

Economic Policy and Business Activity

1st cycle, 3rd year, 2nd semester

“Licenciaturas” in Economics and in Management, optional for
Finance and Applied Mathematics (ISEG)
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Chapter 2

FISCAL POLICY

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Index

1. ISSUES AND CONCEPTS

2. THEORIES

3. POLICIES

4. CONCLUSIONS

Readings

Theoretical Classes

Weeks	Chapter of the program	Chapter of the textbook	Pages of the textbook¹	Boxes
3 e 4	Chapter 2	Chapter 3	152-169 180-233	3.1 3.2 3.3 3.4 3.7

¹Boxes of the textbook not included in the last column to the right are not mandatory readings

PRACTICAL CLASSES

Readings 2nd Chapter

Text 4

Bertola, Giuseppe, John Driffill, Harold James, Hans-Werner Sinn, Jan-Egbert Sturm and Ákos Valentinyi (2014), "Austerity: Hurting but Helping", Chapter 3, *EEAG Report on the European Economy 2014*, pp. 75-90.

Text 5

BIS (2014): [Debt and the financial cycle: domestic and global](#), *84th BIS Annual Report, 2013/2014*, June 2014, pp. 65-83.

(Texts 4 and 5 are included in SEBENTA)

Second Preliminary Test: March 24, Texts 4 and 5

ISSUES AND CONCEPTS

- . CONCEPTS AND DEFINITIONS**
- . DEBT IN CONTEXT**
- . LESSONS FROM HISTORY**

A wider concept for EP purposes

Decisions of the **government on taxation and public spending aiming to prevent and correct the fluctuations of the economic cycle, to maintain unemployment near the equilibrium point, and to refrain inflationary or deflationary pressures.**

CONCEPTS AND MEASUREMENT

Fiscal policy = decisions regarding taxes and public spending

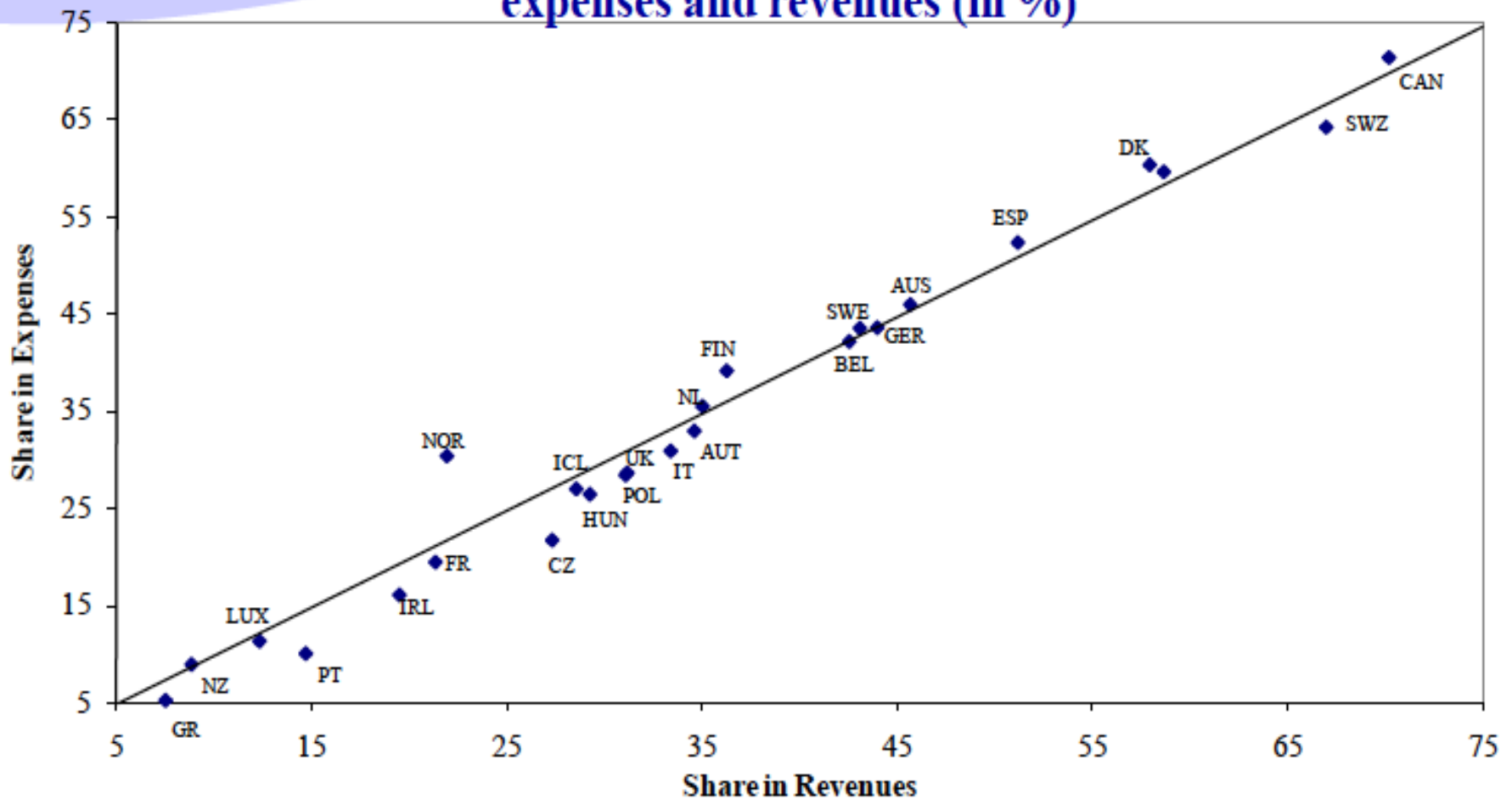
Budget = a document that specifies the origin and volume of both income ("receipts") and intended spending over a certain horizon (usually a year).

- ***Receipts***: income from direct and indirect taxation, social contributions, income from public assets or from provision of public services and, possibly, disposal of public assets.
- ***Spending***: defense, police, justice, education, research, support to the economy, social policy, health, foreign policy, development assistance, etc.
- Budgets for different ***levels*** of government, cities to central government.

General government = central gov't + local gov'ts + social security

Various degrees of centralization

Ratio of local to general government expenses and revenues (in %)

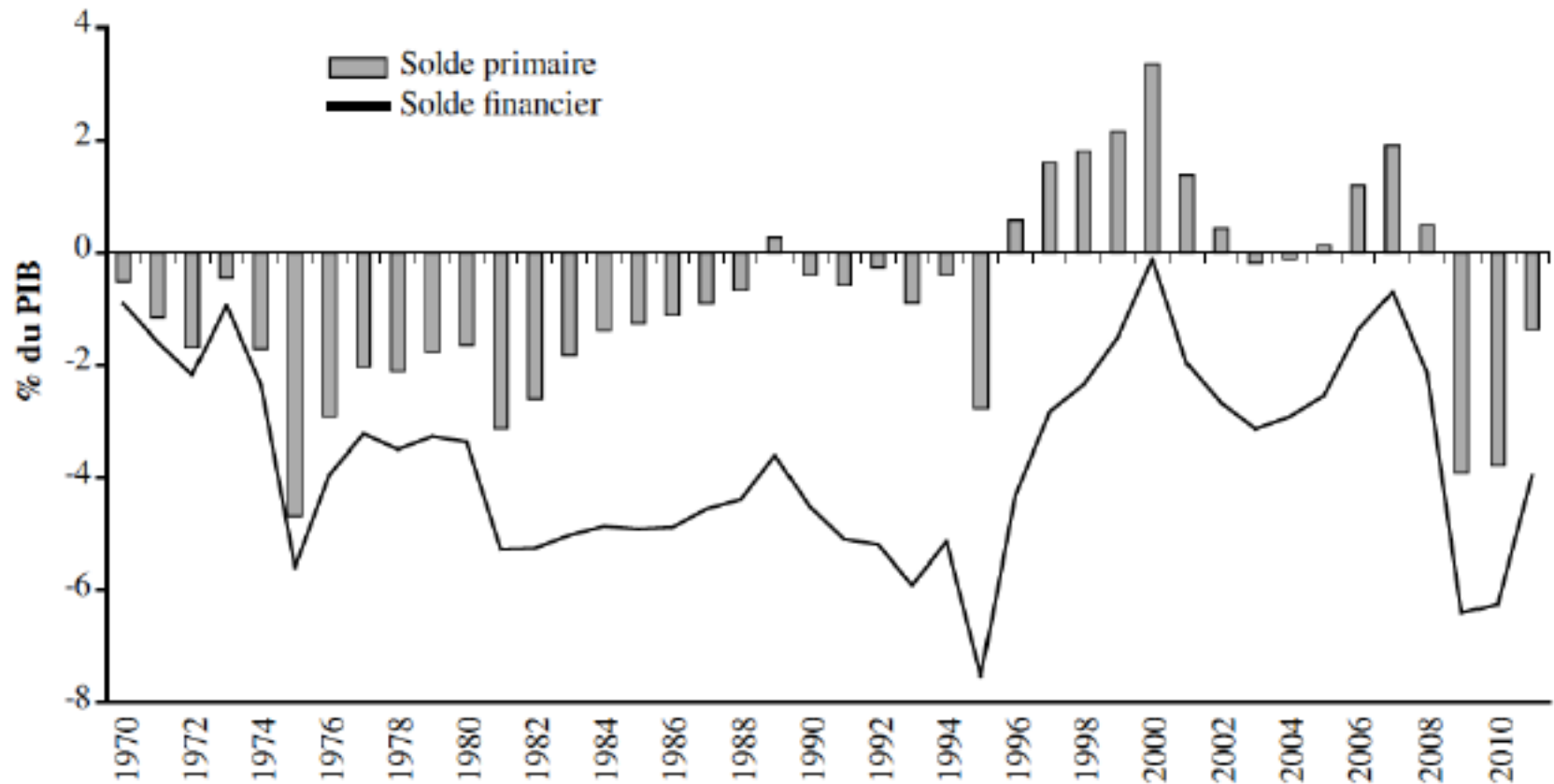


BUDGET (IM)BALANCE

- Budget *balance* = income – expenditures: surplus (+) or deficit (-)
 - Financial (= overall, or headline) balance (= net lending): including net interest payments
 - Primary balance: excluding net interest payments
 - ‘Underlying’ primary balance: excluding net interest payments and one-off operations
 - Cyclically-adjusted (= structural) balance: excluding cyclical balance
- Fiscal (= budgetary, \neq tax) *policy* : changing the budget balance
 - *Discretionary* policy \neq *automatic stabilizers* \neq endogenous reaction to shocks
 - *Fiscal stance*: change in the cyclically-adjusted budget balance

Financial (overall) *versus* primary deficit

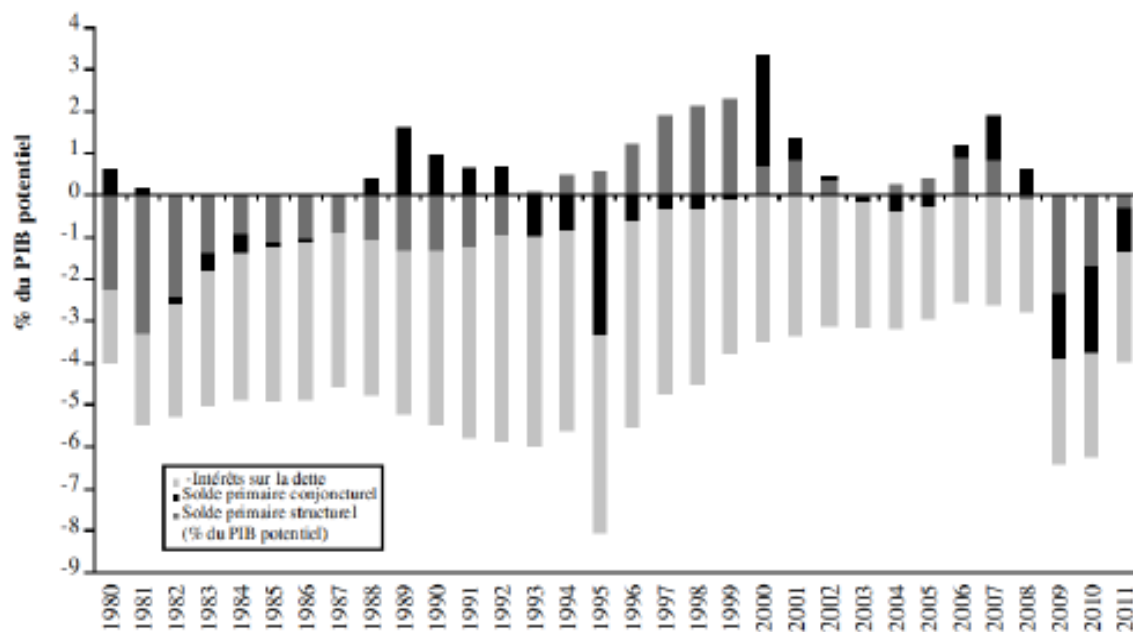
Financial and primary balance, Euro area (% of GDP)



Overall (financial) versus *structural balance*

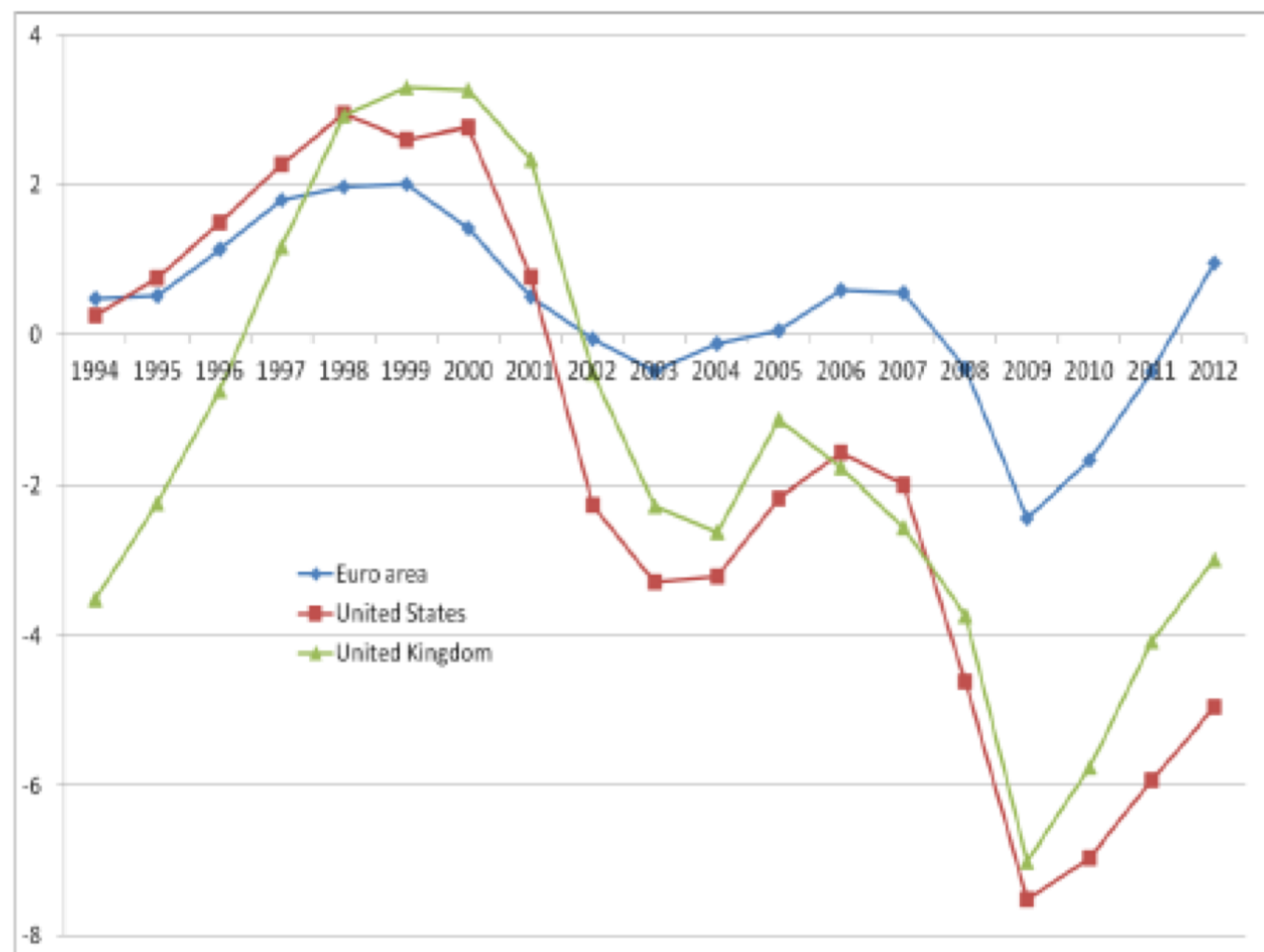
- Sensitivity of financial balance S (in % of GDP) to a change in the output gap y :
 $\varepsilon = dS/dy$
- ‘Structural balance’ = balance that would be observed should the output gap be closed:
 $S^* = S - \varepsilon(y - y^*)$
- Rising importance in economic policy (e.g. SGP, Fiscal Compact)
- Alternative = “narrative” approach to cyclically-adjusted policy (Romer and Romer, 2010)

Financial and structural balance in the euro area



Source: OECD, PE 90, December 2011.

Structural primary balance (% of GDP)



Source: OECD EO91.

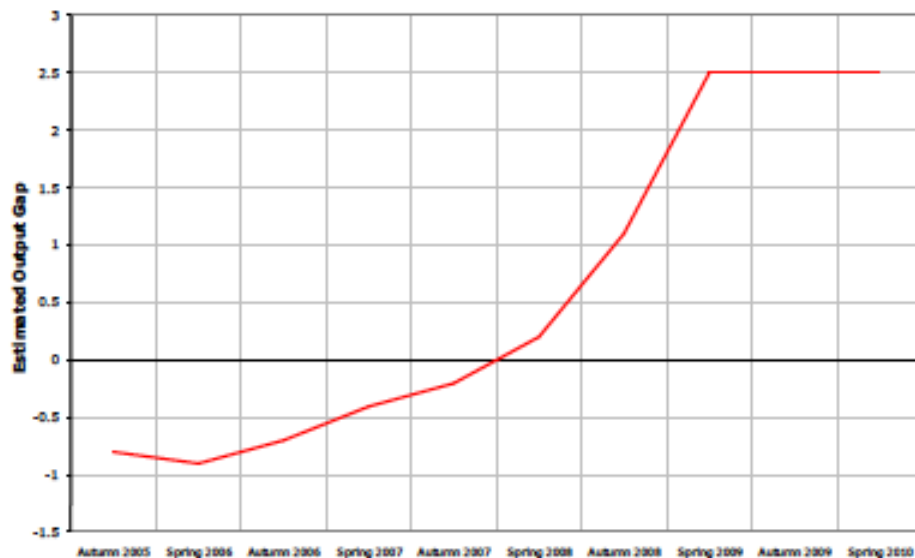
POLICY IMPLICATIONS

- Structural balances are much in fashion
 - EU in 2005 moved from focus on headline deficit to focus on structural deficits
 - German “debt brake” and British “fiscal mandate” are both based on the structural balance; as is the Fiscal Compact
- But they face major methodological shortcomings
- New body of research proposes alternative approaches based on examination of actual tax and expenditures decisions
 - Romer and Romer (2010) based on tax and expenditure events
 - IMF (2010) based on comparison between forecast and outturn

Problems with structural deficits

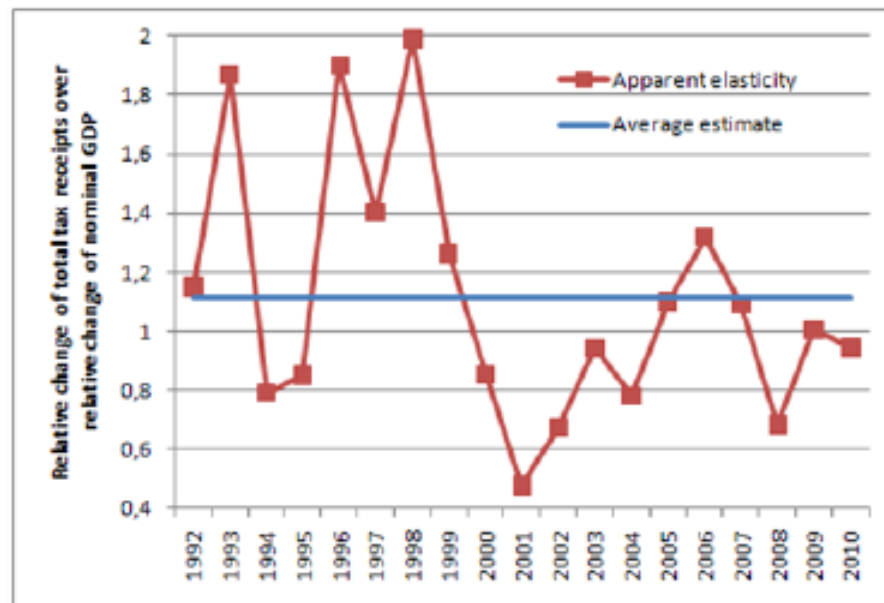
Problem #1: Measuring the output gap

Evolution of Commission estimate of 2007 output gap for the euro area



Problem # 2: Measuring elasticities

Tax- elasticity with respect to GDP in the euro area



Problem # 3: Sectoral cycles (i.e. property) and financial bubbles: structural or cyclical?

Source: Ameco (April 2009).

BURDEN OF GOVERNMENT USED TO BE SMALL!

Evolution of public spending^a for some developed countries, 1880-2002 (% GDP)

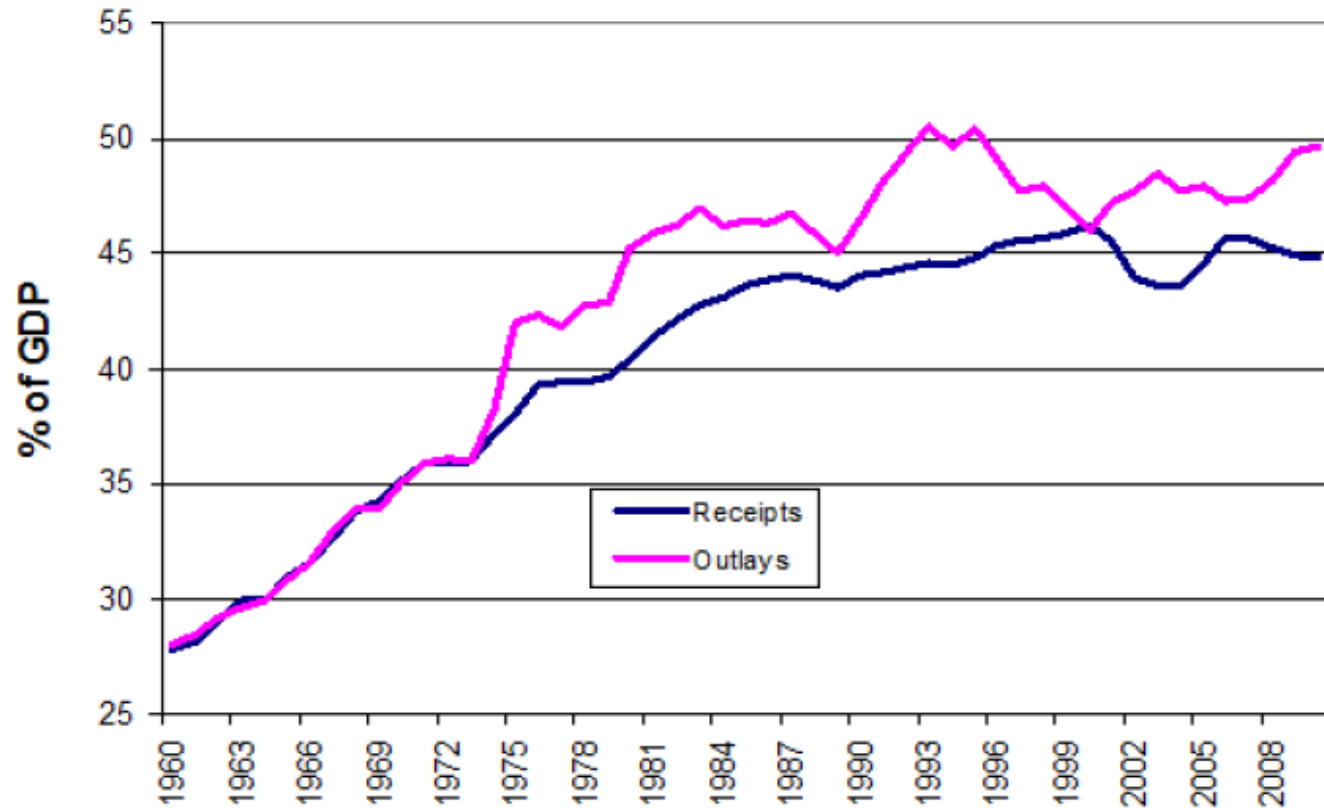
	1880	1929	1960	1979	1990	2002
Japan	11	19	18	24	26	37
USA	8	10	28	32	35	29
Germany	10	31	32	41	43	44
United Kingdom	10	24	32	40	38	39
France	15	19	35	42	46	50
Sweden	6	8	31	57	59	53
Average of the “Six”	10	19	29	39	41	42

a Current outlays of public administration

Source: Begg et al., 1997, 2003: 44 and OECD.

Advanced countries have been in deficit since 1970

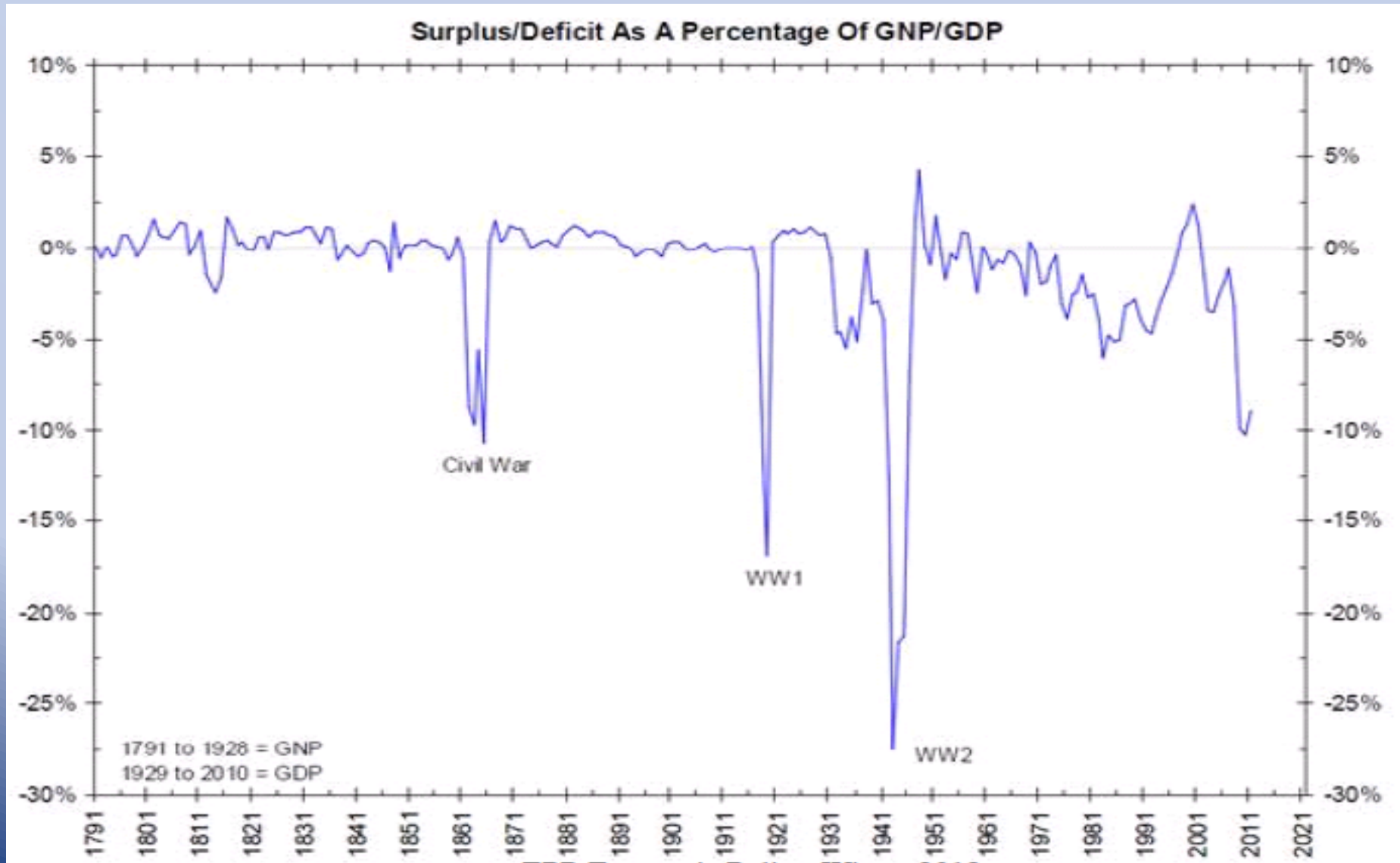
Public expenditure and receipts in the OECD countries



Source: OECD.

1970s: "THE FISCAL CRISIS OF THE STATE"

Large deficits have mostly been the result of wars: USA case

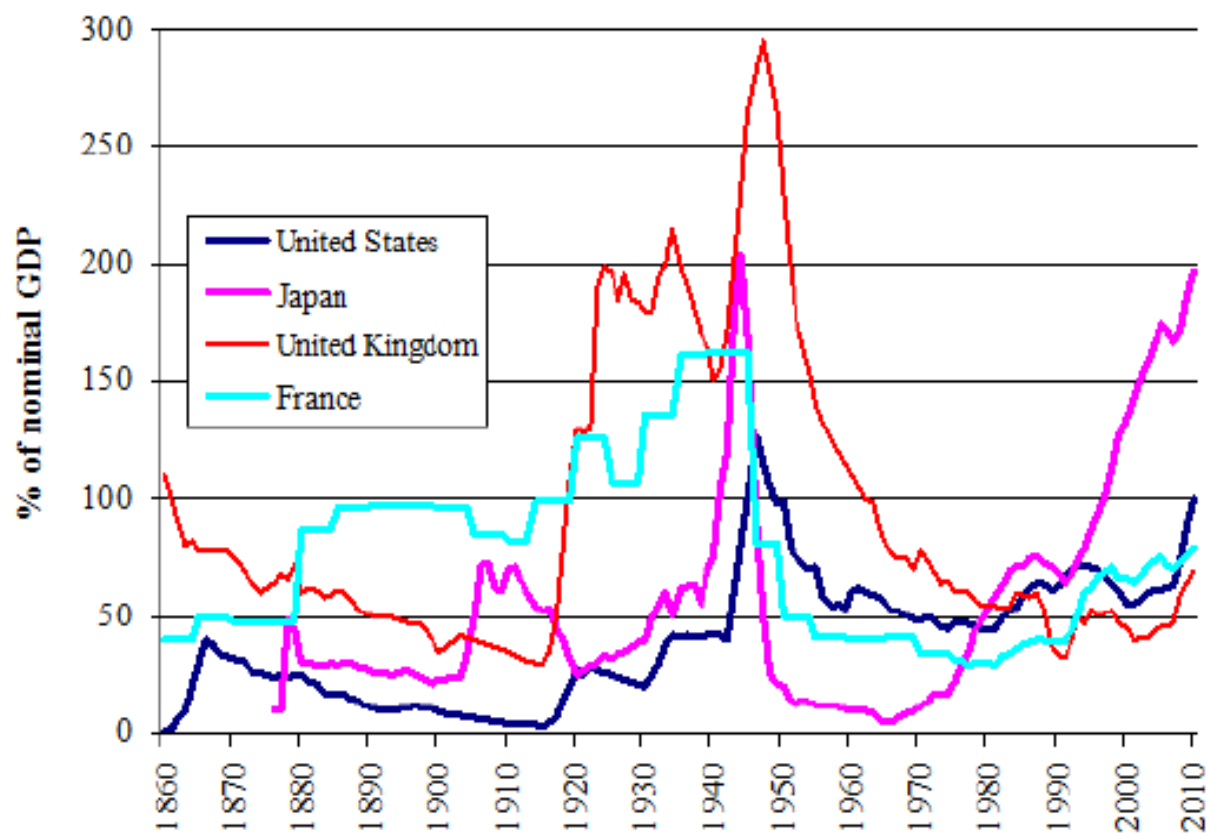


LESSONS FROM HISTORY

- No strict economic *limit to public debt* (provided citizens are willing to pay taxes for a high primary surplus)
- *History* does not provide a clear answer either. Debt ratios have reached 200% of GDP or more. However defaults at lower debt levels were common before the 19th century and still occur in developing and emerging countries.
- Reinhart, Rogoff and Savastano (2003) and Reinhart and Rogoff (2010) claim that '*debt intolerance*' can set in at low debt-to-GDP ratios and that debt has negative consequences on growth already when the debt ratio reaches 90% (60% in emerging economies)
- A specific issue is debt tolerance in a *monetary union*. De Grauwe (2011) has argued that debt in a monetary union is akin to foreign-currency debt (supposes that central bank is there to rescue governments, which is contrary to the EU Treaty)

Public debt ratios have reached very high levels in the past

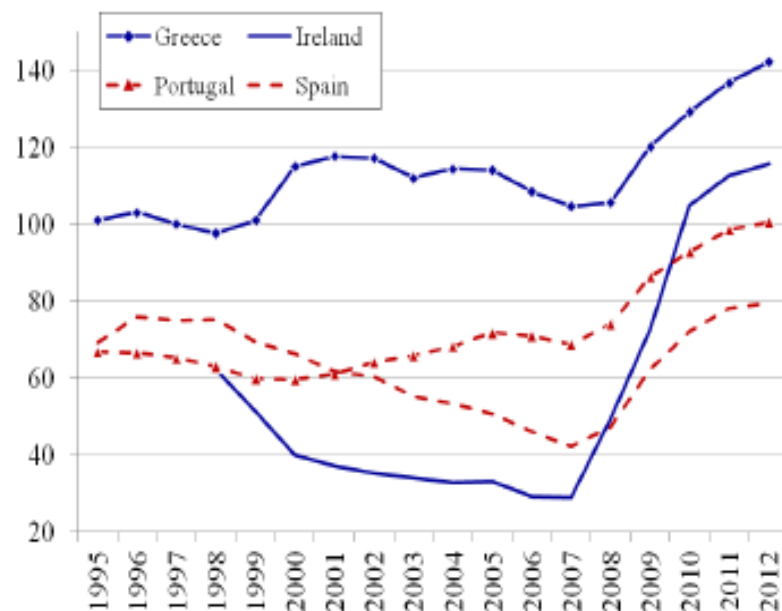
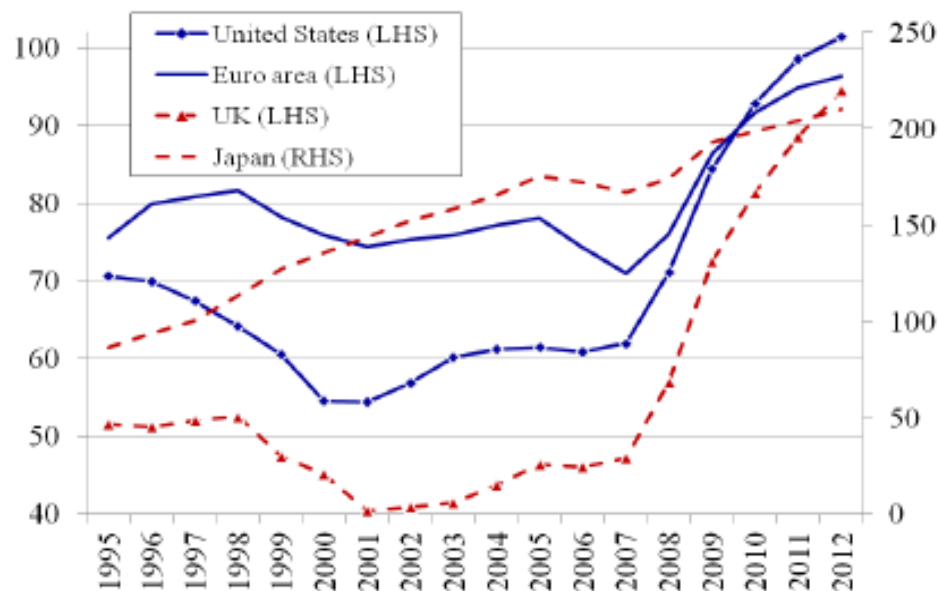
Gross debt (% of GDP)



Source: Masson and Mussa (1995) and OECD (*Economic Outlook* 84, November 2008, and March 2009 *Interim Economic Outlook*). Data for France are 5-year averages until 1960

The crisis (2007-2008) has considerably added to the debt burden

Gross debt (% of GDP)



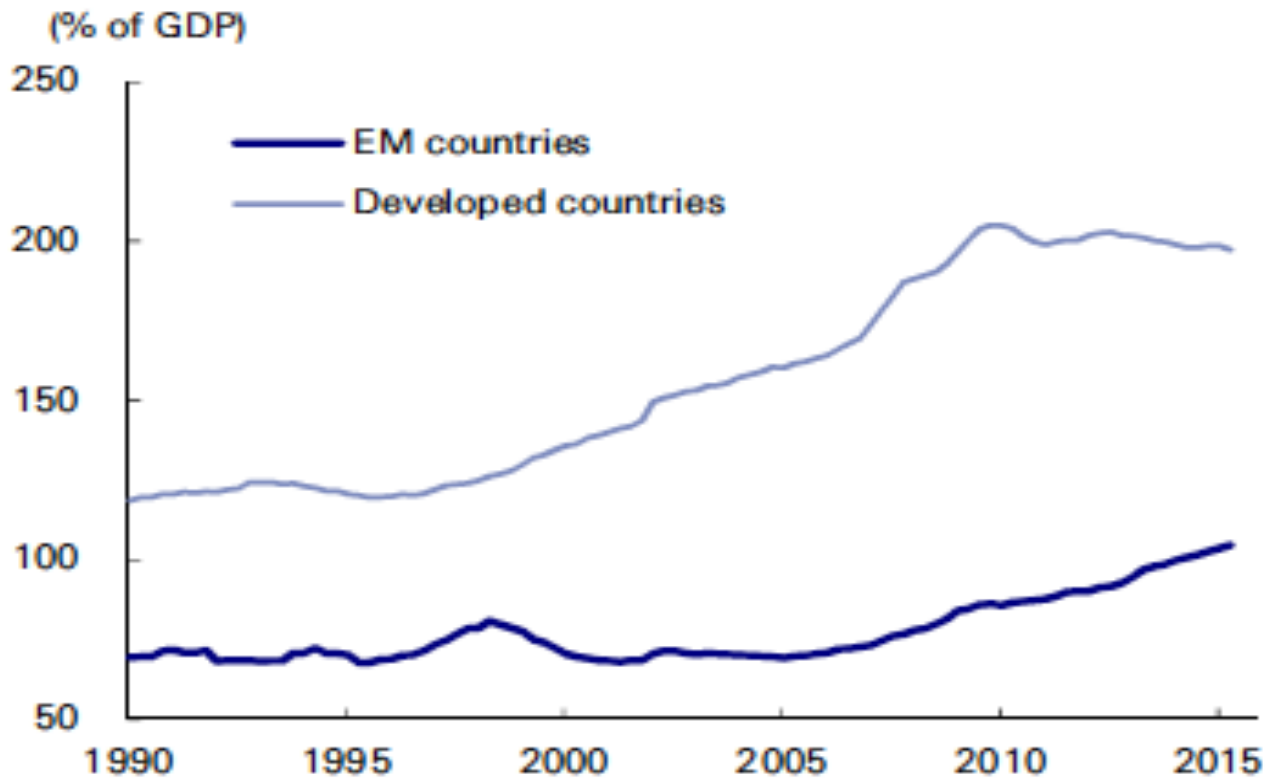
Source: OECD *Economic Outlook*, No. 88.

Gross Public Debt: measured at market value

Net Public Debt: the difference between GDP and the value of public assets

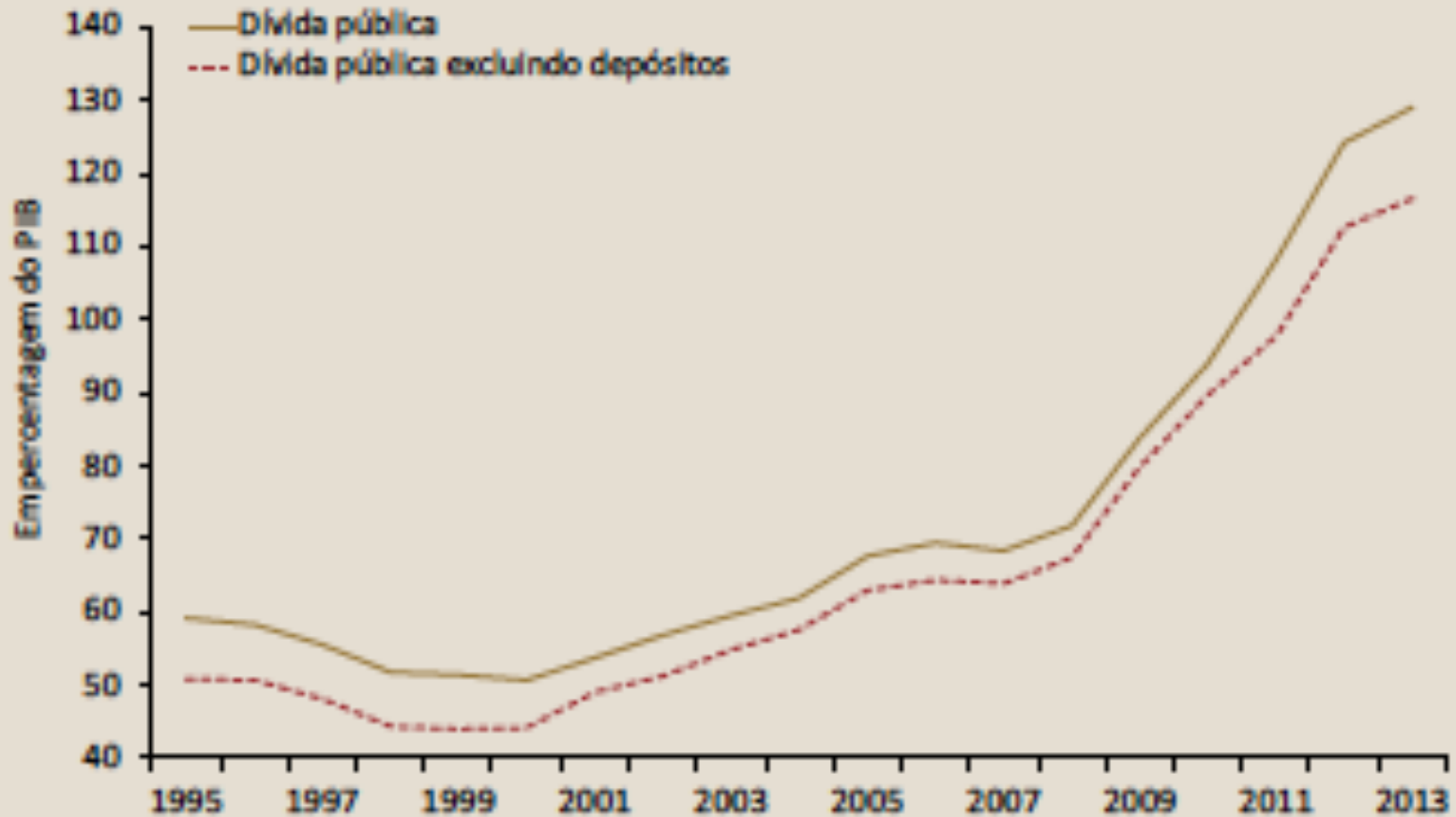
THE ADDED DEBT BURDEN: PRIVATE NONFINANCIAL SECTOR DEBT IN EMERGENT MARKETS AND DEVELOPED COUNTRIES

Figure 11: Private nonfinancial sector debt



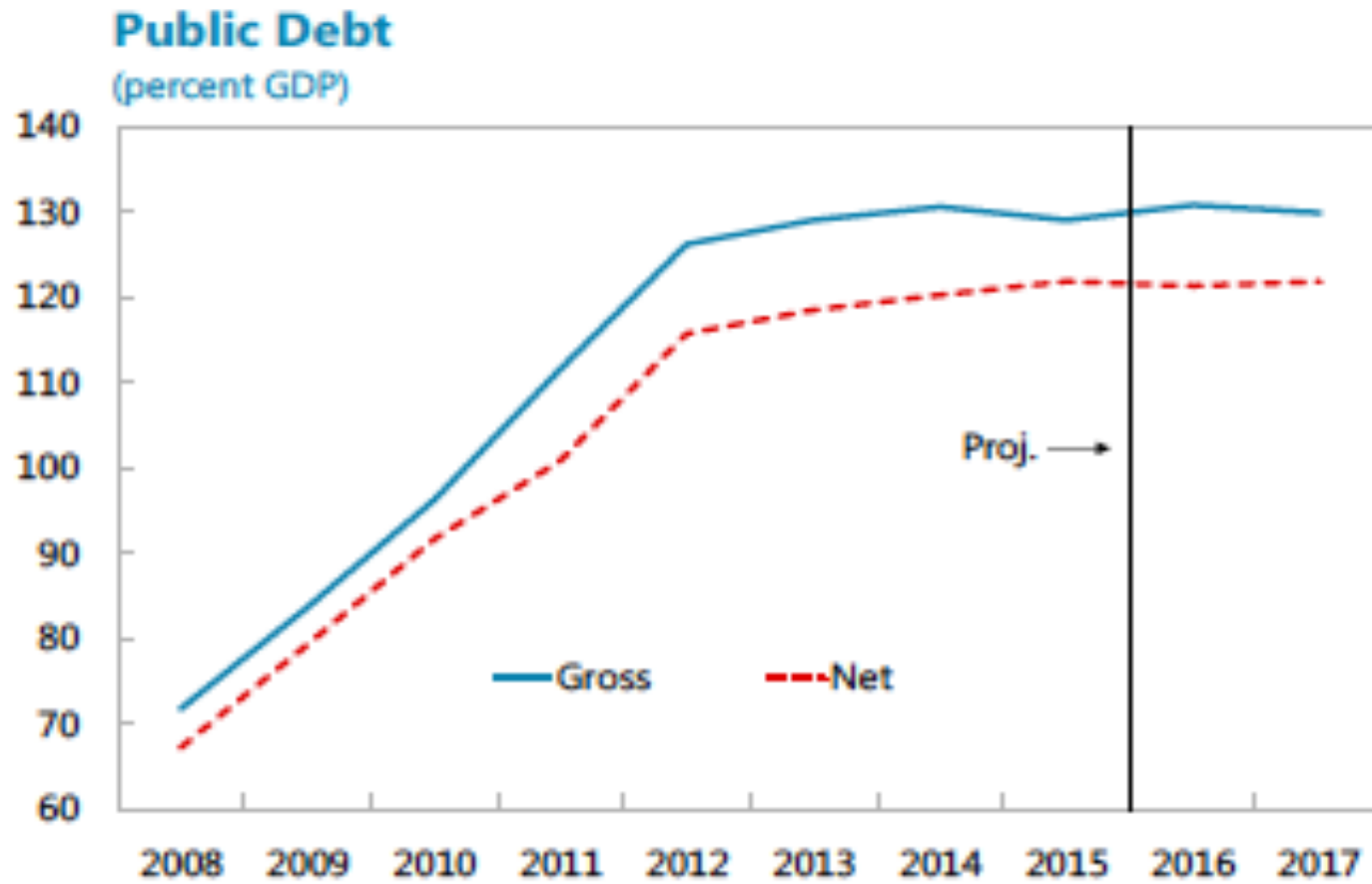
Note: Average of 18 EM countries and 21 developed countries
Sources: BIS, Haver Analytics, DB Global Markets Research

Portuguese public debt (ratio to GDP) 1995-2013



Source: Bank of Portugal & INE

More recent data on Portuguese public debt



Source: Bank of Portugal; and IMF staff calculations.

Gross and net public debts in selected OECD countries 2010 (% of GDP)

En pourcentage du PIB			
	Bruts	Netts	Écart
Norvège	49,7	- 165,9	215,6
Finlande	57,6	- 64,5	122,1
Japon	200,0	116,0	84,0
Suède	49,1	- 26,1	75,1
Corée	34,6	- 37,4	72,0
Danemark	55,6	- 1,3	56,9
Canada	85,1	30,4	54,6
Estonie	12,5	- 36,5	49,0
Slovénie	48,4	0,8	47,6
Suisse	42,6	1,3	41,4
Franco	95,2	58,9	36,3
Pays-Bas	70,6	34,4	36,2
Allemagne	87,1	52,2	34,9
Autriche	78,2	44,0	34,2
Pologne	62,4	28,7	33,7
Royaume-Uni	82,2	53,9	28,3
Italie	126,1	98,6	27,5
Espagne	67,1	40,3	26,8
États-Unis	94,2	68,4	25,8
Australie	23,6	1,8	21,9
Belgique	100,2	80,3	19,9
Zone euro	92,9	58,5	34,5
Total OCDE	97,9	58,1	39,8

Source:
OECD EO90,
December
2011

Off-balance sheet liabilities

	Direct	Contingent
Explicit	Civil servant pensions	State guarantees, deposit insurance schemes
Implicit	Ageing-related expenditures	“Too big to fail” banks, natural catastrophies

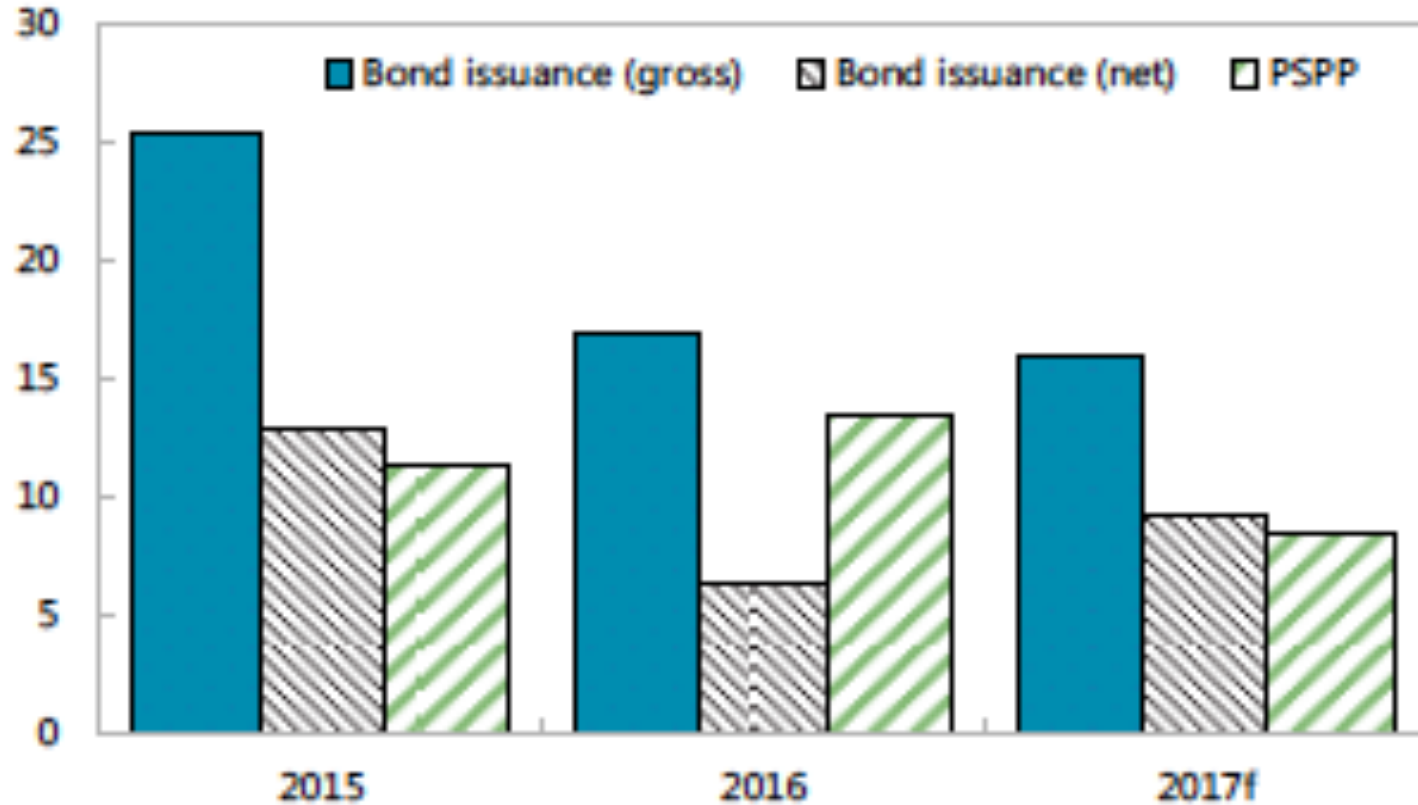
How to pay for the public debt (accumulated loans)

- Golden rule of public finance: only investment can be financed through debt:
 - Germany in 1970 – United Kingdom in 1990
 - Germany 2009 – 0.35% of the cycle to come into force in 2016.
- Sources of deficit financing:
 - Lending of the central bank – money creation
 - Lending of other agents
 - Assets sales
- Public debt – accumulated loans (in part, more or less extensive, to foreign agents)
- Debt monetization – inflation
- Sale of sovereign bonds
- The market for public debt
- Bills – 3 months to 1 year and Treasury bonds – up to 50 years
- Debt management agencies: In Portugal: www.igcp.pt

How to finance the public expenses in face of a high debt

Portugal: Government Bond Issuance

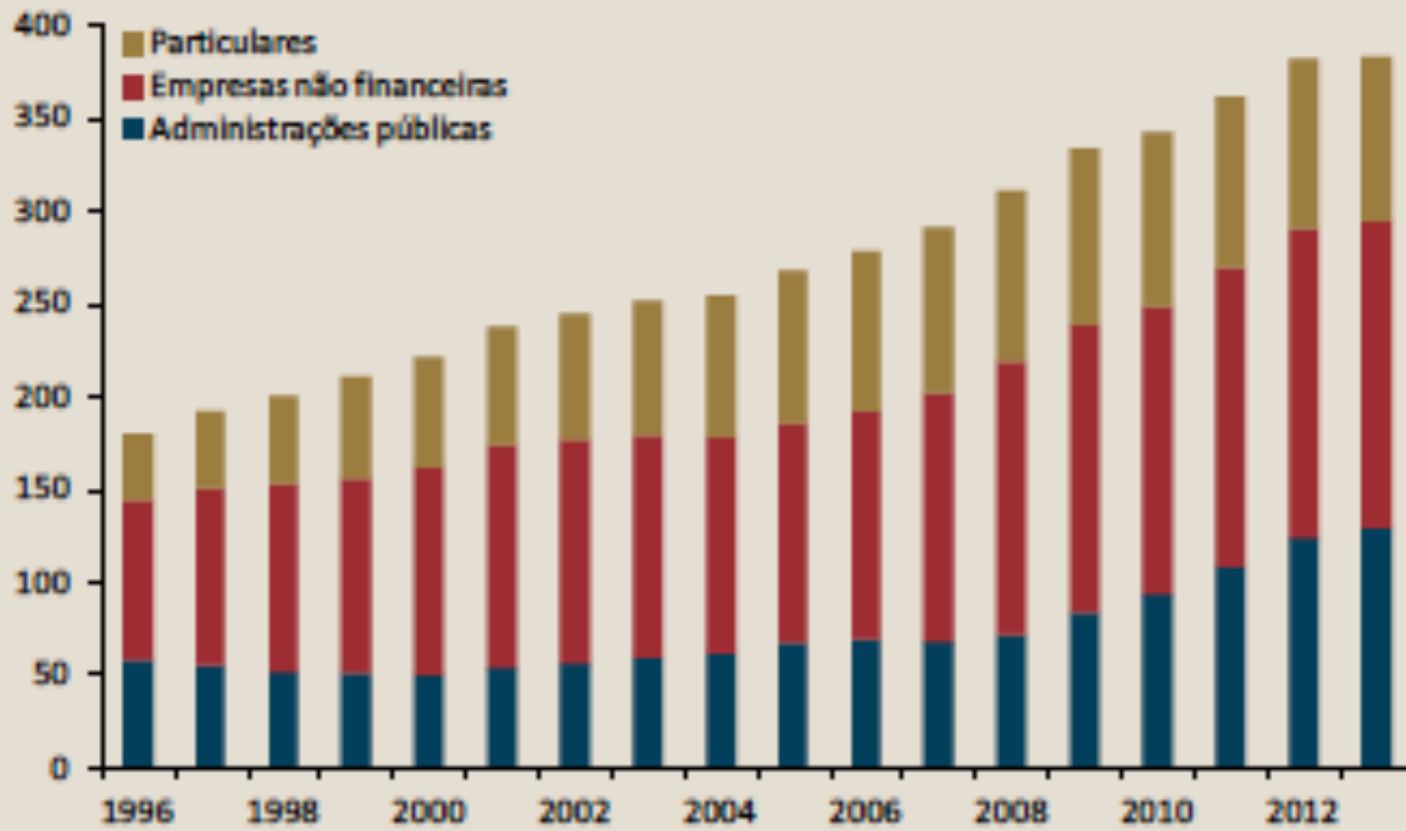
(Billions of euros)



Source: ECB; IGCP; and IMF staff calculations.

PSPP – Public Sector Purchase Programme: Issuance that will be hold by the Eurosystem/ECB

PORTUGAL: DEBT IN THE PUBLIC AND PRIVATE SECTORS (% GDP)

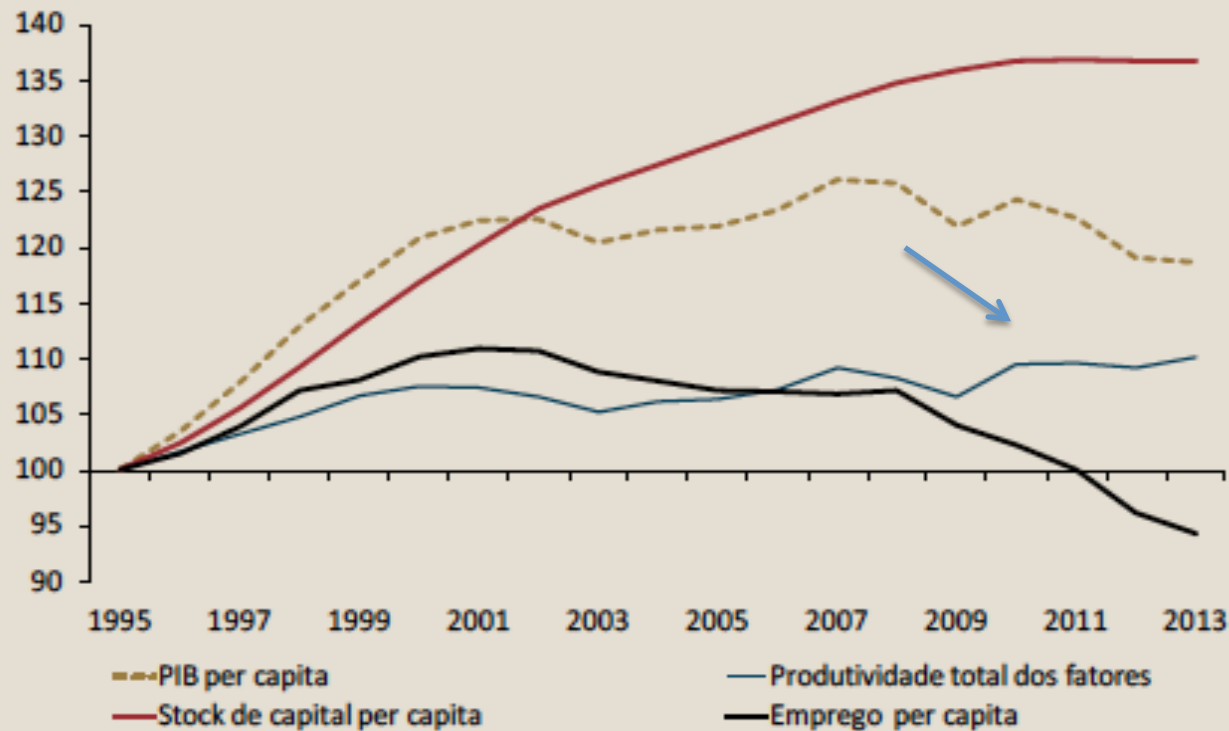


**PRIVATE
AGENTS
ARE
RISKIER
THAN
THE
STATE**

SOURCE: BANK OF PORTUGAL

Portugal: Slow growth pace of total productivity of factors

Gráfico 4 • Evolução dos contributos para a variação real do PIB *per capita* | Índice 1995=100



Fontes: INE e Banco de Portugal.

Nota: Metodologia tem por base uma função de produção *Cobb-Douglas*.

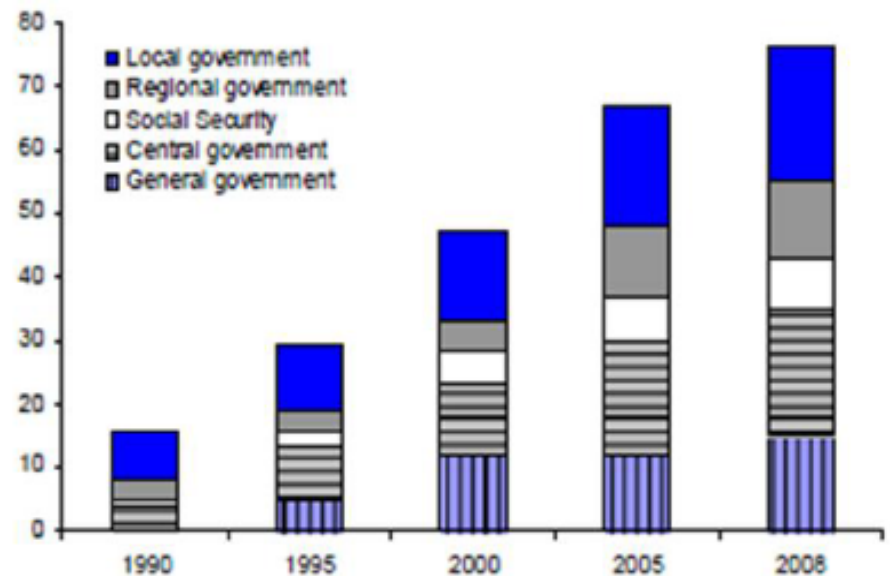
THEORIES

- . DEMAND-SIDE EFFECTS: KEYNES AND HIS CRITIQUES**
- . DEBT SUSTAINABILITY AND ARITHMETIC**
- . FISCAL POLICY COORDINATION**

Fiscal Rules and Principles

- Fiscal policy is traditionally discretionary
- Increasing reliance on rules to:
 - Improve predictability
 - Address political failures
 - Improve credibility
 - Enforce coordination
- Rules at supranational level: Stability and Growth Pact (1997), Fiscal Compact (2012)

Number of fiscal rules in EU member States, by sub-sector

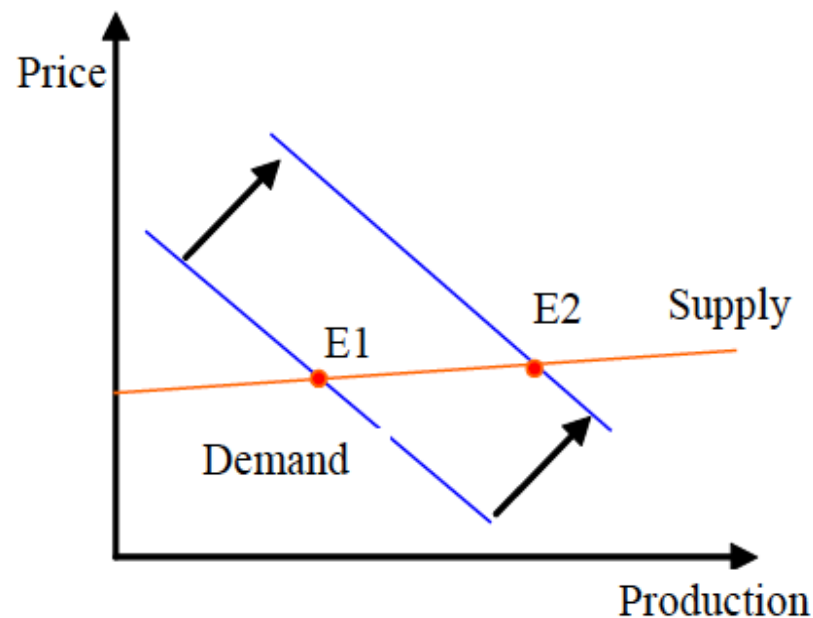


Source: European Commission, *Public finances in EMU*, 2009.

The Keynesian view

- *Keynesian multiplier*
- Limitations
 - Slope of supply curve
 - Crowding-out (interest rate, exchange rate)
 - Ricardian equivalence

Effect of an expansionary fiscal policy



Multiplier in practice

Keynesian multiplier

$$Y=C+I+G$$

$$C=aY+b$$

a= marginal propensity to consume

Multiplier of public spending: $\Delta Y = \Delta G / (1-a)$

Some remarks on the value and effects of the multiplier are necessary:

The multiplier's value is uncertain and highly variable

Possible explanations:

- Big differences among countries – it is higher for big countries
- International coordination of policies increases the multiplier
- Multiplier is higher when there are significant automatic stabilizers (for example, strong social security schemes)

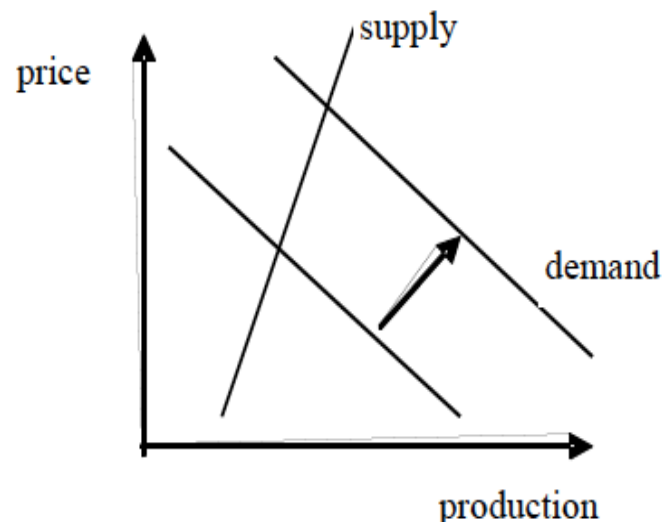
(for more details, see Bénassy-Quéré et al., Box 3.4, pp. 181-182)

PUBLIC SPENDING MULTIPLIER – RESULTS OF THE INSTITUTIONAL MODELS

	Short term: 1 year ou less				Long term: 1 year or more			
	<i>Germany</i>	<i>France</i>	<i>U. K.</i>	<i>USA</i>	<i>Germany</i>	<i>France</i>	<i>U.K.</i>	<i>USA</i>
EU (Quest)	0,9	0,9	1,0		0	0	0	
IMF (Multimod)	1,3	1,3		1,1	-0,2	-0,2		-0,6
OECD (Interlink)	1,5	0,8		1,1	-0,3	0,2		0,1

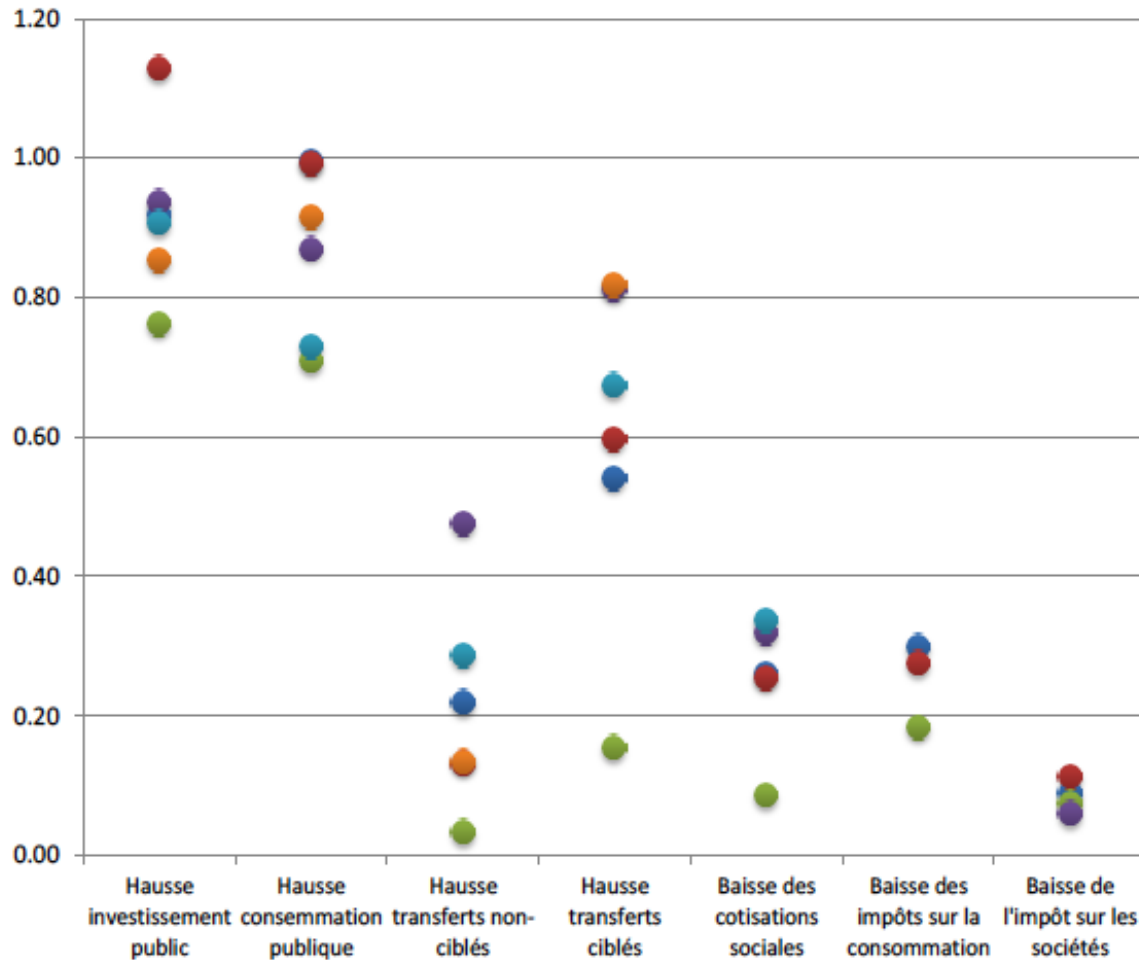
Neoclassical objections

- a) *Financial crowding out* (vertical LM curve or flexible exchange rate with perfect capital mobility)
- b) AND/OR *Ricardian equivalence* (expectation of future taxes)
- c) AND/OR *supply rigidity*: price flexibility, rational expectations.



EMPIRICAL STUDIES ON THE LEVEL OF THE MULTIPLIER

One-year multiplier, endogenous monetary policy in econometric models



Source: based on Coenen et al. (2010)

Alternative methods:

- VAR (Blanchard and Perotti, 2002)
- Event studies (Alesina-Ardagna, 2010, IMF, 2010)

Latest discussion: multipliers higher

- in a recession;
- at the lower bound of monetary policy;
- with uncertainty over solvency

Ricardian equivalence (I)



DAVID RICARDO (1772-1823)

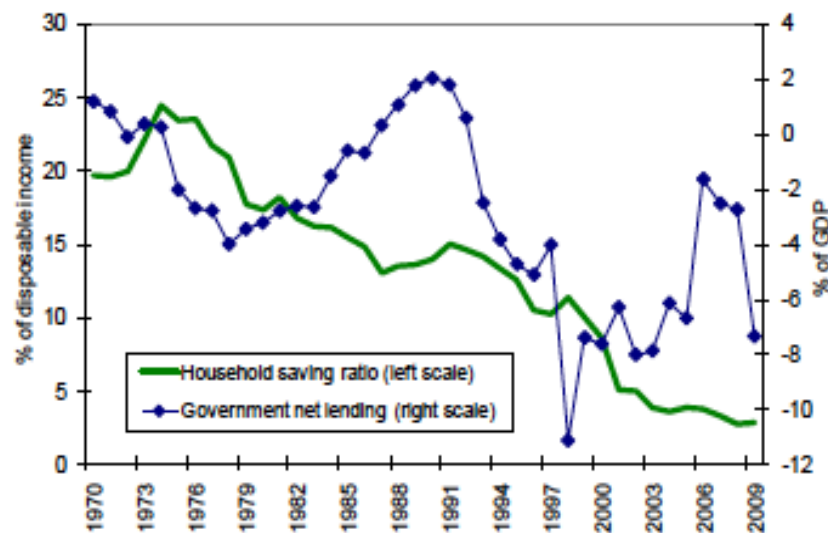
DEFINITION

Once the decision to increase public expenditure is taken, consumers raise **expectations about the evolution of taxes**, assuming that they will increase whatever the current method of financing, debt or taxes. Thus they respond to the increase in public spending by saving (decreasing consumption) to prevent future tax increases for future debt repayment. The expansionist effect of increased public spending is offset by an equivalent decrease in private spending.

Ricardian equivalence (II)

- Important result, but relies on *many assumptions*
 - Rational expectations
 - Unproductive public spending
 - Perfectly functioning credit markets
 - Infinitely-lived households
- Remove one assumption and deficit neutrality goes
- *Empirical evidence* does not confirm full Ricardian equivalence, though partial effects are found

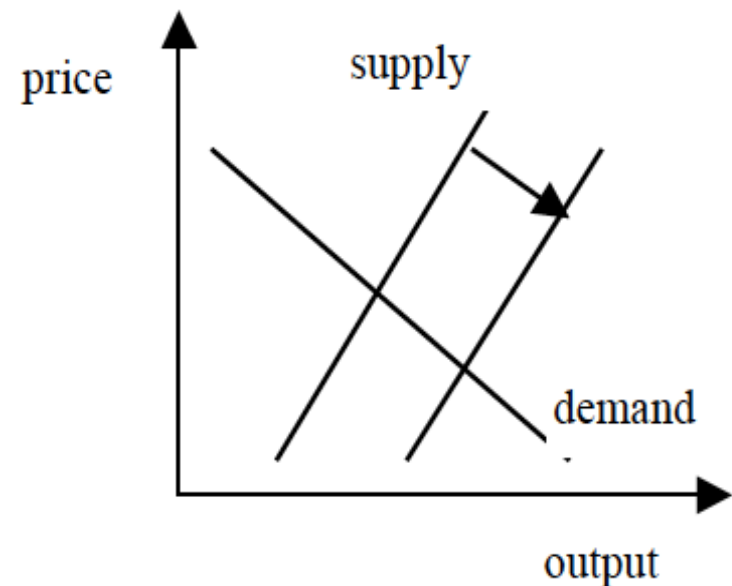
Public deficit and household savings rate in Japan, 1970-2009



Supply-side effects

- Budgetary policy also has supply side effects through both taxes and spending
- Direct effects: positive for (most) tax cuts, negative for (some) spending cuts
- Permanent spending cuts also signal lower taxes in the future, thereby they have supply-side effects
- **Composition** of fiscal adjustments matter

Supply-side effects of a tax cut



THE NEOCLASSICAL PERSPECTIVE ON FISCAL POLICY, A PRIMER

- Increased public spending is ineffective to combat the recession.

More appropriate measures are:

- Decrease in taxes, implying a supply stimulus, and an increase in potential output.
- Decrease in public spending, meaning less future taxes, supply stimulus, increase in potential GDP

Effect of a budget constraint

Perspectives	Effect
Keynesian	Recession
Ricardian equivalence	Neutral
Neoclassical	Expansion

The Austrian view on stabilization policies

BASIC RATIONALE:

As seen before, the problem lies in the scarcity of savings, and arises from artificially lowered interest rates (short term, because in the long term they are determined by time preferences), which led to malinvestments and to an inadequate structure of capital, due to a bad allocation of resources resulting from incentives in this sense (clearly coming from monetary policy and its implication in this market); hence, for example an increase in consumption, is not a solution and will worsen the situation.

What the state must not do:

- To delay bankruptcies, to inject money, or to force the banks to grant more credit.
- Easy money and low interest rates hinder the rise of interest rates to their natural level.
- To favor the maintenance of high wages and high prices ⇒ it hinders sales.
- To stimulate consumption (when it is necessary more savings).
- Increase in public spending ⇒ consumption

What the state may do:

- To reduce spending and taxation
- To reduce mainly the taxes that interfere with savings and investment
- Incentives to credit contraction.

How to avoid recessions and long and deep crises: stop credit inflation.

ONE QUESTION TO BE ANSWERED LATER IN THE COURSE!

Facing a recession: Is it possible to create successive bubbles (for example through monetary creation), supposedly within some degree of control, without risking serious derailment of the economy, i.e., longer and deeper recessions or more accurately depressions?

Debt recourse: from normal to dangerous expediency?!

A high debt creates a dangerous situation due to the uncertainty and indetermination of the future.

“Debt implies a strong statement about the future, and a high degree of reliance in forecasts.”

Nassim Nicholas Taleb, *The Black Swan: The impact of the highly improbable*, 2nd edition (2010), p. 314.

CONTEXT OF THE DEBT

- **“GOOD” DEBT AND “BAD” DEBT**
- **Ability to pay**
- **Origin of the debt**
- **Applications of the money debt:**
- **Consumption/investment**
- **Reproduction of the investment**
- **When and how to do infrastructures?**
- **Solvency and ability to pay**
- **Solvency: assets – liabilities**
- **Ability to pay: Revenues-costs**

DEBT SUSTAINABILITY

- ***Solvency***: borrower's ability to face its commitments
- ***Sustainability***: policy course compatible with solvency at all times in the future
 - Finite horizon: zero net wealth at terminal date
 - Infinite horizon: government can accumulate debt and yet remain solvent; but need to exclude Ponzi / Madoff games => ***transversality condition*** (present value of terminal debt is zero)
- Sustainability is forward-looking by nature and relies on assumptions on future policy and on the ability of the government to collect/increase taxes

Who will pay? How stabilize or to reduce the debt burden

- *Fiscal adjustment*: cut spending, raise taxes
- Real GDP *growth*
- *Monetization* by the central bank
- Default
 - *Restructuring* (rescheduling, haircuts, interest reductions): can be voluntary or forced; raises *coordination* and *comparable treatment* issues solved in the Paris club (public creditors) and the London club (private creditors);
 - *Is orderly restructuring possible?* Collective action clauses (CACs), failed plans for a sovereign-debt restructuring mechanism

The arithmetic of debt (I)

- **Stock-flow** equation: $B = (1+i) B_{-1} + D$ where D is the primary deficit, B is the public debt and i is the nominal interest rate.

- In percentage of nominal GDP:
$$\frac{B}{GDP} = (1+i) \frac{B_{-1}}{GDP_{-1}} \times \frac{GDP_{-1}}{GDP} + \frac{D}{GDP}$$

Denoting by n nominal GDP growth, g real GDP growth and r the real interest rate:

$$b = \frac{(1+i)}{(1+n)} b_{-1} + d \cong (1+i-n) b_{-1} + d \cong (1+r-g) b_{-1} + d$$

- Implications:
 - **Maastricht criteria:** $d + ib = 3\%$; $\pi + g = 5\%$; $b = 60\%$
 - There can be permanent deficits only if growth is high enough (e.g. Europe in the 1970s)
 - If $r > g$, debt stabilization requires a primary surplus

The arithmetic of debt (II)

- **B** – public debt
- **D** – primary deficit
- **b** – ratio (weight) of the debt: % of GDP
- **d** – weight of the primary deficit in % of GDP
- **i** – nominal interest rate
- **r** – real interest rate
- **n** – nominal growth rate of GDP
- **g** – real growth rate of GDP
- **p** – inflation rate
- $n = g + p$
- $i = r + p$

- *Public debt*

$$B = (1 + i) B_{-1} + D$$

- *Ratio of the debt*

$$b = [(1+i)/(1+n)] b_{-1} + d = (1 + i - n) b_{-1} + d = (1 + r - g) b_{-1} + d$$

- *Change in the debt ratio*

$$b - b_{-1} = b_{-1} (i - n) + d = b_{-1} (r - g) + d$$

- *Stabilization of the debt ratio*

For $b = b_{-1}$

the primary deficit must be:

$$d = (n - i) b = (g - r) b + d$$

(total deficit must be: $d + ib$)

POLICIES

. NATIONAL FISCAL POLICY RULES

. FISCAL POLICY IN EMU

. FISCAL POLICY AND THE CRISIS

Desirable properties (of the rules)

The “good rule” according to Kopits and Symansky (1998):

- i. clear definition,*
- ii. transparent public accounts,*
- iii. simplicity,*
- iv. flexibility – in particular regarding the capacity to react to exogenous shocks–,*
- v. policy relevance in view of the objectives pursued,*
- vi. capacity of implementation with possibility of sanctioning non-observance,*
- vii. consistency with the other objectives and rules of public policies,*
- viii. accompanied by other effective policies*

FISCAL RULES MAKE A DIFFERENCE

Type	Balanced budget rule (BBR) Debt rule (DR) Expenditure rule (ER) Revenue rule (RR)
Status	Statutory or constitutional (LC) Political or coalitional agreement (PC)
Coverage	Central or general government (CGGG) Local or regional government (LRG)
Enforcement	Sanctions or automatic correction mechanism (SCM) No sanctions or automatic correction mechanism (NSCM)


- On average, the **primary balance** is by **0.62 pp of GDP higher** (improvement) in countries introducing a fiscal rules (compared to countries without such a rule).
- This effect is even **stronger** if fiscal rules are **enshrined in law or constitution**.
- When comparing different types of rules:
 - **strongest effect** with **balanced budget rules** at constitution level,
 - **debt rules** show **partly** significant results,
 - **expenditure rules** show **no significant effect** on aggregated fiscal variables.

Source: Nerlich and Reuter (2012).

Why a supranational rule?

- Externalities
 - Incentive to run deficits with a fixed-exchange rate
 - Financial cost of debt default (banks holdings of government debt)
 - Economic cost of a debt default (risk of pressure on the ECB to inflate away)
- Political economy
 - External discipline as a substitute or complement to domestic discipline

The 2012 reform (“six-pack” and “Fiscal Compact”)



- Earlier sanctions
- Reverse qualified-majority voting
- Debt rule
- Broadened surveillance (scoreboard)
- National ownership:
 - balanced-budget rule at constitutional level or equivalent limiting structural deficits to 0.5% of GDP
 - independent fiscal committees (with limited mandate)

Case study #2. Germany

Late 1960s - late 2000s

- **Golden rule** of public finances: only investment to be financed by debt 'except macroeconomic disturbance'

Two problems:

- Extensive notion of 'macroeconomic disturbance'
- No correction mechanism
- Inconsistency with SGP (that does not distinguish between current and investment spending)

2009-

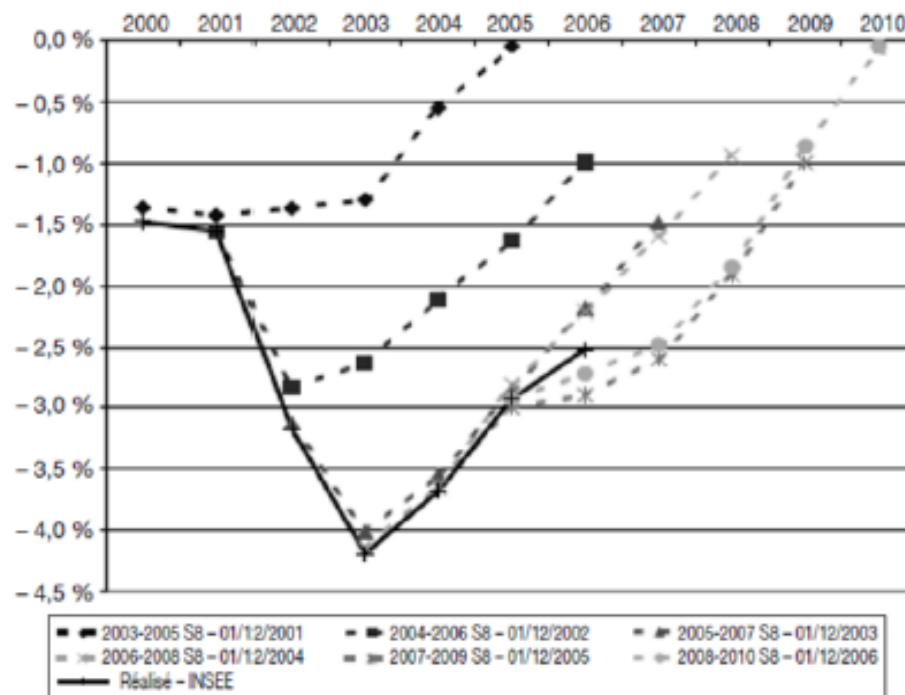
The debt brake (*Schuldenbremse*)

- **Fiscal rule**: structural deficit <0.35% (Federal government) and <0% (länder)
- **Control account**: deficit <1% at any time.
- **Exceptional circumstances** (natural disaster): more deficit allowed but amortization plan
- **Progressive phase-in** (2016).

The failure of the Stability and Growth Pact

- SGP: 1997, amended in 2005
- Preventive arm
 - Medium term objective (MTO)
 - ‘Stability’ (Eurozone) and ‘convergence’ (non-Eurozone) programs
- Dissuasive arm (‘Excessive Deficit Procedure’ – EDP):
 - Advance warning
 - Recommendation to correct excessive deficit within given timeframe
 - Possible sanctions

French stability programmes: objectives and outturns



Case study #1. The UK

1998-2008

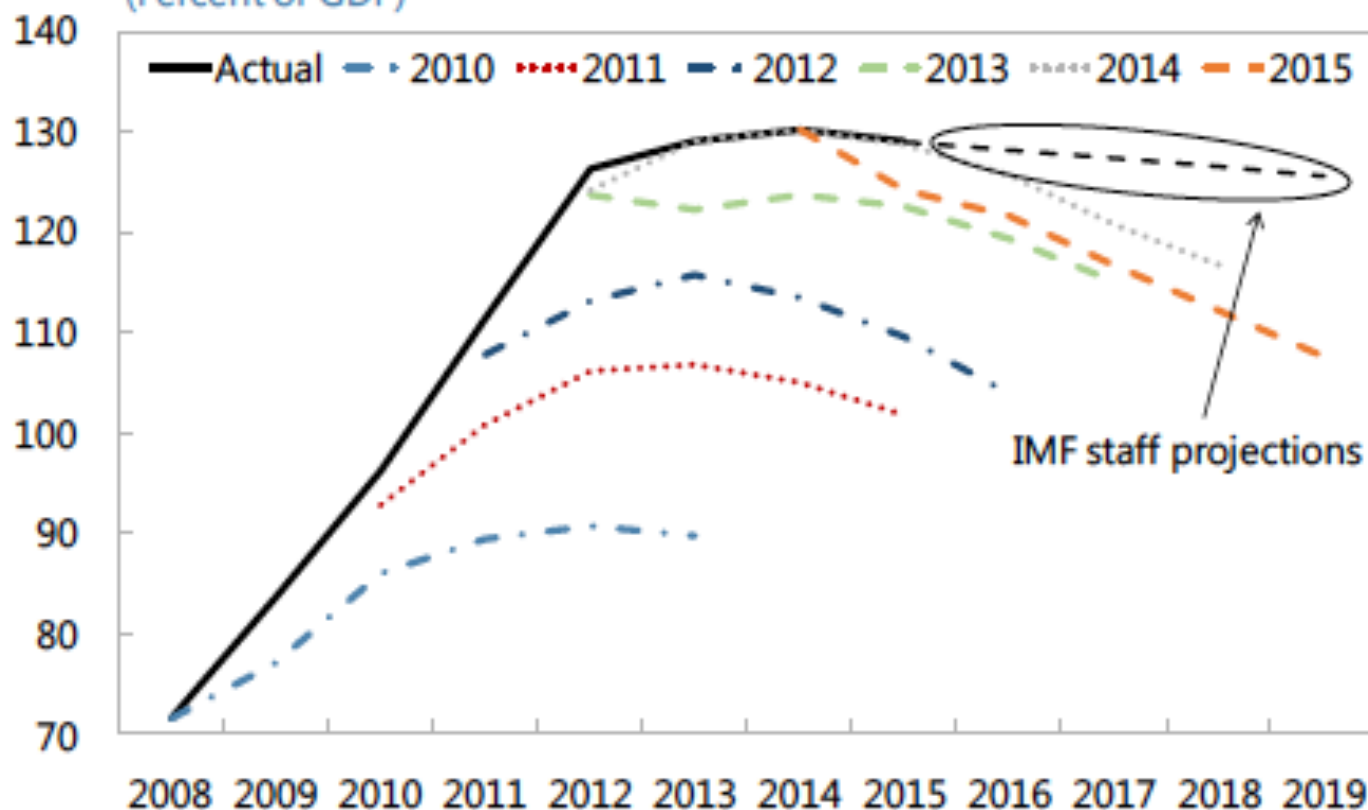
2010-

- *Golden rule* (no borrowing for current spending)
 - *Sustainable investment rule* (debt ratio 40% over the cycle)
- Two problems:
- Who determines what is the cycle?
 - How to take contingent liabilities into account?
- *Fiscal mandate*: structural deficit < 1% of GDP over 5 years
 - *Office for budget responsibility*: independent fiscal council in charge of forecasts and assessment.

IMF Forecasts to the Portuguese public debt in the medium term

Portugal: Medium-Term Public Debt Targets¹

(Percent of GDP)

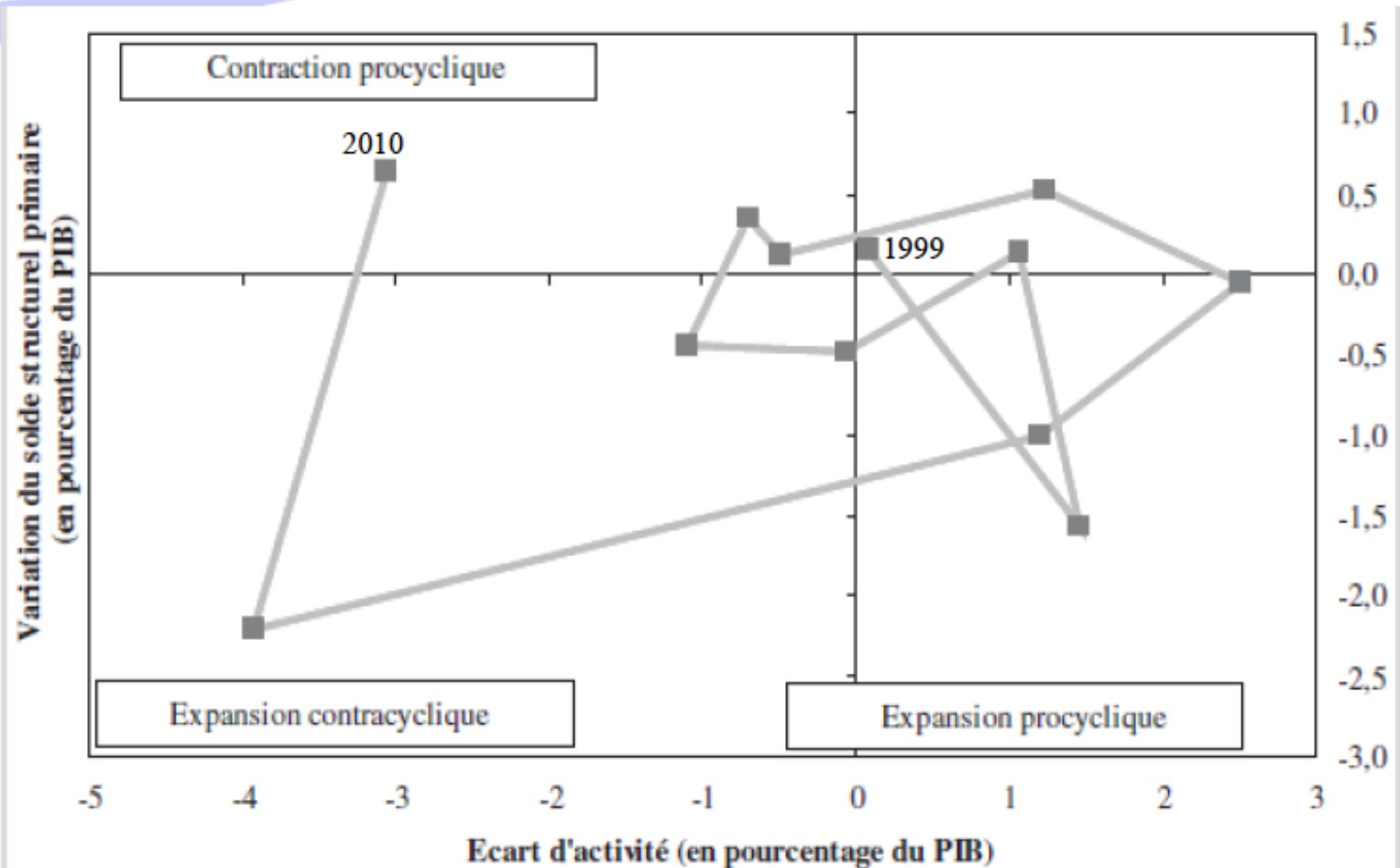


Sources: Authorities' Stability Program and Fiscal Strategy Documents.

¹Consistent with the authorities' annual medium-term fiscal strategy.

COUNTERCYCLICAL FISCAL MEASURES: A MYTH?

Output gap and fiscal impulse in the euro area

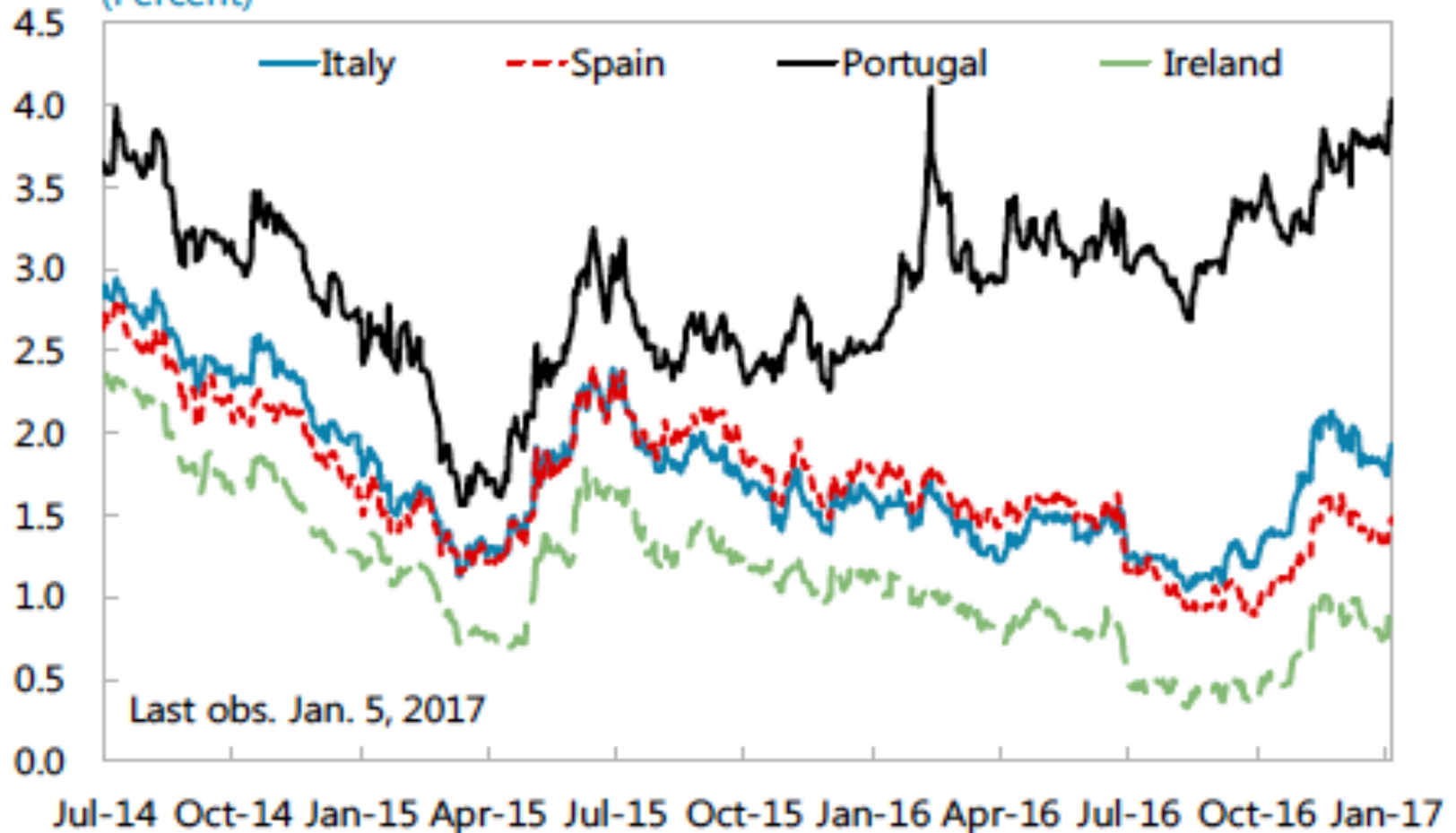


Source: OECD EO 90.

BOND SPREADS BETWEEN EURO AREA COUNTRIES

10 Year Government Bond Yields

(Percent)

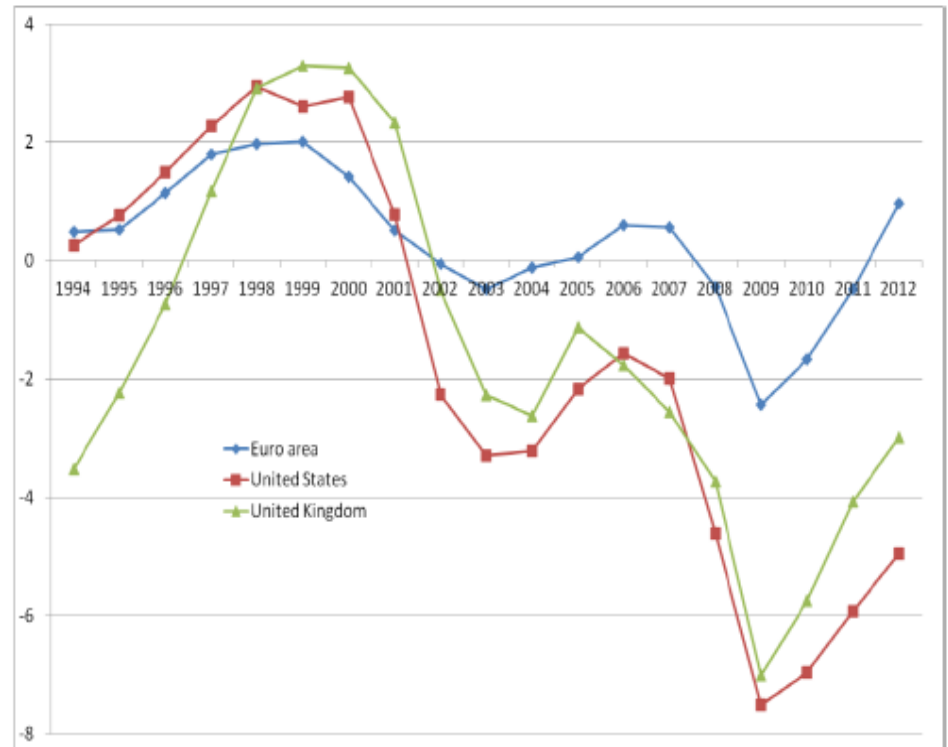


Last obs. Jan. 5, 2017

Source: Bloomberg.

- Fiscal space dramatically reduced due to concerns over:
 - Sustainability (Portugal, Greece)
 - Implicit liabilities (Ireland)
 - Transparency (Greece)
 - Macro conditions (Spain)
- Fiscal consolidation weights on output (see current debate on multipliers) and is socially costly...
- ... but many countries have no choice but to consolidate upfront

Structural primary balance (% of GDP)



Source: OECD EO91.

Institutions matter also

Tasks of fiscal councils

	Forecasting	Costing of policy initiatives	Evaluation of fiscal transparency	Ex-post evaluation of fiscal policy	Ex-ante evaluation of fiscal policy	Complement to fiscal rules	Evaluation of fiscal sustainability	Normative recommendations	Analysis of broader issues
Austria (Government Debt Committee 1997)	X			X	X	X	X	X	
Belgium (Public Sector Borrowing Requirement Section of the High Council of Finance 1989) ¹⁾				X	X	X	X	X	
Canada (Parliamentary Budget Office 2008)	(X) ²⁾	X ³⁾	X	X	X	X	X		
Denmark (Economic Council 1962)	X			X	X		X	X	X ⁴⁾
Germany (Council of Economic Experts 1963)	(X) ⁵⁾		(X)	(X) ⁶⁾	(X) ⁶⁾	(X) ⁶⁾	(X) ⁶⁾	(X) ⁷⁾	X ⁶⁾
Hungary (Fiscal Council 2008)	X	X	X	X	X	X	X		
Netherlands (Central Planning Bureau 1947)	X	X	X	X	X	X	X		X ⁸⁾
Slovenia (Fiscal Council 2010)	(X) ⁹⁾		X ¹⁰⁾	X	X	X	X		(X) ¹¹⁾
Sweden (Fiscal Policy Council 2007)	(X) ¹²⁾		X	X	X	X	X	X ¹³⁾	X ¹⁴⁾
UK (Office for Budget Responsibility 2010)	X			X	X	(X) ¹⁵⁾	X		
US (Congressional Budget Office 1975)	X	X		X	X		X		X ¹⁶⁾

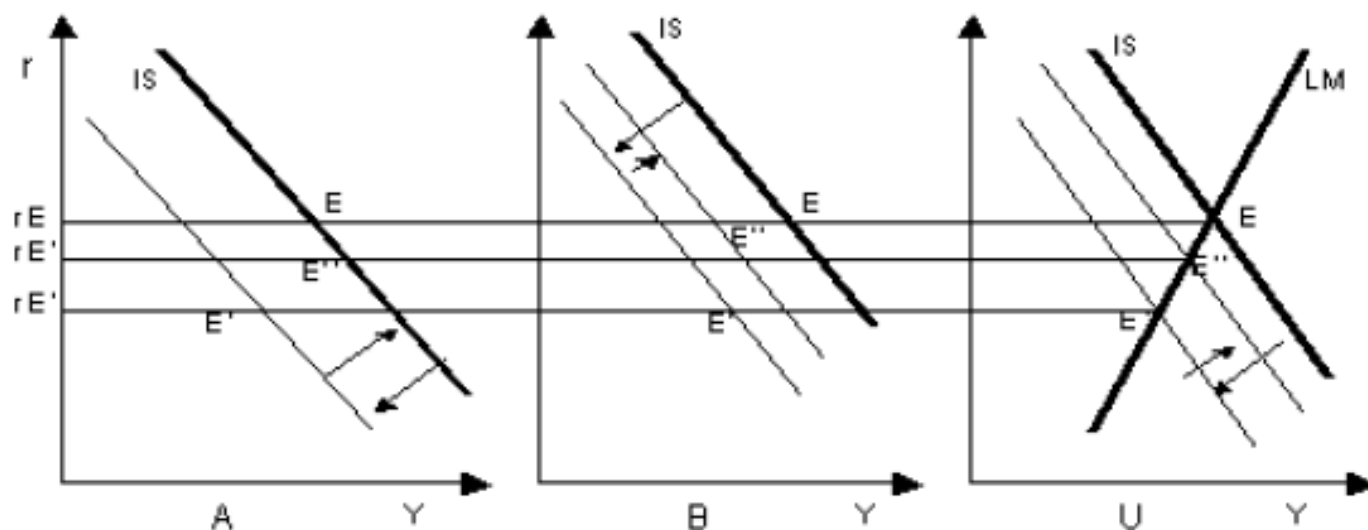
Source: Calmfors and Wren-Lewis (2011).

Towards a fiscal union?

- Need for better macro risk-sharing mechanisms in EMU
- Fiscal risk-sharing can take several forms:
 - Intertemporal (traditional stabilization function);
 - Countercyclical transfers from the center (“common fiscal capacity”)
 - Insurance against tail risk (EFSF, ESM; common backstop for bank resolution)
 - And can be supported or not by common debt issuance (“blue bonds”/“red bonds”, Eurobills...)
- Objections:
 - Fiscal responsibility not yet fully restored at national level
 - “Common pool” may create deficit bias
 - Confusion with allocative function of EU budget (e.g. EU tax to finance common goods); democratic accountability is today mostly national

Fiscal policy coordination

- Why co-ordinate?
 - Provision of public goods (infrastructure, R&D, financial stability...)
 - Internalize policy externalities
 - Political economy (peer pressure, shared fiscal responsibility vis-à-vis the ECB)
- Fiscal policy spillovers in EMU





“How about ‘No new taxes after these new taxes’?”