Global Institutional Economics

Part 1.4

Euro-zone crisis: Problems & solutions

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Literature

- Self-Fulfilling Crises in the Eurozone (De Grauwe & Ji, 2012)
- Europe's non-solution: the 'bazooka' turned on itself (Auerbach, 2011)
- Only a more active ECB can solve the euro crisis (De Grauwe, 2011).
- Toward a Fiscal Union for the Euro Area, (Allard, C. et al (IMF, 2013)

Outline

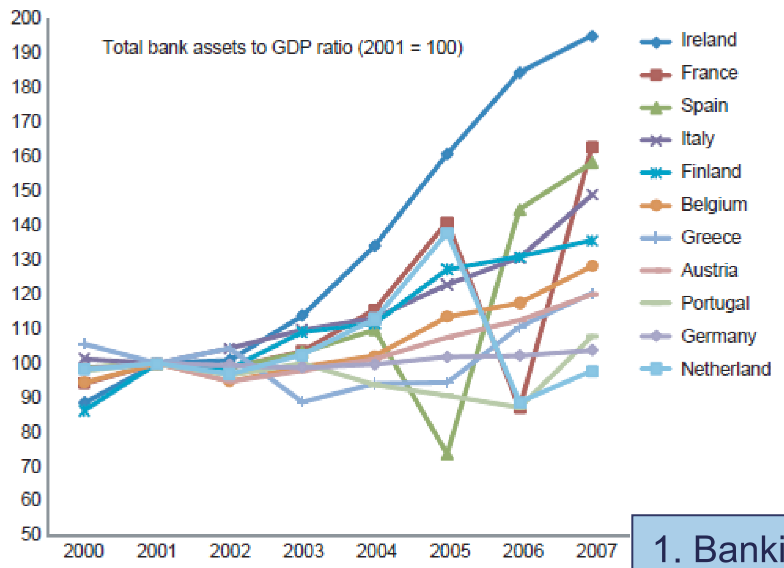
- Eurozone crisis
  - Run-up to the crisis:
    - Building-up imbalances
- Eurozone is not an optimum currency area
- Built-in self-fulfilling elements
- Resolving the crisis
  - Short run: Macro stabilization
  - Long run: Completing the monetary union

Building-up imbalances

The build-up of European imbalances

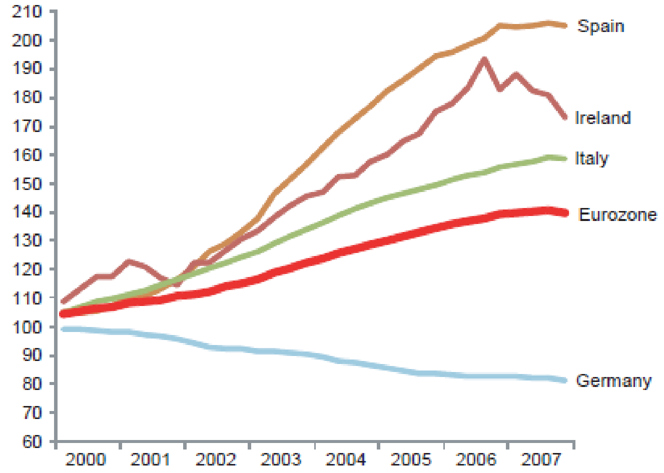
(Four figures from Baldwin & Gros, 2010)

Figure 1. Growth in bank-asset-to-GDP ratios, EZ12, 2000–2007



Source: European Banking Federation and Eurostat.

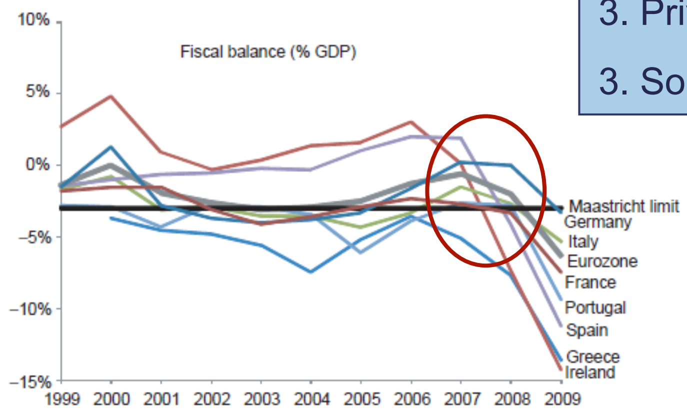
Figure 2. House price trends, EZ12, 2000–2007



Source: OECD online database.

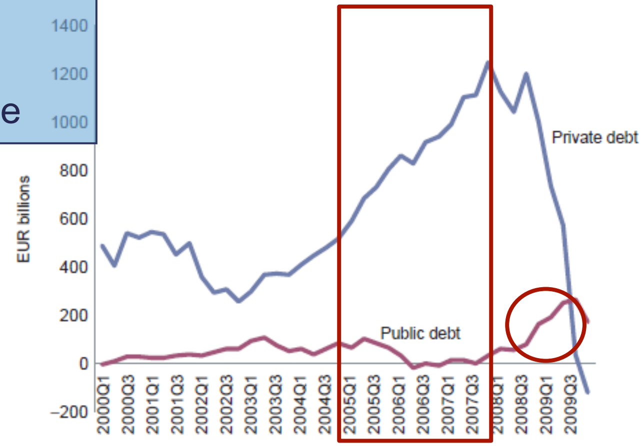
1. Banking bubble
2. Housing bubble
3. Private debt surge
3. Sound public finance

Figure 4. Deterioration of government deficits



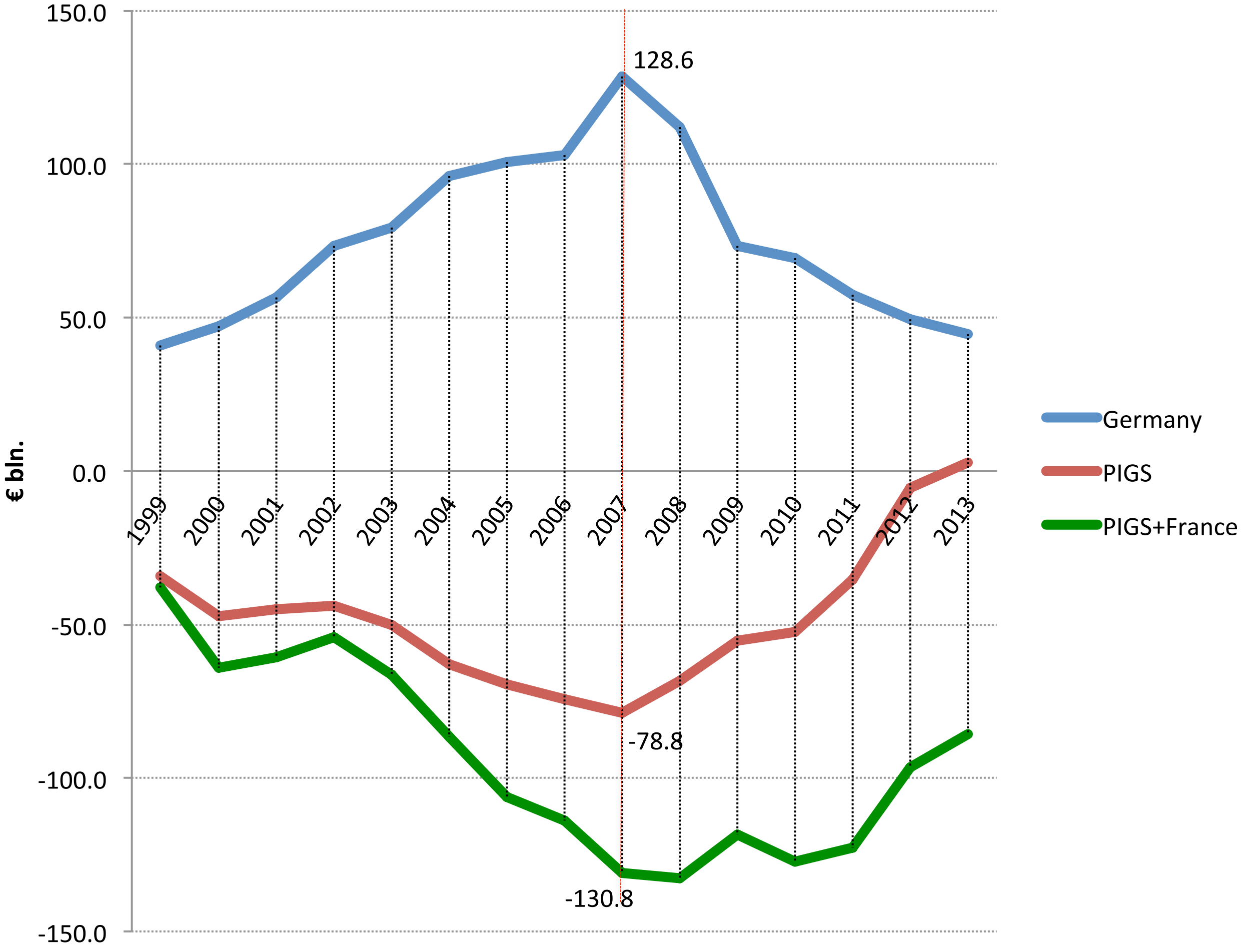
Source: Eurostat. General government deficit (–) and surplus (+).

Figure 3. Eurozone private and public debt



Source: ECB (moving average of first difference over four quarters).

The vehicle of the problem
Trade balance (DE vs PIGS)



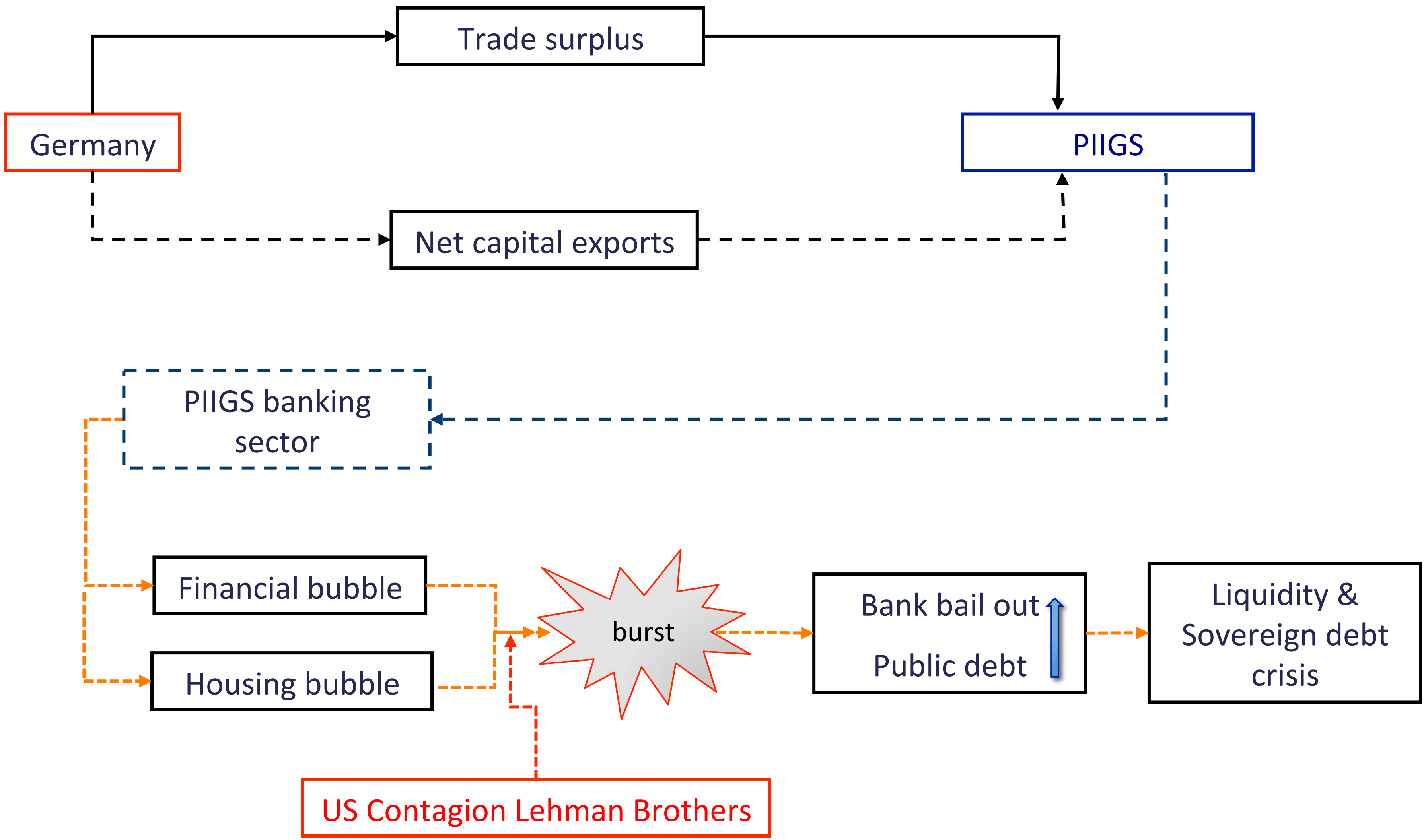
German trade surplus is …

a mirror picture of PIGS trade deficit

Causes for crisis

- Similar disease as in the case US - Asia
- Germany ran huge trade surpluses in trade with PIGS …
- …capital flows running in the opposite direction (financial sector, real estate)
- Consequences:
  - Debt overhang by private sector in PIIGS,
  - Governments stepping in with massive bank bail-outs
  - i.e. excessive private debt → resulting in sovereign crises

Eurozone: building-up imbalances and crises



Eurozone: Badly-designed MU

- Not optimal currency union
- No fiscal & transfer union
- Solidarity? What solidarity?
- *No-bailout clause* by the ECB
- But constraints on fiscal policies (SGP)
- Built-in Self-fulfilling elements

Self-fulfilling crisis

Self-Fulfilling Crises in the Eurozone (De Grauwe & Ji, 2012)

Fragility of *Eurozone*

- Eurozone countries are more prone to experience a sovereign debt crisis than countries not part of a MU
- Resulting from the essential feature of a MU:
  - Members of a MU issue debt in a currency over which they have no control
  - As a result, the governments cannot give a guarantee that the cash will always be available to pay out bondholders at maturity.
- No problem for '*stand-alone*' countries
  - Can always call upon the central bank to provide the liquidity
  - Central bank as a '*Lender of last resort*'

Fragility

- Absence of a guarantee creates fragility
- Member countries are susceptible to movements of distrust:
  - When investors fear some payment difficulty, e.g. triggered by a recession, they sell the government bonds
- This has two effects:
  - It raises the interest rate,
  - and leads to a liquidity outflow (as the investors look for safer places)

Fragility

- Liquidity crisis can easily degenerate into a solvency crisis
- Interest rate shoots up and the country is likely to be pushed into a recession
  - reducing government revenues and increasing the deficit and debt levels
- Combination of increasing interest rates and debt levels can push the government into default

Self-fulfilling elements

- When investors fear default, they act in such a way that default becomes more likely.
- A country can become insolvent because investors fear default.

Fundamental problem of a country in the MU

- Governments in a monetary union that cannot rely on a lender of last resort face a fragility problem:
  - their liabilities (bonds) are liquid and can be converted into cash quickly,
  - while government assets (physical assets, claims on taxpayers) are illiquid.
- In the absence of a central bank that is willing to provide liquidity, these governments can be pushed into a liquidity crisis
  - because they cannot transform their assets into liquid funds quickly enough.

Built-in defects of MUs

- In good times, investors’ trust will be built upon the “MU effect”,
  - notwithstanding the fundamentals of a particular member country
- When, however, market sentiments turn against a country
  - large movements in the spreads occur over short periods
  - whereby the latter appear to be dissociated from the fundamentals

Built-in defects (2)

- Financial markets systematically misprice the MU country risks
  - in good times, markets under-estimate the risks of MU countries,
  - while during the crisis investors over-estimate the risks
- This, in turn:
  - promotes building-up of bubbles, and
  - worsens the recovery prospects

10-year Government bond interest rate

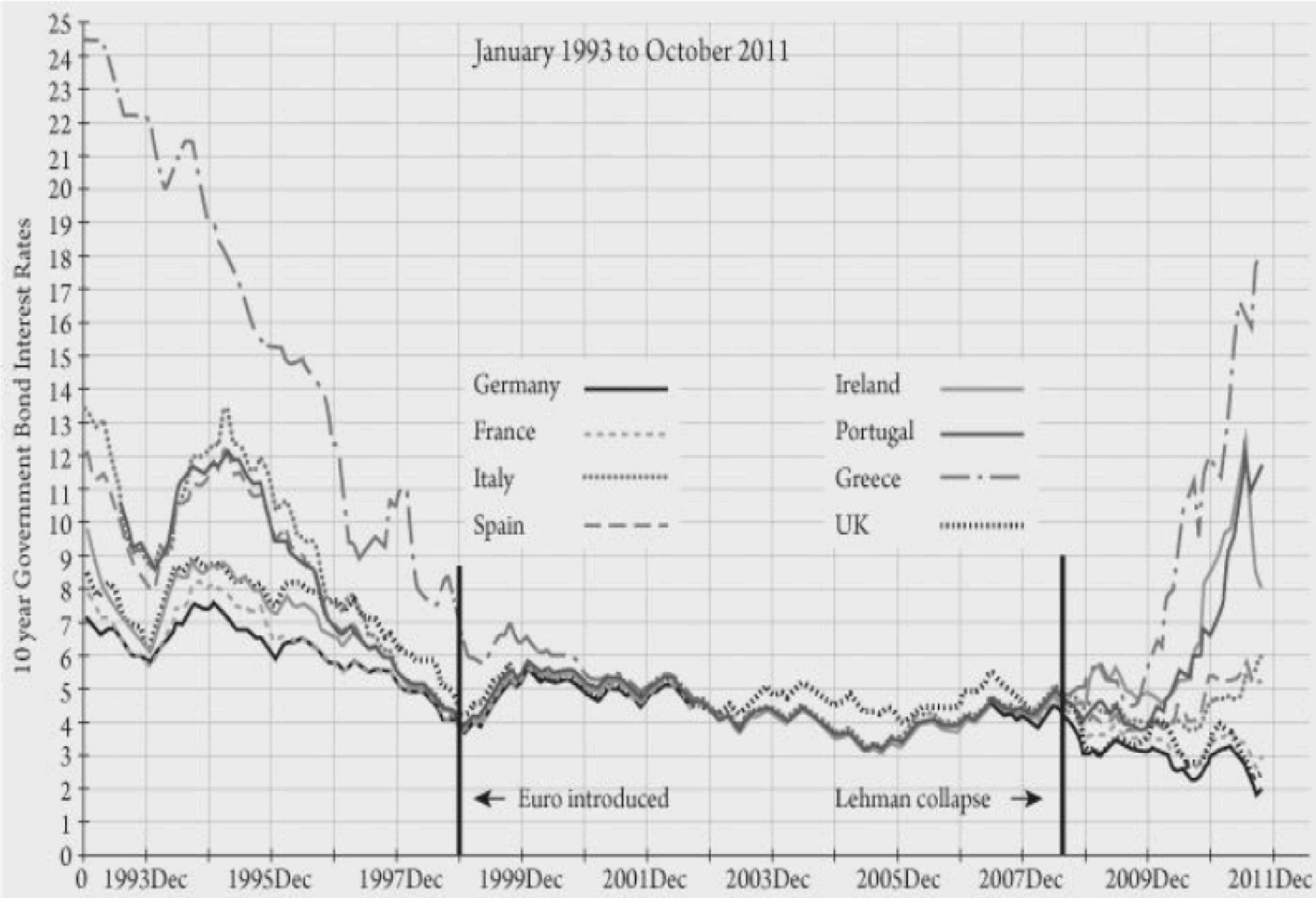
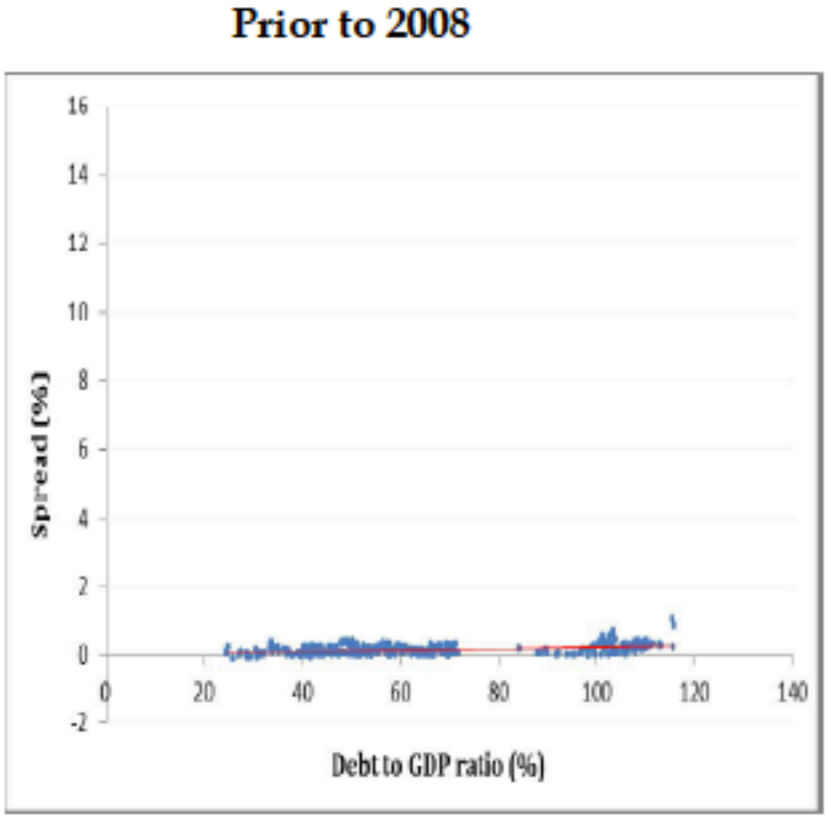


Figure 6. Spreads and debt-to-GDP ratios in eurozone



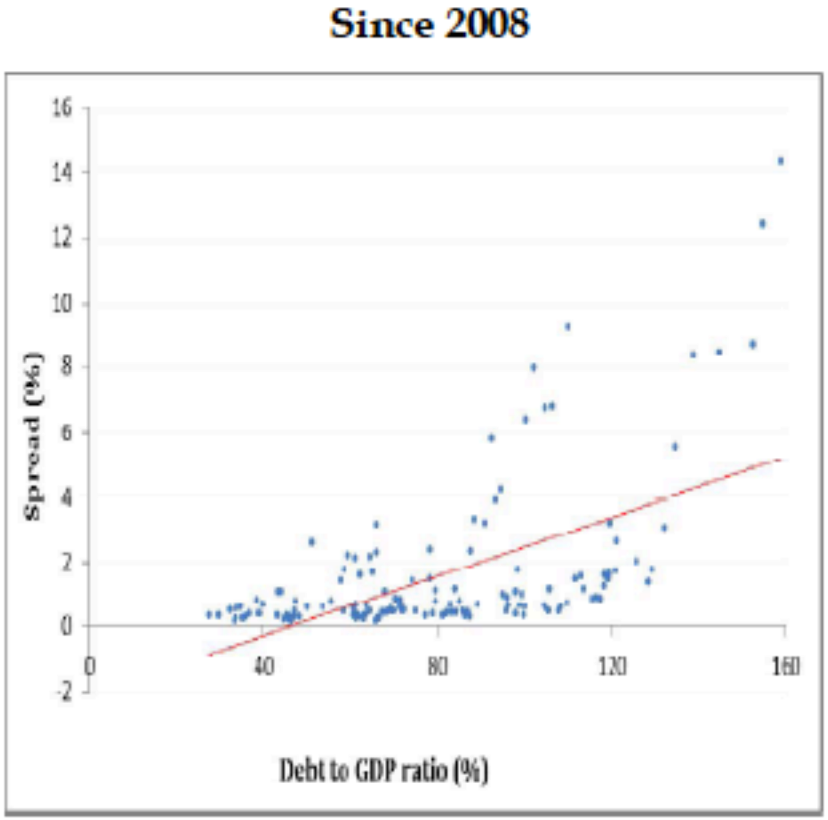


Figure 4. Spreads and debt-to-GDP ratio in eurozone (2000Q1-2011Q3)

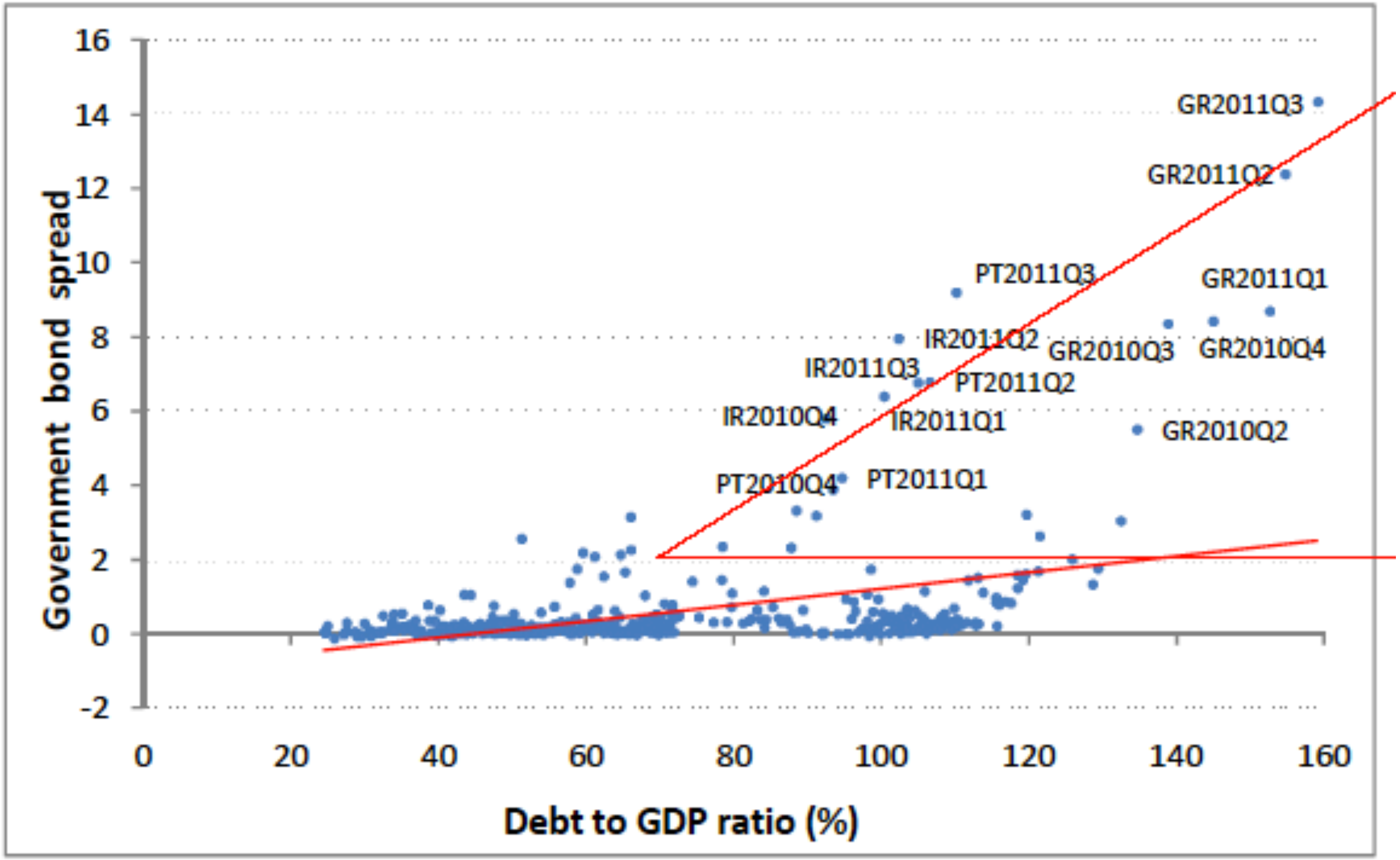


Figure 7. Spreads and debt-to-GDP ratios of 'stand-alone' countries

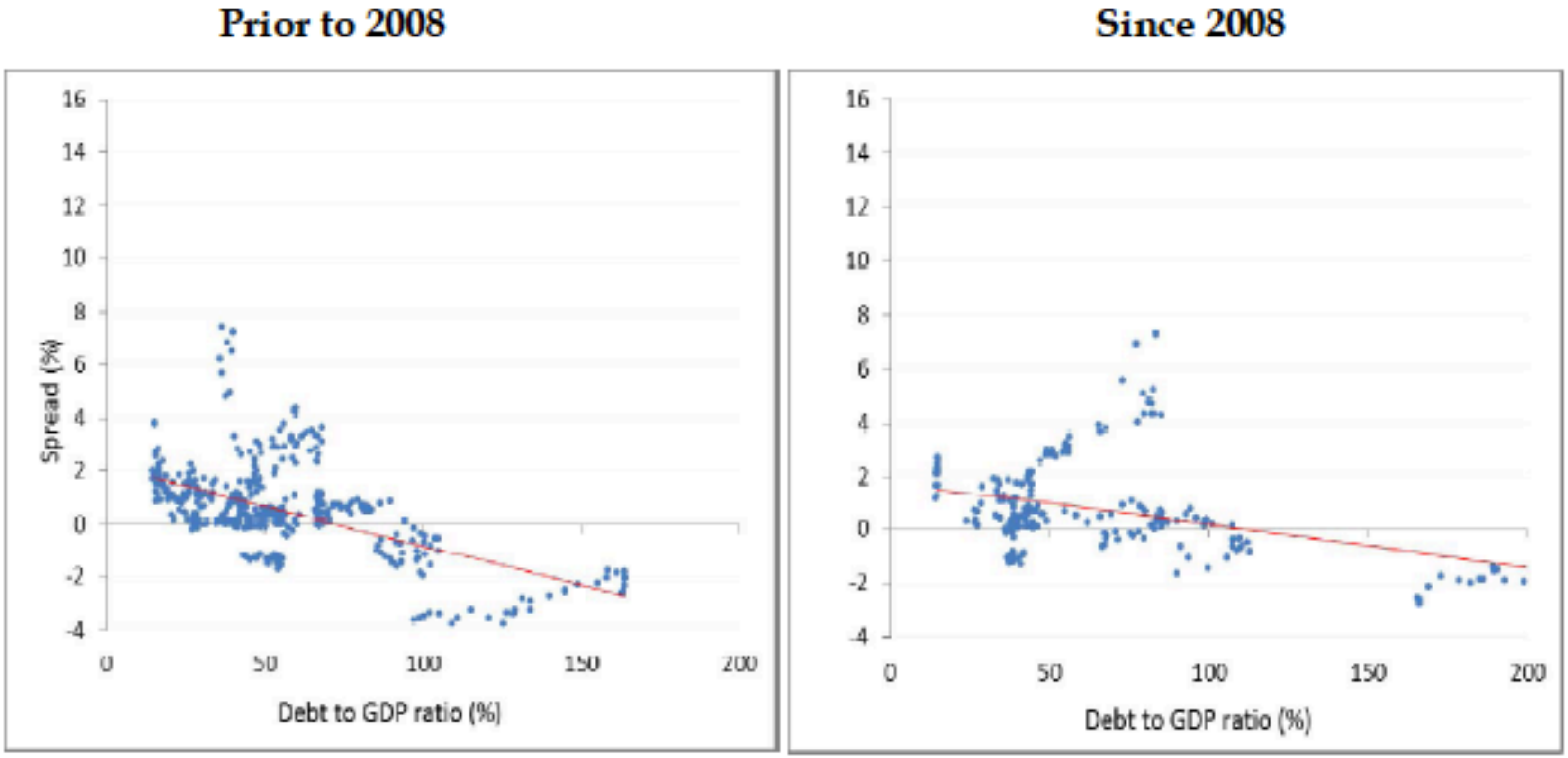


Table 4. Long-term government bond rate spread against Germany (%)

	(1) Total sample	(2) Pre-crisis_	(3) Post-crisis
Current account GDP ratio	-0.0408*	-0.0240*	-0.0092
	[0.0208]	[0.0134]	[0.0244]
Debt to GDP ratio	0.0146*	0.0164	0.0190**
	[0.0078]	[0.0133]	[0.0083]
Debt to GDP ratio*Eurozone	0.0649***	-0.0069	0.0844***
	[0.0198]	[0.0141]	[0.0288]
Exchange rate against euro	-0.0283***	-0.0324***	-0.0200**
	[0.0067]	[0.0104]	[0.0076]
Country fixed effect	controlled	controlled	controlled
Observations	828	576	252
R squared	0.7669	0.9230	0.7981

Standard errors in brackets
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

- Before the crisis markets disregarded the fundamentals (d/GDP),
- while after the crisis markets more than proportionally punished EZ countries with poor fundamentals

Discussion

What’s wrong with the EuroZone?

Group 1

Compare the US and EZ’s monetary union:

- Differences
- Why excessive trade deficits in one of the countries is a problem in EZ, but not in the US?

Group 2

Consider optimal currency area (OCA)

- Should Greeks et co. leave the imperfect EZ?
- Internal cost of bail-out vs. troika
- Benefits vs. costs of autonomous monetary & fiscal policy

Resolving the crisis

Part 1: Short run: Macro stabilization

Part 2: Long run: Fiscal consolidation & Transfer union

Part 1

Short run: Macro stabilization

Simple IS – LM framework

Intermediate macroeconomics, (Barde, 2010)

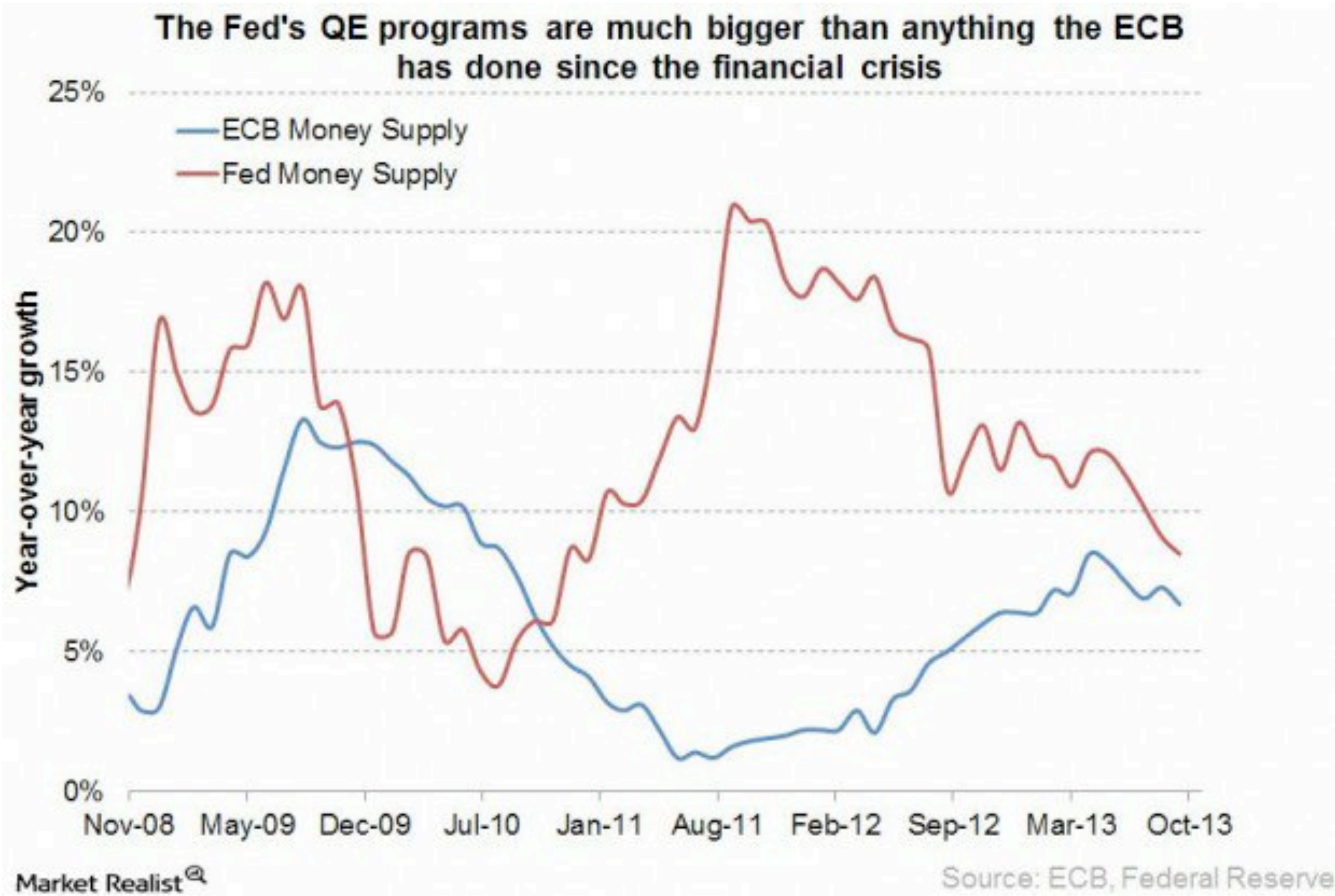
Did we learn from history ?

- ZDA: Yes
  - Fed: Bernanke (scholar of Great Depression & Japan)
    - Liquidity, QE
  - Government:
    - Bankbailout, Oct 2008 ($ 700 bln)
    - Stimulus, Feb 2009 ($ 831 bln)

- EU: No
  - EC: No common stimulus (only an agreement on "permitted" stimulus, € 200 + 30 bln)
  - ECB: No-bailout clause

Non-conventional monetary policy

ECB vs. FED

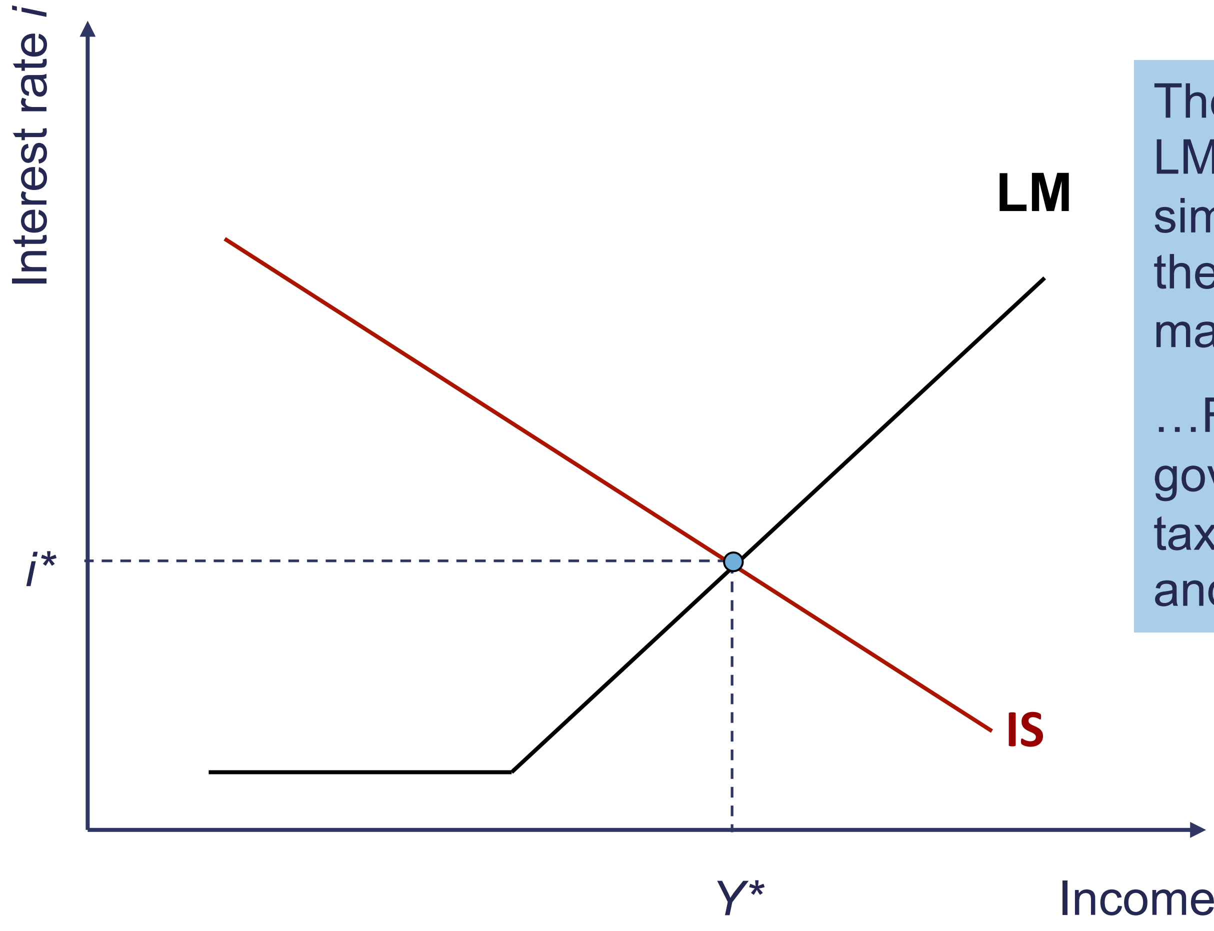


Short run: Macro stabilization

- Key: Stabilizing the depressed economies and restoring economic growth
  - Using macroeconomic policies,
  - Expansionary fiscal and monetary policies

- IS-LM model:
  - A good analytical tool for assessing macro policies
  - Finding optimal policy mix affecting:
    - Aggregate demand, interest rate, output and employment

IS-LM: Macroeconomic equilibrium and policy

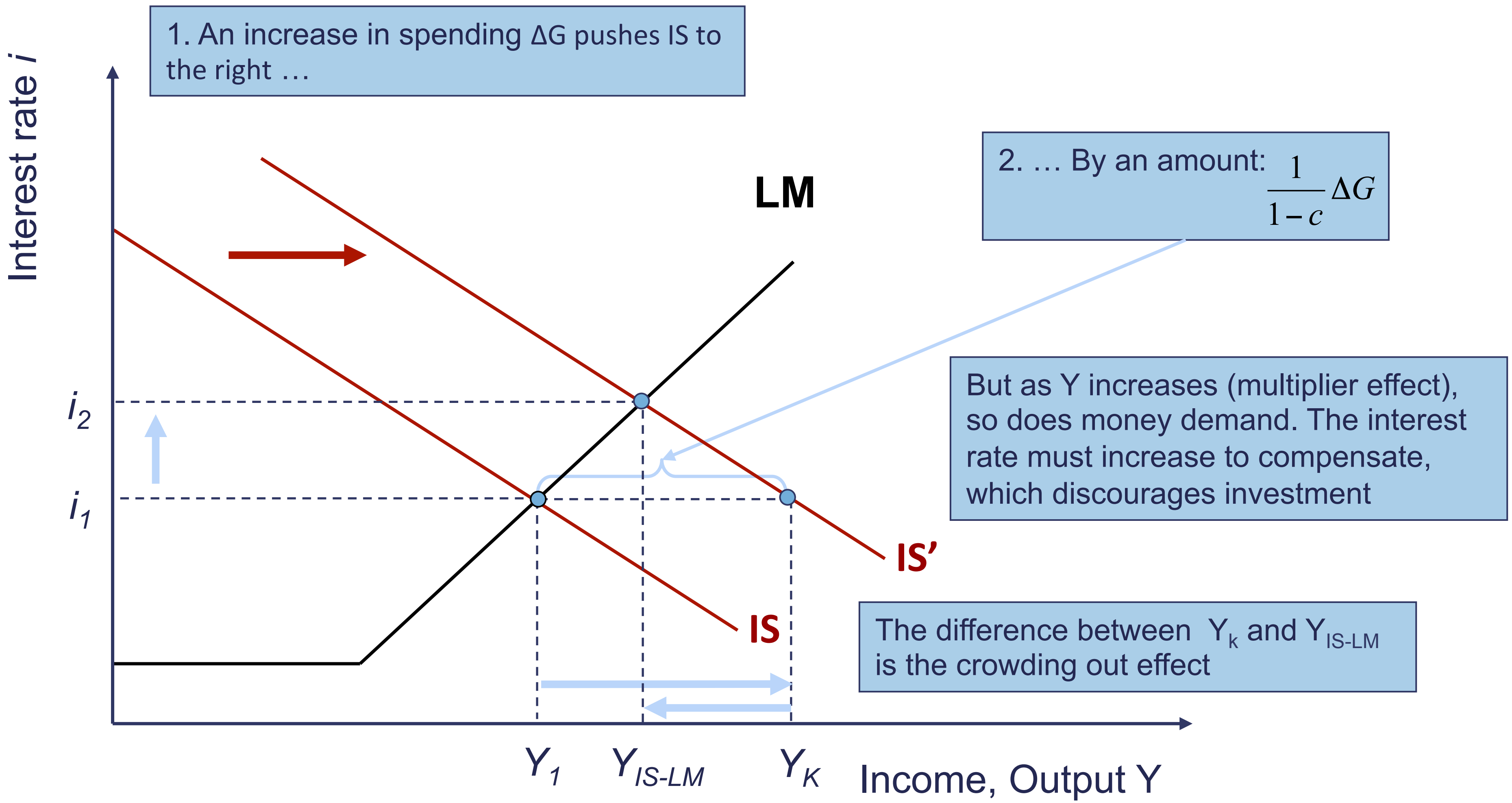


The intersection of IS and LM represents the simultaneous equilibrium on the goods and the money market…

…For a given value of government spending G, taxes T, money supply M and prices P

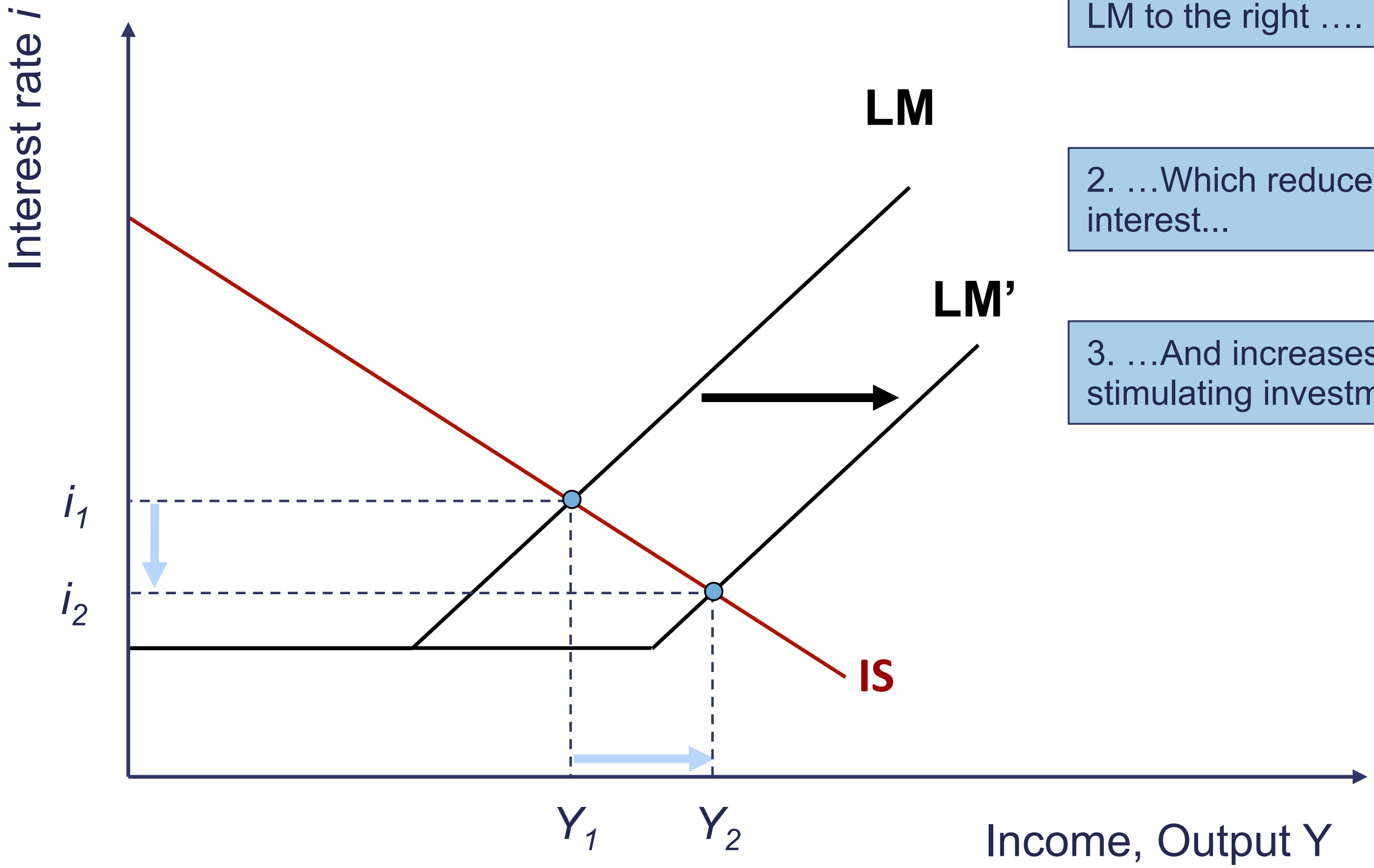
Macroeconomic equilibrium and policy

Impact of public investment (fiscal stimulus)



Macroeconomic equilibrium and policy

Impact of monetary policy (monetary stimulus)



1. An increase in money supply shifts LM to the right ….

2. …Which reduces the rate of interest...

3. …And increases output by stimulating investment.

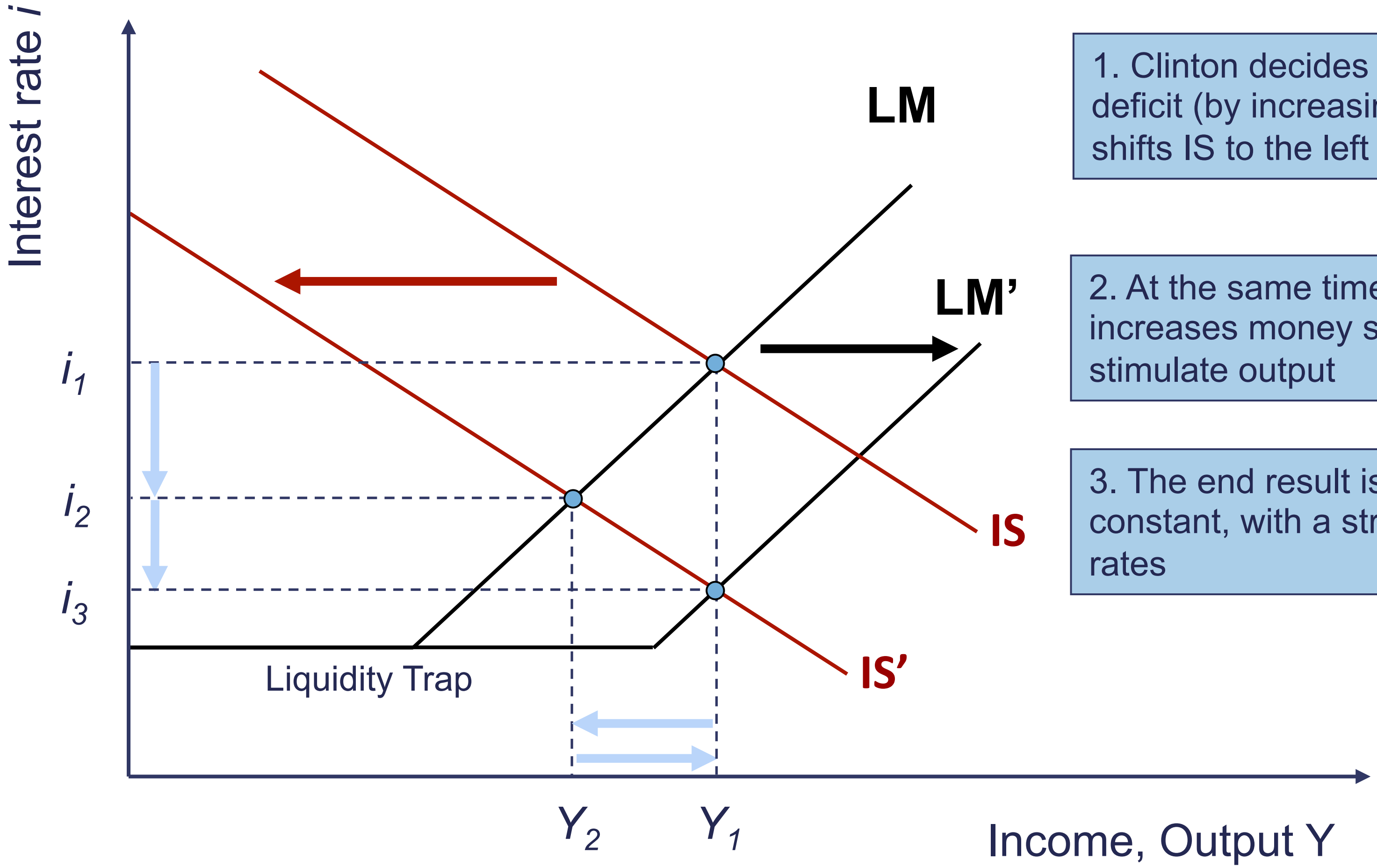
Macroeconomic equilibrium and policy

- The two policies are not independent, as they *both* affect the endogenous variables:
  - The interest rate i
  - Income Y
  - Hence the idea of a *policy mix*…

- **3 examples of policy mix issues**
  - The good: the Clinton deficit reduction in 1993,
  - The bad: the German reunification in 1992,
  - The ugly: the current debate on the “liquidity trap”.

Macroeconomic equilibrium and policy

The good: **The Clinton deficit reduction in 1993**



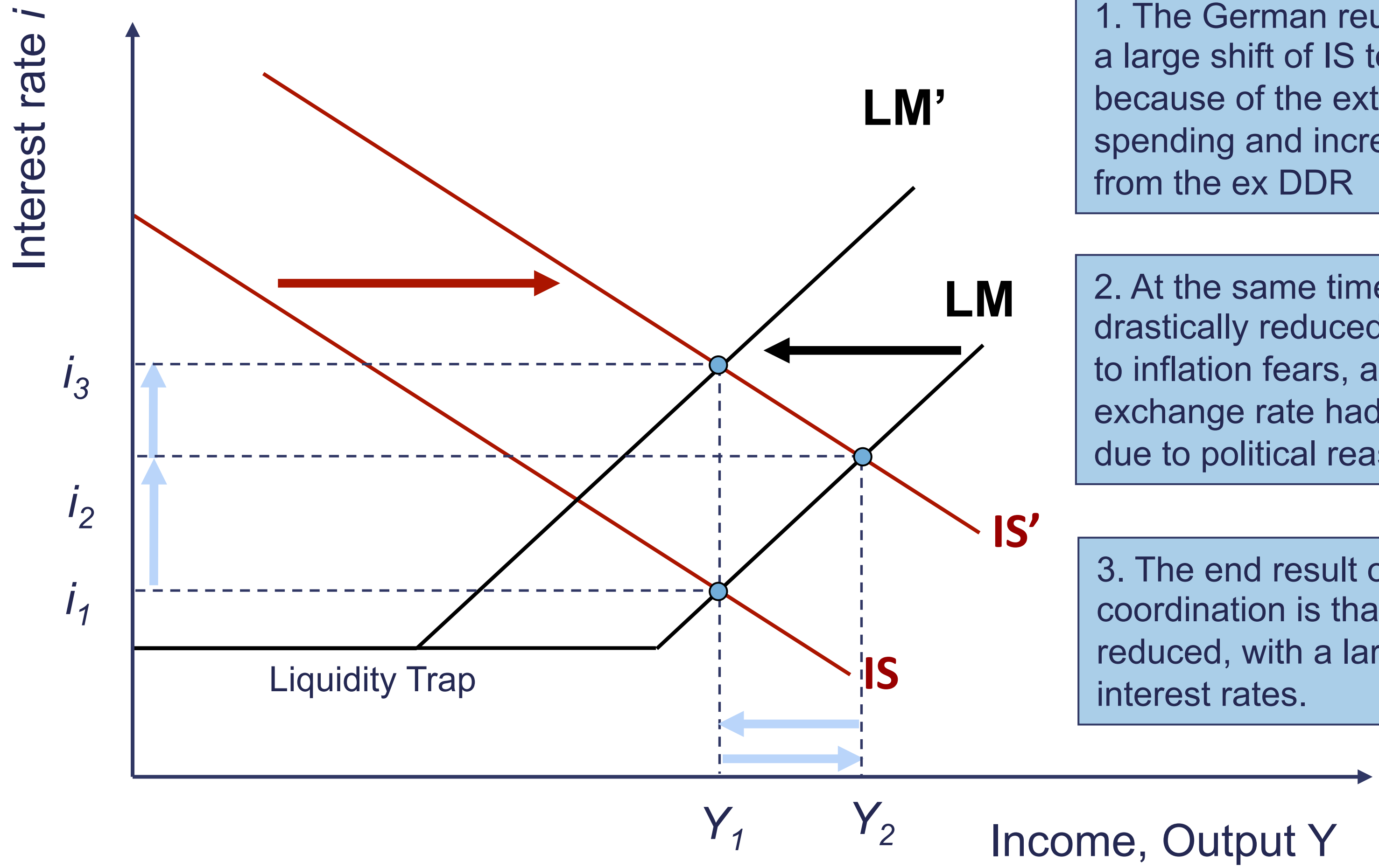
1. Clinton decides to reduce the US deficit (by increasing taxes) , which shifts IS to the left

2. At the same time, Alan Greenspan increases money supply in order to stimulate output

3. The end result is that output is held constant, with a strong fall in interest rates

Macroeconomic equilibrium and policy

The bad: **The German reunification in 1992**

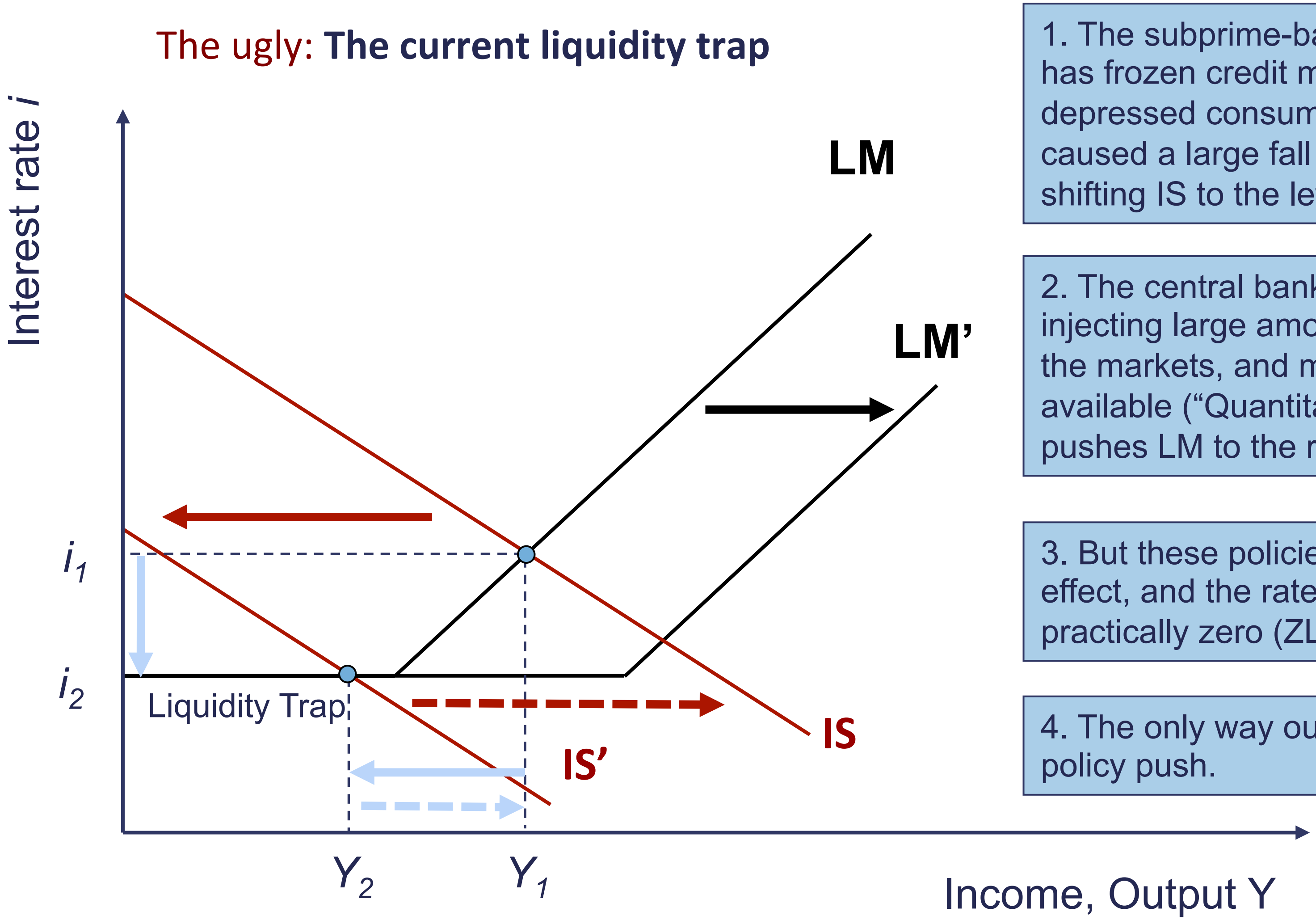


1. The German reunification resulted in a large shift of IS to the right, mainly because of the extra government spending and increase in consumption from the ex DDR

2. At the same time, the Bundesbank drastically reduced money supply due to inflation fears, as the ostmark/DM exchange rate had been set at 1 for 1 due to political reasons

3. The end result of this lack of coordination is that output was slightly reduced, with a large increase in interest rates.

Macroeconomic equilibrium and policy



1. The subprime-based financial crisis has frozen credit markets as well as depressed consumption. This has caused a large fall in investment, shifting IS to the left

2. The central bank have responded by injecting large amounts of liquidity in the markets, and making credit easily available ("Quantitative easing"). This pushes LM to the right.

3. But these policies have had no effect, and the rate of interest is practically zero (ZLB !)

4. The only way out is a large fiscal policy push.

Part 2

Long run: Fiscal consolidation & Transfer union

Europe’s non-solution: the ‘bazooka’ turned on itself (Auerbach, 2011)

Only a more active ECB can solve the euro crisis (De Grauwe, 2011).

Toward a Fiscal Union for the Euro Area, (Allard, C. et al (IMF, 2013)

Foregone years

- During the euro-crisis, many years were wasted on internal power struggle Berlin vs. Rest of EU on proper handling of the crisis:
  - sharp fiscal consolidation vs. stimulus,
  - no role for ECB allowed (due to "*No bail-out clause*")
  - no EU bonds until the fiscal union is established
- …at the cost of skyrocketing spreads of PIGS and pushing towards sovereign liquidity & solvency crisis
- …until Mario Draghi set the stage (2012)
  - "*whatever it takes*" to save the Euro

ECB

- September 2012, after ECB announced the program of (conditional) buying up the bonds of weak countries,
  - spreads dropped to sensible levels
  - the issue of EZ survival is off the table
- In September 2014, Mario Draghi announced
  - Quantitative easing (a limited version of it)
- … and called for policy coordination:
  - more expansive fiscal policies (where permitted),
  - structural reforms

Next steps

- Towards a Banking union (Stress test in 2014)
  - European Resolution Fund (ERF)

- Towards a Fiscal & Transfer Union (<u>Long-run</u>)
  - Fiscal consolidation (after growth is restored)
  - A permanent crisis resolution mechanism
  - (Some) centralized transfers
  - Euro bonds

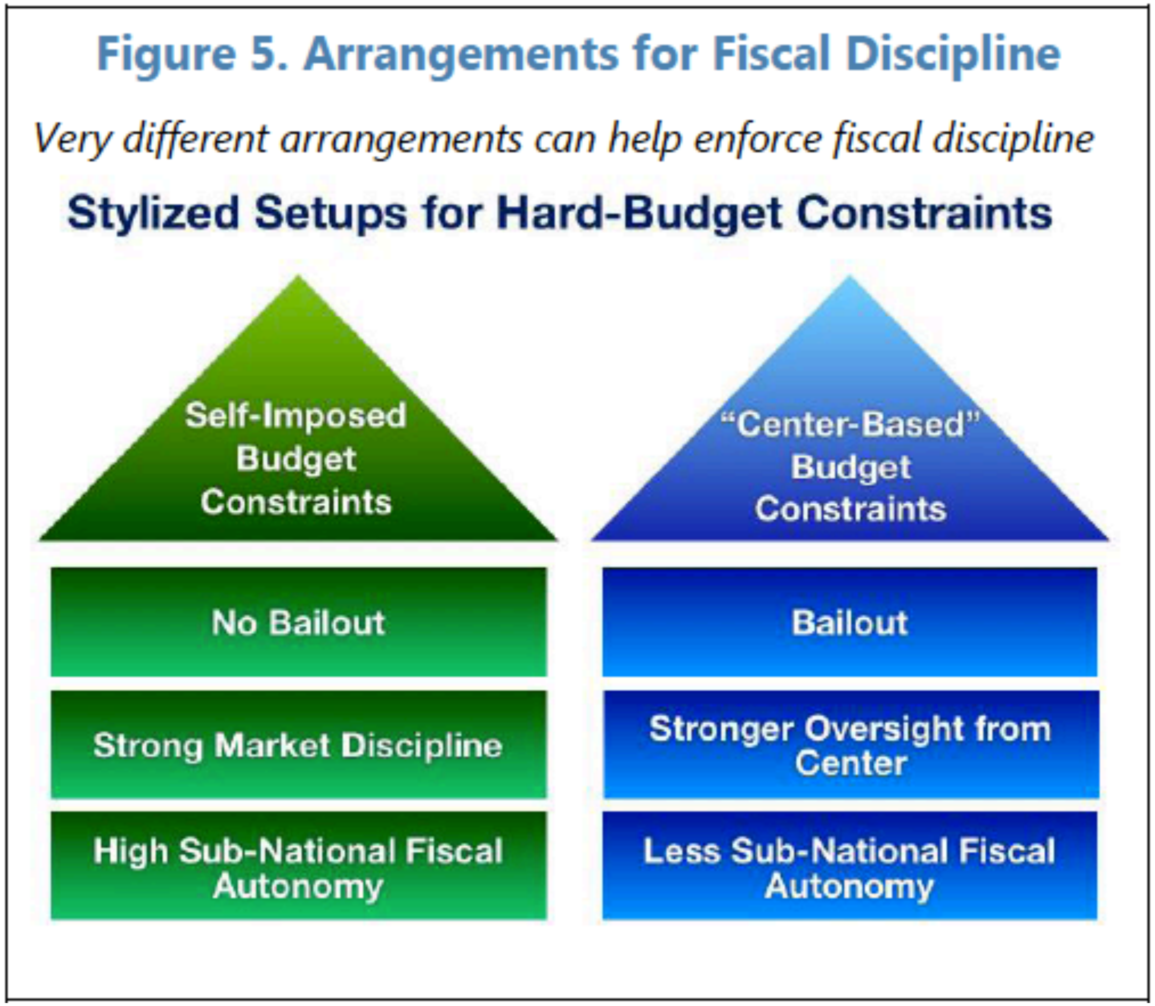
Towards Fiscal & Transfer Union

- Minimal elements for fiscal union

- Common fiscal policy design:
  - Structural fiscal targets
  - Independent forecasts
  - Binding medium-term fiscal plans
  - Increased transparency & accountability
- Reinstating fiscal discipline
- Enforcement
  - Sanction
  - A veto power from the center
- Political accountability

Towards transfer union

- First of all, stronger fiscal discipline needed



Towards transfer union

- A 'rainy day fund' (Tommaso Padoa-Schioppa Group (2012))

- Size of the fund:
  - annual contributions of 1½ to 2½ % GDP
  - funding through social security contributions, etc.
  - (e.g. ESM: 7½ % GDP (euro 700 billion))
- Pros:
  - ex ante support, before crisis unfolds into sovereign funding problem
- Cons:
  - free-riding (moral hazard problem)

Eligibility for transfers

	Eligibility for transfers (1982 - 2007) #years	Frequency of external shocks (1982 - 2007) #years
DE	14	2
IT	12	0
BE	11	5
NL	11	1
FI	10	3
FR	10	2
GR	10	7
PT	10	7
AT	9	4
SP	9	4
SK**	7	3
SL*	4	1
EE*	3	3
IR	3	1
LUX		10

* 1998-2007

** 1995-2007

Big question

- Will Euro survive ?
  - Good question, thank you!
  - A similar solution as to "How to save a bad marriage") (Martin Wolf, FT)