure convergence to a debt target and a strict link with debt sustainability
- **Cons:** a debt rule alone does not offer clear guidance for fiscal policy in the short term (especially if the debt-to-GDP is below the target)
- **Cons:** a debt rule alone does not possess any inherent stabilisation feature. A constraint expressed in debt-to-GDP form may become pro-cyclical

# Budget balance rules

## Budget balance rules target the flow variable behind debt/GDP ratio

- **Pro:** they provide clearer operational guidance than pure debt rules
- **Cons:** the link with debt sustainability can be weaker (e.g. primary and cyclically adjusted rules vs. headline)

# Budget balance rules, con't

- **Cyclically adjusted balance:** captures changes in fiscal policy depurating from the effect of the economic cycle
- **Structural balance:** also controls for additional one-off factors and non-discretionary changes unrelated to the cycle
- **Balance “over the cycle”:** allows for both the automatic stabilizers and discretionary stimulus, provided that the budget is balance over the cycle. It is the most flexible but presents difficulties (correct assessment of the cyclical position of the economy; possible postponement of remedial measures till the end of the cycle)
- **“Golden rule”:** it targets the overall balance net of capital expenditures. Weakens the link to debt, and it raises difficulty in avoiding “creative accounting” to reclassify spending items

# Expenditure rules

**They set limits on the amount of total, primary, or current spending** (in absolute terms, growth rates, or in percent of GDP).

- **Pro:** they can have some stabilisation effect as they are e.g. consistent with cyclical reductions in tax revenues (while not normally allowing for discretionary expenditure stimulus).
- **Pro:** they have the side effect of keeping the size of the government under control (because they directly define the amount of public resources used by the government)
- **Cons:** they are less directly linked to the objective of debt sustainability than a budget rule (they do not constrain the revenue side). They can provide a stronger operational tool to trigger fiscal consolidation if accompanied by debt or budget balance rules.
- **Cons:** could lead to unwanted changes in the distribution of spending if, to meet the ceiling, shift to spending categories occurs that are not covered by the rule

# Revenues rules

**They set ceilings or floors on revenues and are aimed at boosting revenue collection and/or preventing an excessive tax burden**

- **Pro:** they directly target government size, like expenditure rules
- **Cons:** as for expenditure rules, they are less directly linked to the objective of debt sustainability than a budget rule (they do not constrain spending in absence of an expenditure rule).
- **Cons:** ceilings or floors on revenues can be challenging if revenues have an important cyclical component, which could fluctuate significantly with the business cycle.
- **Cons:** revenue rules alone could result in pro-cyclical fiscal policy, as floors do not generally account for the operation of automatic stabilizers on the revenue side in a downturn or ceilings in an upturn for revenue ceilings.

## Other issues

- **Evident trade-offs** => many countries combine two or more fiscal rules to achieve a good balance between economic stabilisation and link to debt sustainability (e.g. debt rule + expenditure rule; debt + cyclically adjusted budget balance rule..)
- **Escape clauses** => the link to economic cycle provides some flexibility *within* the rules' set up. On top of that, specific escape clauses can provide flexibility in dealing with rare events (e.g. exceptional slowdowns; natural disasters; banking system bailouts)
- **“Rainy day” funds** => an additional possibility to limit rules' pro-cyclicality is to require that fiscal surpluses resulting from economic booms be set aside as contingency reserves that may be withdrawn during slowdowns to finance deficits.



## Other issues, cont'd

- **Fiscal Institutions** => several countries (and European countries under the new rules) combine fiscal rules with fiscal institutions, e.g. independent fiscal councils with a specific mandate to assess and monitor the implementation and impacts of fiscal policy.
- **Uncertainty in measuring effectiveness** => some research suggests the existence of national fiscal rules is correlated with improved fiscal performance, but several works stress that these estimates could be affected by important biases (reverse causality; omitted variable biases)

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# The European Fiscal Framework

- **Stability and Growth Pact (SGP) aims are to:**
  - Prevent unsound fiscal policies: **The Preventive Arm**
  - Correct excessive deficits once they are detected: **Corrective Arm**
- **All countries are in the Preventive Arm, unless:**
  - Budget deficit  $> 3\%$  of GDP
  - Gross debt  $> 60\%$  of GDP and not being reduced at acceptable pace

# Preventive arm

- **Each country must choose a Medium-Term-Objective (MTO), a level of the structural balance that ensures sustainability of public finances.**
  - In the euro area, MTOs must be higher than  $-0.5\%$  GDP ( $-1\%$  of GDP if  $\text{debt} < 60\%$ )
- **Main aim of the Preventive Arm: to ensure convergence towards the MTO**
- **Preventive Arm Rule #1 - The structural balance pillar:**
  - Countries with structural balance below their MTO should improve it by  $0.5$  pp. of GDP per year as a benchmark, with a higher effort required in good times and a lower effort in bad times, and a larger effort required of countries with higher debt-to-GDP

# Medium term objective (MTO)

- **Member states decide their MTOs, following strict guidelines**
- **Revised in every three years**
- **MTOs should take into account:**
  - (i) debt-stabilising balance;**
  - (ii) supplementary debt-reduction effort for member state with debt over 60% GDP,**
  - (iii) future increase in aging costs**

Euro area		Non- euro area	
Austria	-0.45	Bulgaria	-1
Belgium	0.75	Czech Republic	-1
Estonia	0	Denmark	-0.5
Finland	-0.5	Hungary	-1.7
France	0	Poland	-1
Germany	-0.5	Romania	-1
Ireland	0	Sweden	-1
Italy	0	United Kingdom	0
Latvia	-1		
Lithuania	-1		
Luxembourg	0.5		
Malta	0		
Netherlands	-0.5		
Portugal	-0.5		
Slovakia	-0.5		
Slovenia	0		
Spain	0		

# Preventive Arm

*January 2015 modification by the European Commission*

		Required annual fiscal adjustment*	
	Condition	Debt below 60 % and no sustainability risk	Debt above 60 % or sustainability risk
Exceptionally bad times	Real growth < 0 or output gap < -4	No adjustment needed	
Very bad times	$-4 \leq$ output gap < -3	0	0.25
Bad times	$-3 \leq$ output gap < -1.5	0 if growth below potential, 0.25 if growth above potential	0.25 if growth below potential, 0.5 if growth above potential
Normal times	$-1.5 \leq$ output gap < 1.5	0.5	> 0.5
Good times	output gap $\geq$ 1.5 %	> 0.5 if growth below potential, $\geq$ 0.75 if growth above potential	$\geq$ 0.75 if growth below potential, $\geq$ 1 if growth above potential

# Preventive Arm

- **Preventive Arm Rule #2 – The expenditure benchmark pillar:**
  - Requires countries with structural balance below their MTO to contain growth rate of expenditure net of discretionary revenue measures to a country-specific rate below that of its medium-term potential GDP growth
  - The country-specific rate is consistent with a tightening of the budget balance of 0.5% of GDP when GDP grows at its potential rate

# Flexibility in the Preventive Arm

- **Temporary deviation from required adjustment path towards the MTO allowed:**
  - In the case of a *severe economic downturn*
  - When deviation results from unusual event outside the control of the Member State which has a major impact on financial position of general govt
  - In the case of structural reforms with long-term impact on long-term sustainability of public finances (special attention paid to pension reforms)



# Corrective Arm

- **Corrective Arm (=Excessive Deficit Procedure) if the budget balance is  $< -3\%$  of GDP, or if debt is  $> 60\%$  of GDP and not being reduced at acceptable pace → The Debt Rule**
- **Debt Rule:**
  - A country's debt cannot be above 60% of GDP unless the gap between the debt-to-GDP ratio and the 60% benchmark is being reduced by 5% per year on average over three years

# Corrective Arm

- **Once excessive deficit is detected, the Council and Commission issue recommendations which set a required path for the budget balance and a deadline to reduce the deficit**
- **Action taken is assessed, and decision is made either to:**
  - Abrogate the Excessive Deficit Procedure and move country to Preventive Arm
  - Step up the Excessive Procedure: revised recommendations (notices), possible sanctions

# Flexibility in the Corrective Arm

- **When deciding to start an EDP, special consideration given to:**
  - Unusual event outside control of Member State
  - Severe economic downturn: negative annual GDP growth or protracted period with large output gap
  - If excessive deficit reflects implementation of pension reform
- **When assessing if Member State complied with recommendation or notice:**
  - Unexpected adverse economic event with major unfavourable consequences for government finances
  - New clarification in January 2015: structural reforms

# Aggregate fiscal stance

- **Despite occasional claims by the European Commission, in country-specific recommendations there is no consideration of:**
  - Euro-area aggregate fiscal stance
  - Euro-area output gap
  - This leads to uncoordinated recommendations to each Member State\*

\* See Darvas, Zsolt and Erkki Vihriälä (2013) ['Does the European Semester deliver the right policy advice?'](#), 20 September, Bruegel Policy Contribution 2013/12

# Rule inconsistency

- Debt-rule would require a huge improvement in Italy's structural balance in 2015 (2.5% of GDP), while the January 2015 interpretation of the Commission suggests 0.25%

Italy	2013	2014	2015
<b>Structural Balance Pillar</b>			
Required $\Delta$ SB (Stability Programme April 2014)	0	0	0.5
Planned $\Delta$ SB in Stability Programme April 2013	1.2	0.7	0.8
$\Delta$ SB (Winter Forecast 2015)	0.7	-0.2	0.3
<b>Expenditure Balance Pillar</b>			
Applicable reference rate ( <a href="#">Staff Working Document Nov 2014</a> )	0.3	0	-1.1
One-year deviation (*) (Autumn Forecast 2014)	1.3	0.4	-0.7
<b>Debt Criterion</b>			
Required $\Delta$ SB (MLSA) (Analysis of Italy's DBP 2014)	1.1	1.2	2.5
$\Delta$ SB (Winter Forecast 2015)	0.7	-0.2	0.3

(\*) A negative sign implies that expenditure growth exceeds the applicable reference rate.

# Rule inconsistency? No problem!

- **26 February 2015 Communication of the European Commission:**
- Belgium and Italy: **“While these countries appear to be at variance with the debt reference value, the Commission considers that the opening of an excessive deficit procedure is not warranted at this stage** in the light of key relevant factors that the Commission is required by Article 126(3) TFEU to take into account in assessing compliance with the debt criterion. For Belgium and Italy, the assessment takes into account the following relevant factors: **(i) the current unfavourable economic conditions** characterised by low nominal growth make the respect of the debt rule particularly demanding; **(ii) the expectation that these countries are broadly compliant with the required adjustment towards the medium term objective (MTO)** and **(iii) the ongoing implementation of ambitious structural reform plans”**

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# Structural budget balance estimate depends on potential output

- **Potential output methodology used by the European Union has major shortcomings (conceptual & practical)**
- **The methodology considers three inputs:**
  - **Capital:** the actual capital stock (typically measured as accumulated investments less amortisation) is used;
  - **Labour:** after identifying labour supply, a measure of 'equilibrium' unemployment rate, the so-called NAWRU (non-accelerating wage rate of unemployment), is used to estimate the sustainable level of employment. NAWRU is estimated with a statistical technique;
  - **Total factor productivity:** measured as a residual after taking into account the contributions of capital and labour to actual output; for calculating potential output, it is assumed that productivity changes along a smooth path and a statistical method is used to adjust actual data to this smoothness concept.

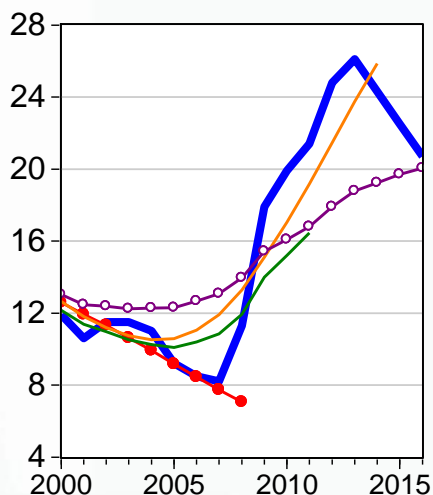


# Instability of NAWRU estimates 1.

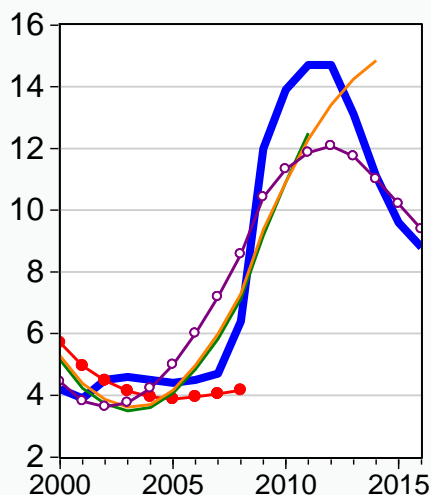
- NAWRU estimates follow the actual trend of unemployment rate, and were revised significantly for the past when the trend changed

## NAWRU estimates and forecasts by the European Commission at different dates and the actual unemployment rate, 2000-2016

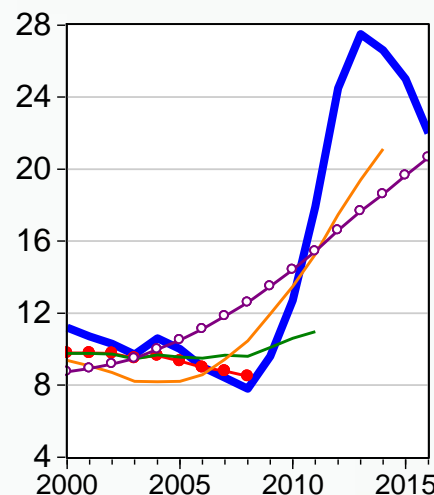
Spain



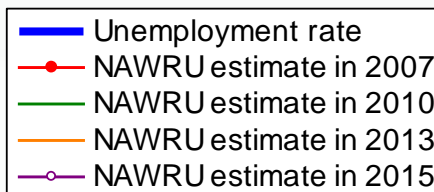
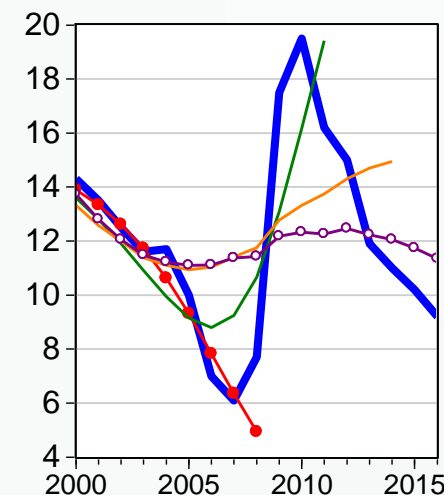
Ireland



Greece



Latvia



NAWRU = non-accelerating wage rate of unemployment

# Instability of NAWRU estimates 2.

- Smaller revisions for Germany, but sizeable revisions even for the UK and Poland

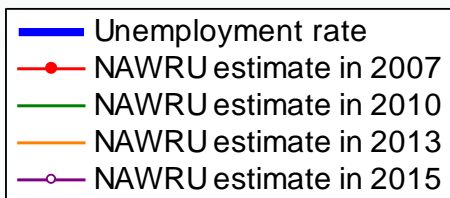
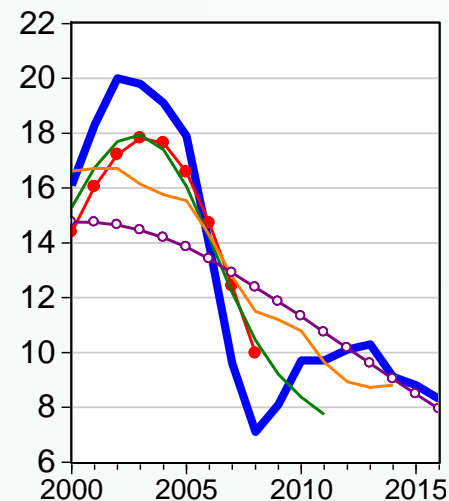
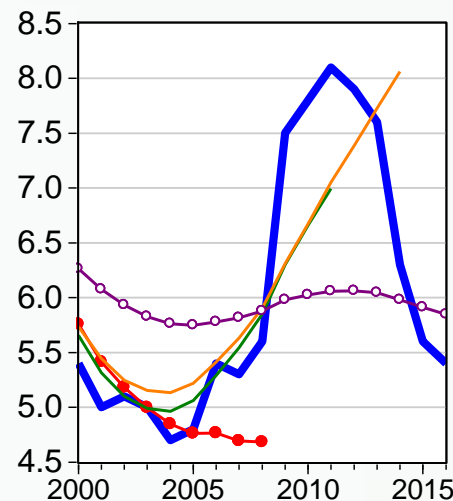
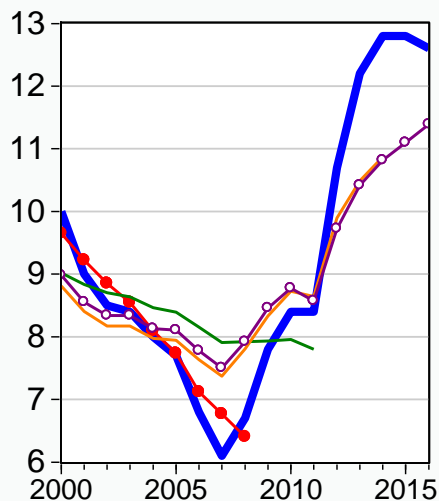
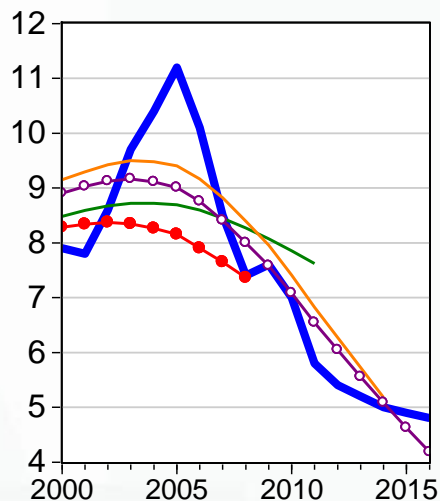
**NAWRU estimates and forecasts by the European Commission at different dates and the actual unemployment rate, 2000-2016**

Germany

Italy

United Kingdom

Poland

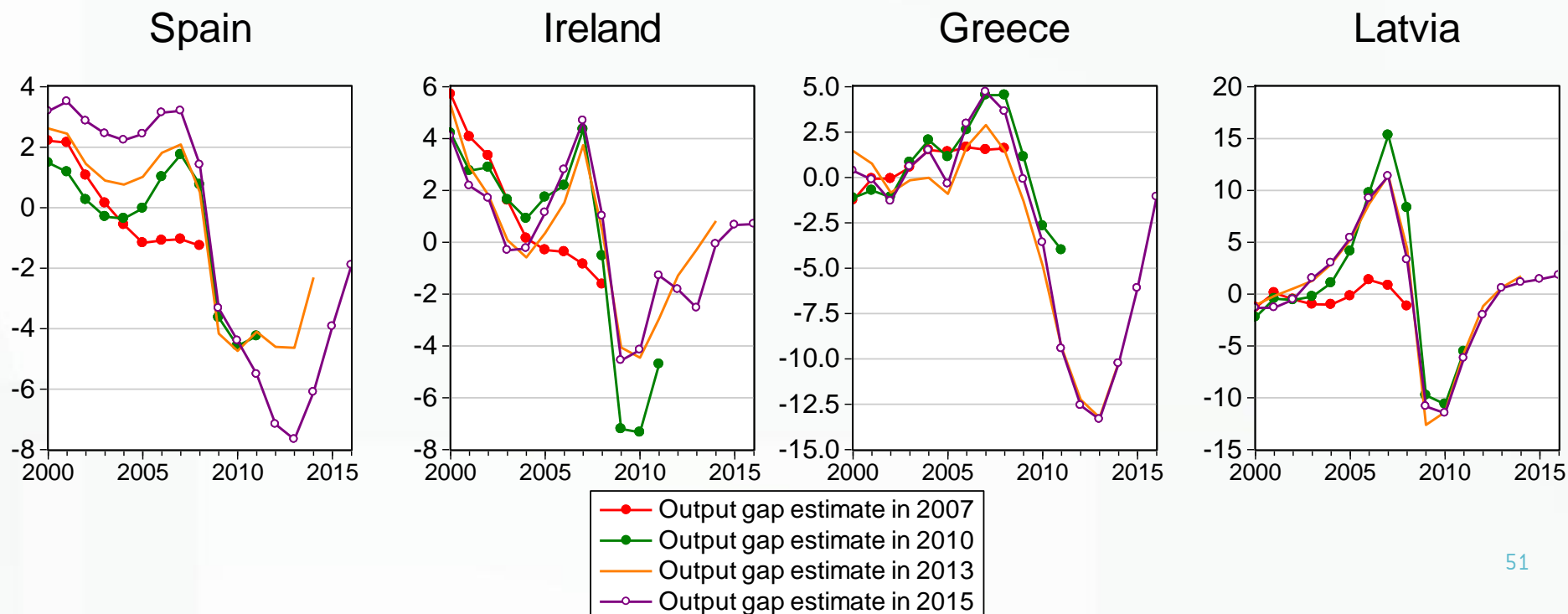


NAWRU = non-accelerating wage rate of unemployment

# Instability of potential output estimates 1.

- In 2007, European Commission estimated that Ireland & Spain had negative output gaps that year, and Latvia' output was close to potential. These estimates were revised significantly in later years.

## Output gap estimates and forecasts by the European Commission at different dates, 2000-2016



# Instability of potential output estimates 2.

- There were sizeable revisions in European Commission estimates even for Germany; also for Italy, UK and Poland too

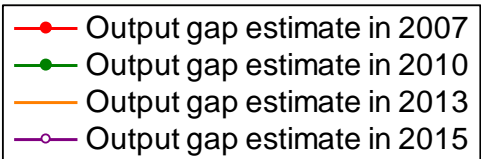
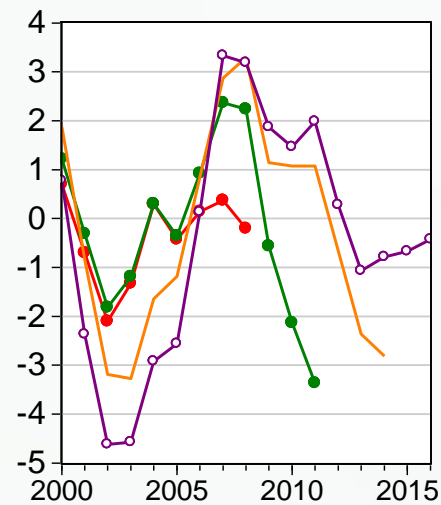
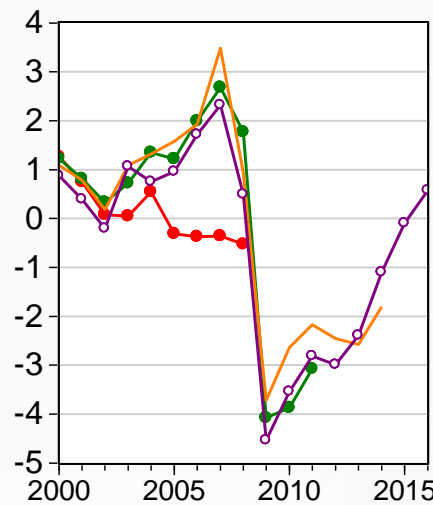
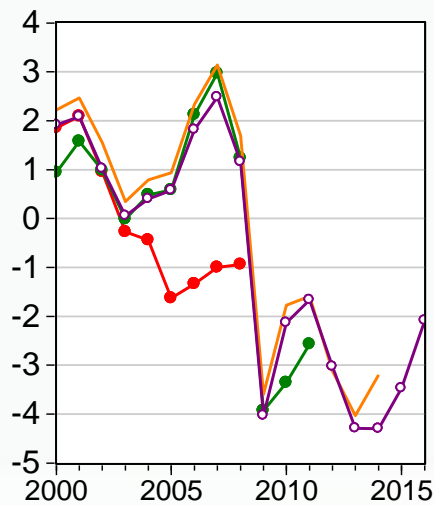
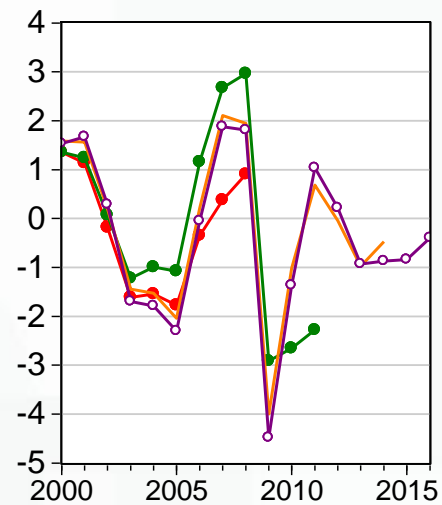
## Output gap estimates and forecasts by the European Commission at different dates, 2000-2016

Germany

Italy

United Kingdom

Poland



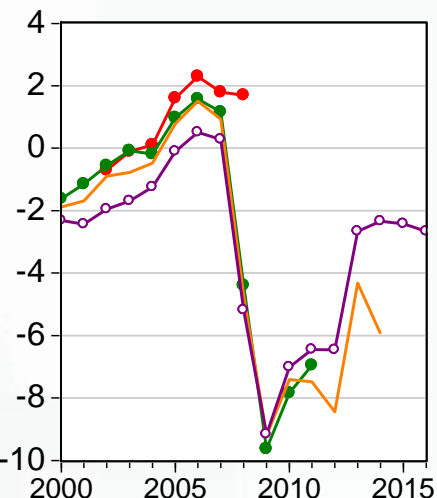
# Instability of structural balance estimates 1.

*Note: we show cyclically adjusted balance, due to longer time series*

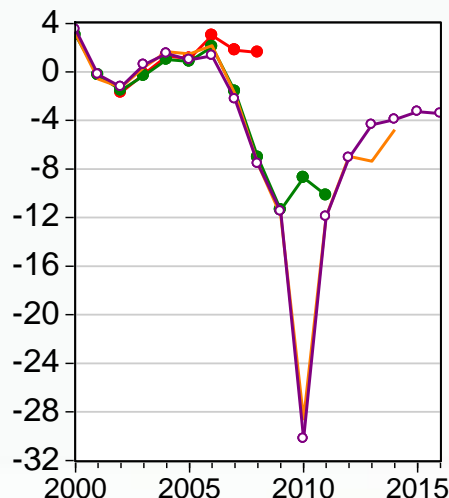
- Sizeable revisions in some cases

## cyclically adjusted balance estimates and forecasts by the European Commission at different dates, 2000-2016

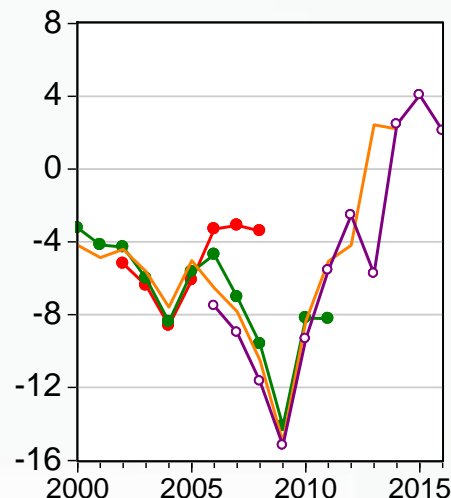
Spain



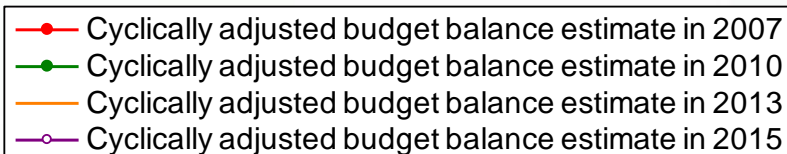
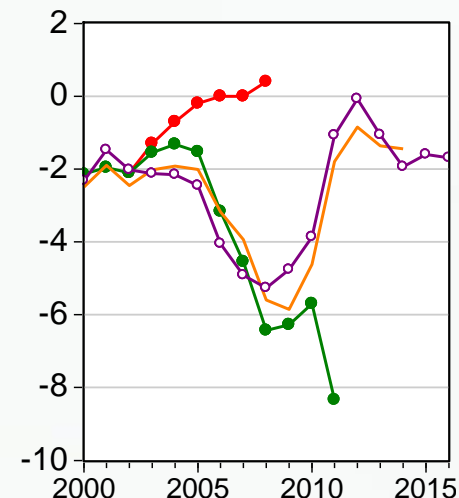
Ireland



Greece



Latvia



# Instability of structural balance estimates 2.

*Note: we show cyclically adjusted balance, due to longer time series*

- Sizeable revisions in some cases

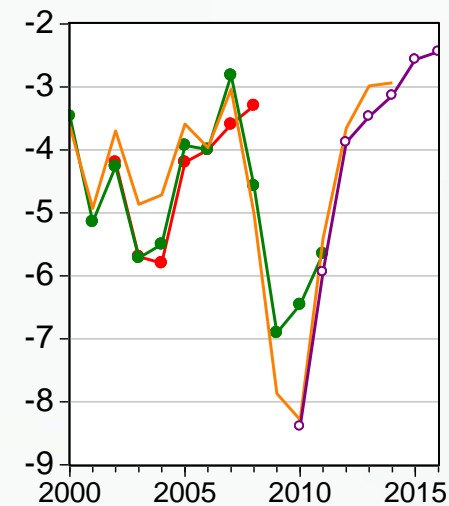
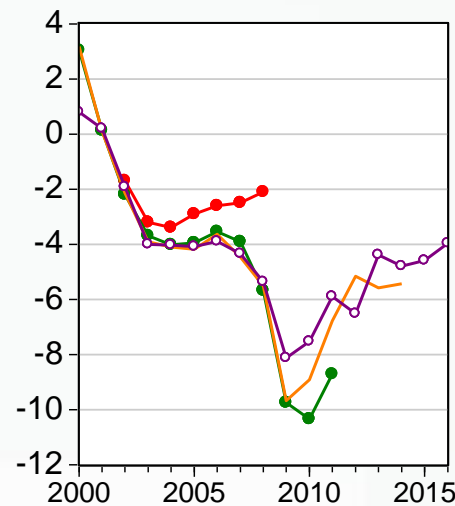
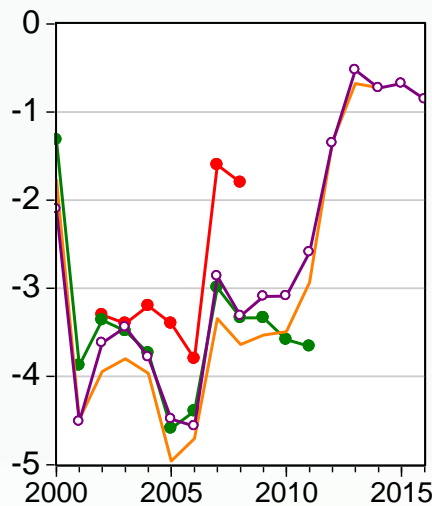
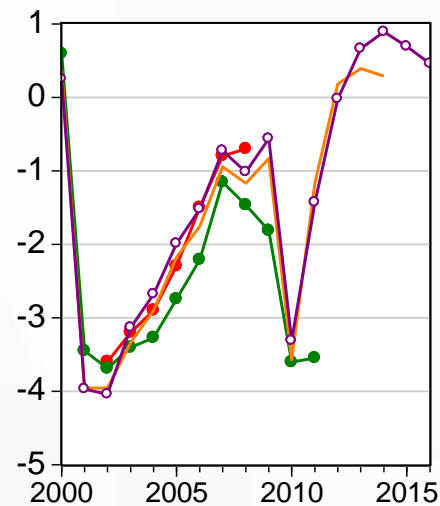
## cyclically adjusted balance estimates and forecasts by the European Commission at different dates, 2000-2016

Germany

Italy

United Kingdom

Poland



- Cyclically adjusted budget balance estimate in 2007
- Cyclically adjusted budget balance estimate in 2010
- Cyclically adjusted budget balance estimate in 2013
- Cyclically adjusted budget balance estimate in 2015

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# Some numerical simulations to assess the impact of EU fiscal rules on debt dynamics and cyclical stabilisation

- **What is "optimal" fiscal trajectory?**
  - Academic literature not very helpful
  - Simon Wren-Lewis (2015): output gap has to be corrected first with fiscal policy; debt reduction should come afterwards
  - Marco Buti and Nicolas Carnot (2015): weight output gap and fiscal gap
  - We assess if fiscal policy implemented in non-EU advanced countries (as revealed by our regressions) would be feasible
- **Scenarios under various assumptions (growth-interest rate diff., initial level of public debt, initial level of output gap, future shocks) with**
  - Either structural budget balance = -0.5% of GDP,
  - Or our estimated non-EU fiscal reaction

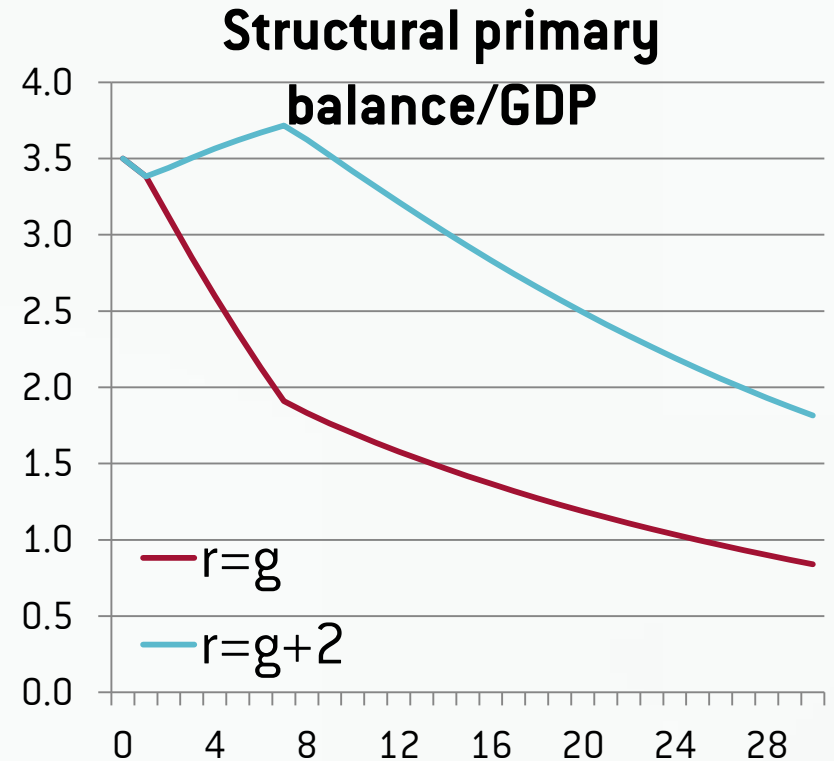
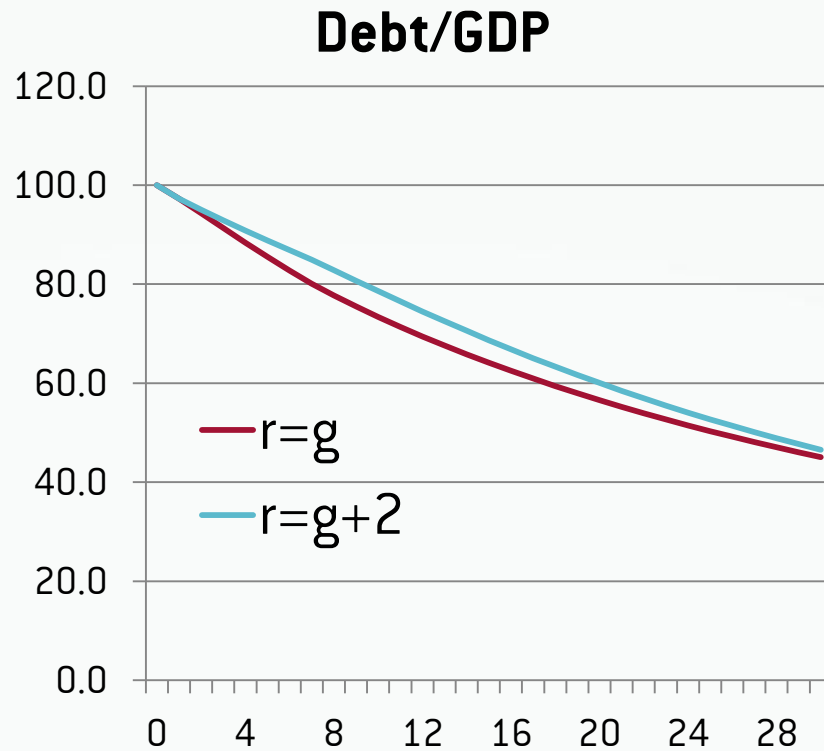


# Some numerical simulations

- **Assume:**
  - Long-term potential growth (nominal): 3%
  - Average interest rate on outstanding debt: 4%, maturity: 6 years
  - Fiscal multiplier: 1.5 (=output impact of change in st. primary balance)
  - Autonomous output gap correction: 0.2 (=20% of previous year output gap autonomously corrects)
  - Output gap impact on actual primary balance: 0.5 (=the dif between actual and structural primary surplus is 0.5-times the output gap)
  - Phillips-cure slope: 0.1 (=inflation impact of 1%-point increase in gap)
- **Parameters to alter:**
  - Interest rate on new borrowing
  - Initial public debt
  - Initial output gap and subsequent economics shocks

# 100% initial debt, no output gap, no shock

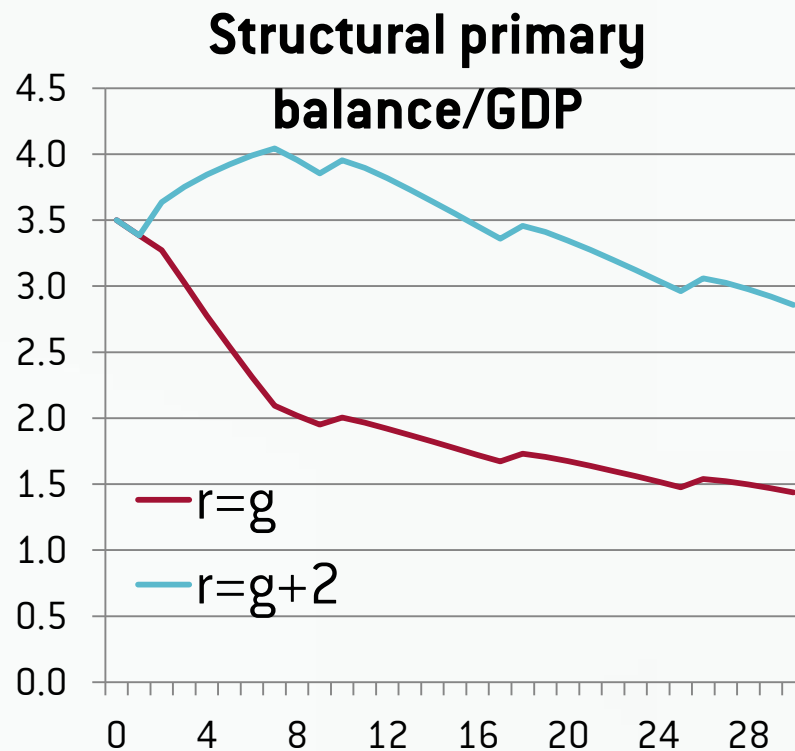
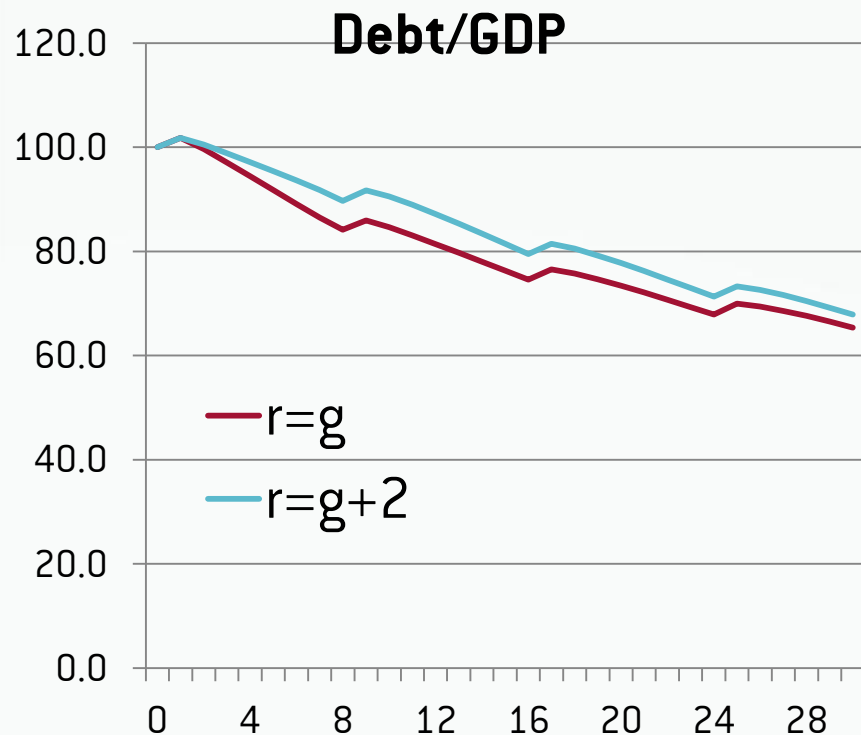
*Structural budget balance = -0.5% of GDP throughout*



- Debt ratio reduced well below 60%, with a primary surplus which is not "unusual"
- Debt reduction criterion is met

# 100% initial debt, -3% output shock in every 8th year

*Structural budget balance = -0.5% of GDP throughout*



- Debt ratio only approaches 60% in 30 years, with "large" structural primary surpluses in times of recession
- Debt reduction criterion is NOT met (in most years)

## Some other simulations

- The 3% deficit threshold can be binding even if a country is on its paths toward its MTO → another inconsistency
- Fiscal response as in non-EU advanced countries would not be possible, because a persistent output gap would require fiscal stimulus in a number of years

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## Some conclusions

- Europe was hit harder during the crisis, partly due to fiscal policy
- While automatic stabilizers worked in the euro area, discretionary stabilisation was not significant, in contrast to non-EU advanced countries
- Many recent changes to the EU fiscal framework. Question: should we extrapolate from the recent crisis episode to the future?
- Fiscal rules are useful, though empirical studies aimed at measuring their effectiveness are hindered by reverse causality issues
- Non-optimal monetary union without a central fiscal authority has 3 main fiscal spill-overs: (i) bail-out/monetisation expectations, (ii) sub-optimal fiscal stance, (iii) fiscal tool to address intra-area price/wage divergences. None is correctly addressed.

## Some conclusions, cont'd

- European fiscal rules are complex. Their primary aim is ensuring debt sustainability, while counter-cyclical policy has a secondary role
- They do not meet standard requirements, such as consistency of various rules which each other, easy implementation and verification in real time, simplicity, credibility, enforceability
- Difficulties in structural balance estimation is a major problem
- Yet opacity also means discretion in decision making
- How to improve?
  - "Easy" options: use discretion well, extend the investment clause
  - First best: centralised fiscal capacity, credible no bail out, national enforcement of national fiscal rules, limits on bank holdings of government securities
  - What middle ground?

**Thank you for your attention**

*[zsolt.darvas@bruegel.org](mailto:zsolt.darvas@bruegel.org)*