Macro-Economic Stabilization in the Euro-zone

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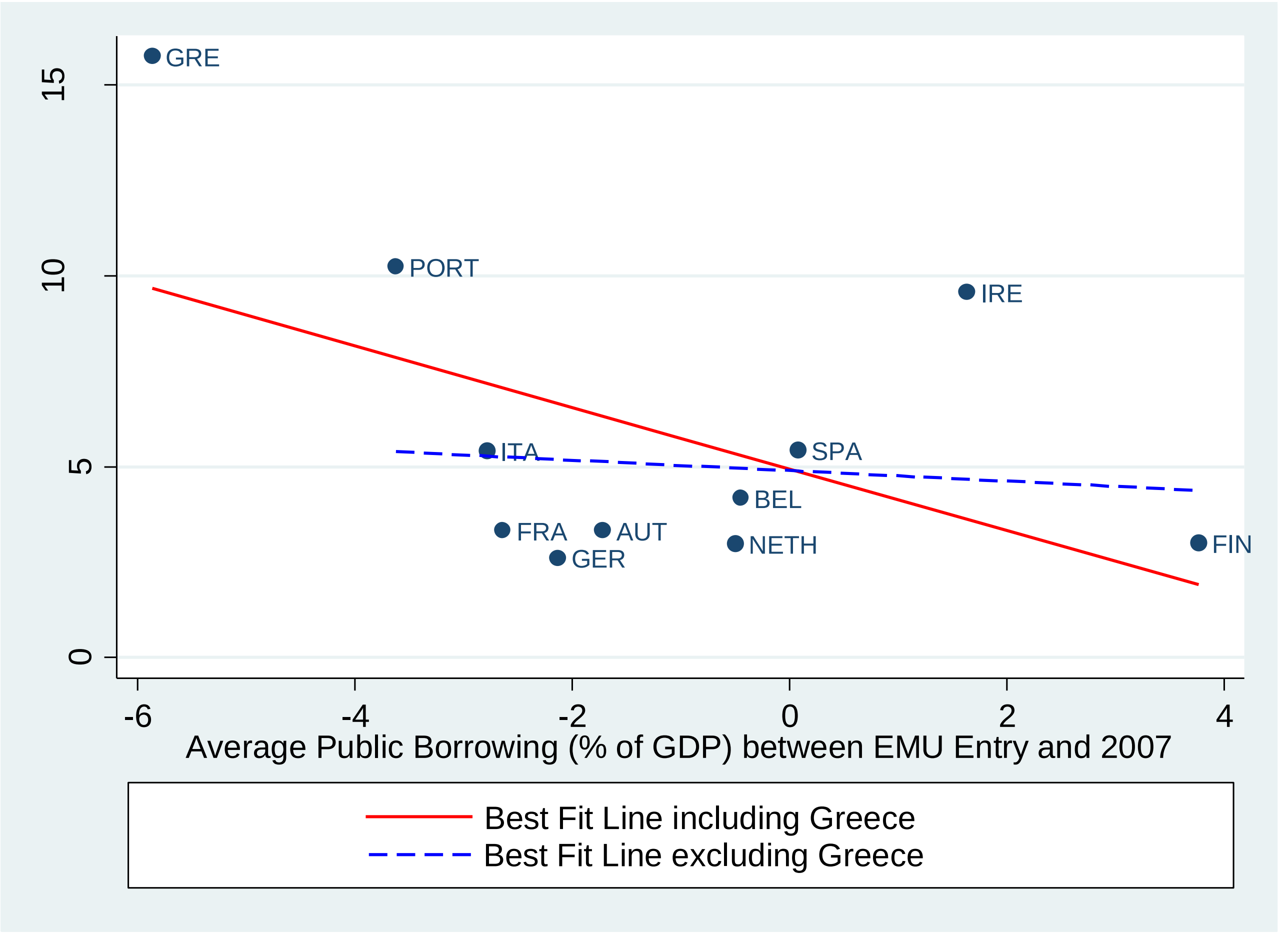
Outline

- The problem with EMU
- Two types of solutions
  - Fiscal union
  - Inflation correction
- Empirical test via simulations against actual evolution of EMU

The problem with EMU

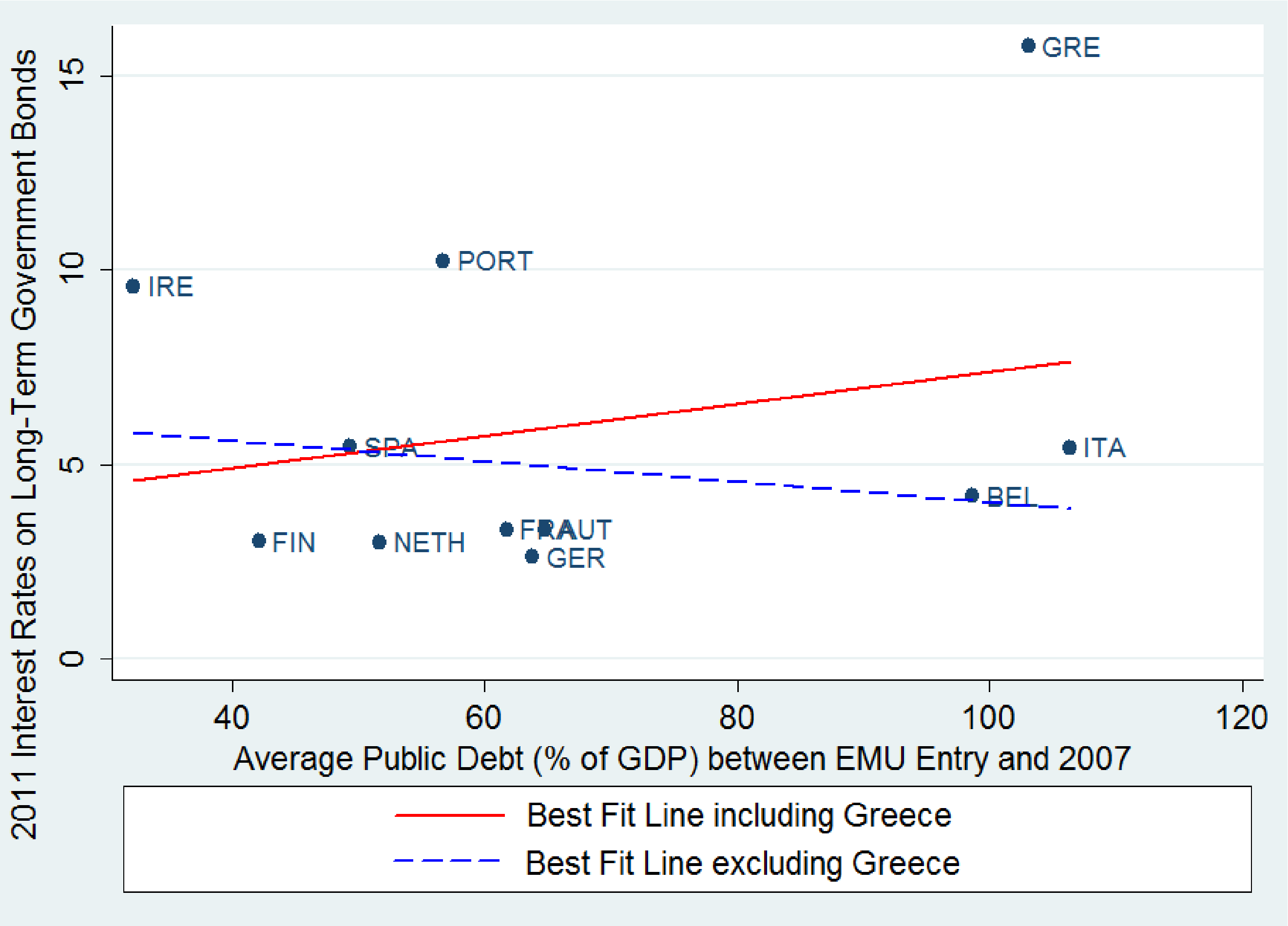
- Fiscal problem or inflation problem?
- Graphs 1a and 1b: no relation between debt or deficit before 2007 and interest rates at peak of EMU crisis. Fiscal problems as symptom, not cause

Figure 1a: 2011 interest rates and pre-crisis deficit performance



Source: Johnston et al. 2014: 1776

Figure 1b: 2011 interest rates and pre-crisis debt performance



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Current account (competitiveness)

- Crisis of EMU is balance of payment crisis, because of increasing current account divergence
- Suggests that inflation is important, since real exchange rate is determined by relative inflation rates:
- $RER = e\ (p_d/p_f)$;
- $e=1$ in EMU; only relative prices matter

Inflation

- Role of central bank is to take the punch bowl away when the party gets going (Paul Volcker)
- ECB the opposite: pro-cyclical monetary policy (real interest rate low in high-inflation countries and vice versa; cf. Table 1)
- Effect: low-inflation countries become ever more competitive while high-inflation countries lose competitiveness
- Current account divergence leads to balance of payments crisis, loss of confidence in sovereign debt, and crisis of EMU

Taylor Rule

- **Table 1: Difference between domestic interest rate following a Taylor rule and the actual Euro interest rate (averaged 2000-09 and 2000-04)**

	2000-09	2000-04
Austria	-0.33	-0.88
Belgium	0.21	-0.20
Finland	-0.36	-0.56
France	-0.15	-0.11
Germany	-0.45	-0.71
Greece	1.49	1.55
Ireland	1.81	3.63
Italy	0.16	0.40
Luxembourg	1.44	1.42
Netherlands	0.39	1.19
Portugal	0.86	2.10
Spain	1.25	1.81

- Source: Van Poeck 2010: 55

The solution

- Two possible worlds which we will test:
  - Fiscal union: horizontal redistribution from wealthy MS to poorer MS
  - Inflation: correction mechanism to counter ‘excessive’ (+/- 1%) inflation divergence
- Look at how inflation would fare under both scenarios compared to baseline model of what actually happened in EMU 2000-06

Fiscal union

- Table 2: EMU without and with fiscal union

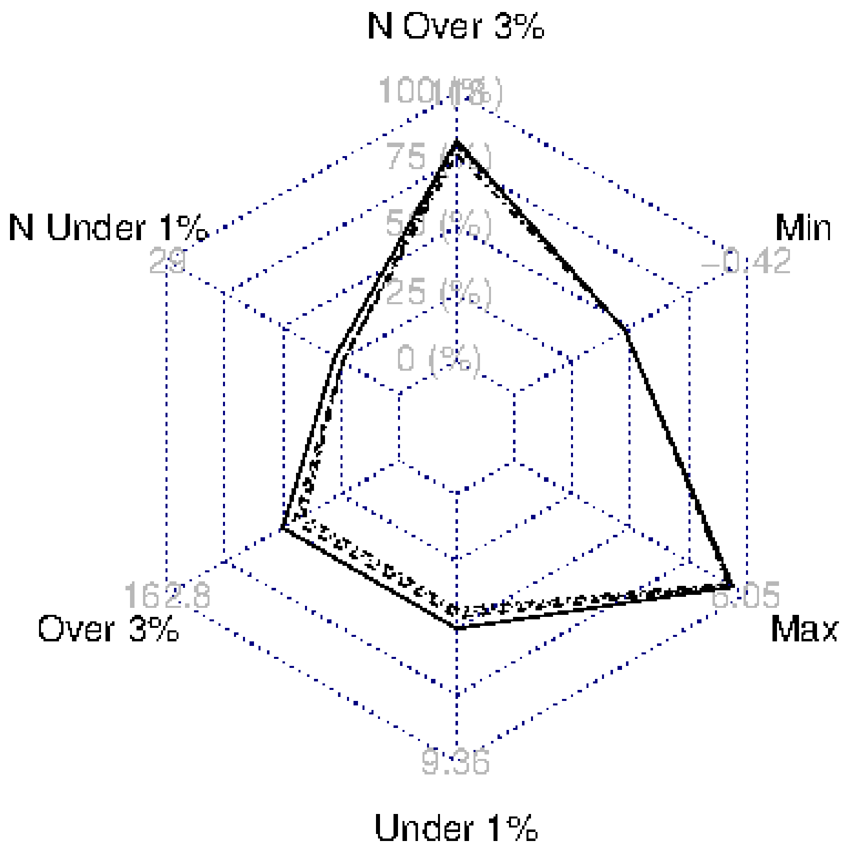
REALITY 2000-2006		Financial Equalization (85% of GDP)	
N Over 3%	97	N Over 3%	118
N Under 1%	8	N Under 1%	29
Over 3%	81.6	Over 3%	162.8
Under 1%	3.7	Under 1%	9.4
Max	5.7	Max	6.0
Min	-0.2	Min	-0.4
Mean	2.54	Mean	2.7
Std.Dev	1.03	Std.Dev	1.4

Inflation correction

- Impose a 'fine' if inflation is above 3%, which is transferred to countries with inflation below 1%
- Table 3: EMU without and with inflation correction

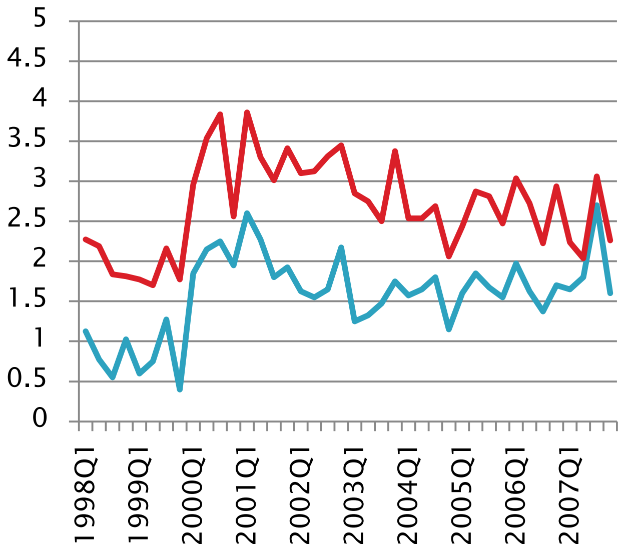
REALITY 2000–2006		INFLATION FINE (0.5% GDP)		INFLATION FINE (0.75% GDP)		INFLATION FINE (1.00% GDP)	
N Over 3%	97	N Over 3%	96	N Over 3%	95	N Over 3%	91
N Under 1%	8	N Under 1%	7	N Under 1%	7	N Under 1%	7
Over 3%	81.6	Over 3%	73.74	Over 3%	69.9	Over 3%	66.4
Under 1%	3.7	Under 1%	4.3	Under 1%	4.15	Under 1%	4.0
Max	5.7	Max	5.64	Max	5.61	Max	5.59
Min	-0.2	Min	-0.2	Min	-0.2	Min	-0.2

Comparison between models

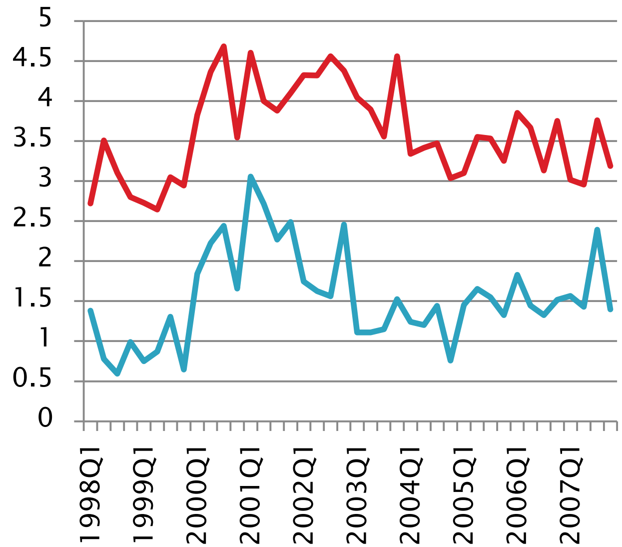


- Figure2: Comparison between ‘reality’, FEQ sim. and inflation fine sim

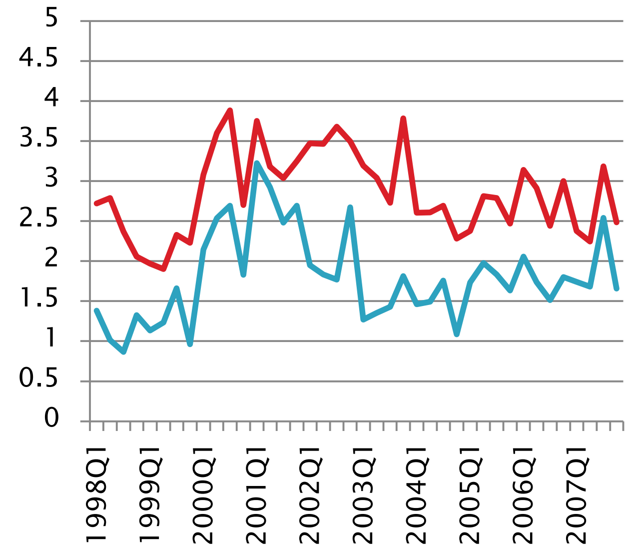
Comparison between models



Reality



FEQ-Simulation



Inflation fine sim.

Red: High-inflation countries
Blue: Low-inflation countries

Figure3: Comparison distinguishing in two different inflation groups

Conclusion

- Fiscal union model exacerbates adjustment problems in EMU
- Inflation model fares a lot better than fiscal union: less divergence
- Therefore also fewer pressures on current accounts