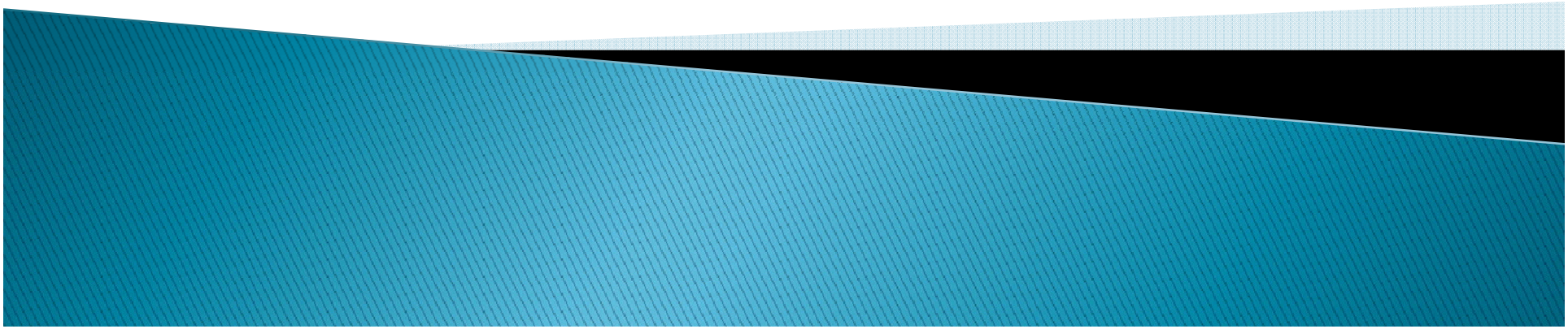
Presentation at the 2011 Philadelphia Fed Policy Forum
December 2, 2011

What is old and what is new about the European Debt Crisis?

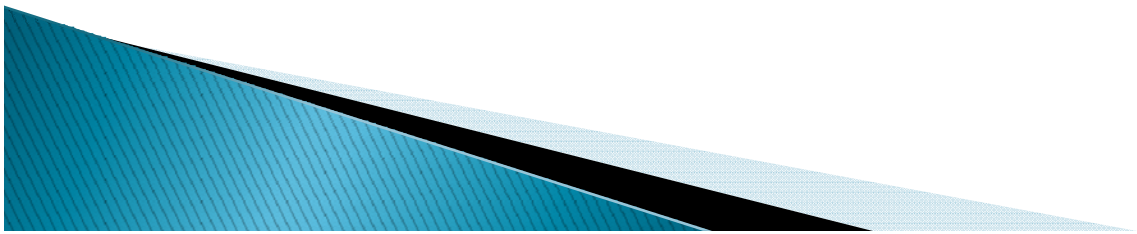
Enrique G. Mendoza
University of Maryland & NBER



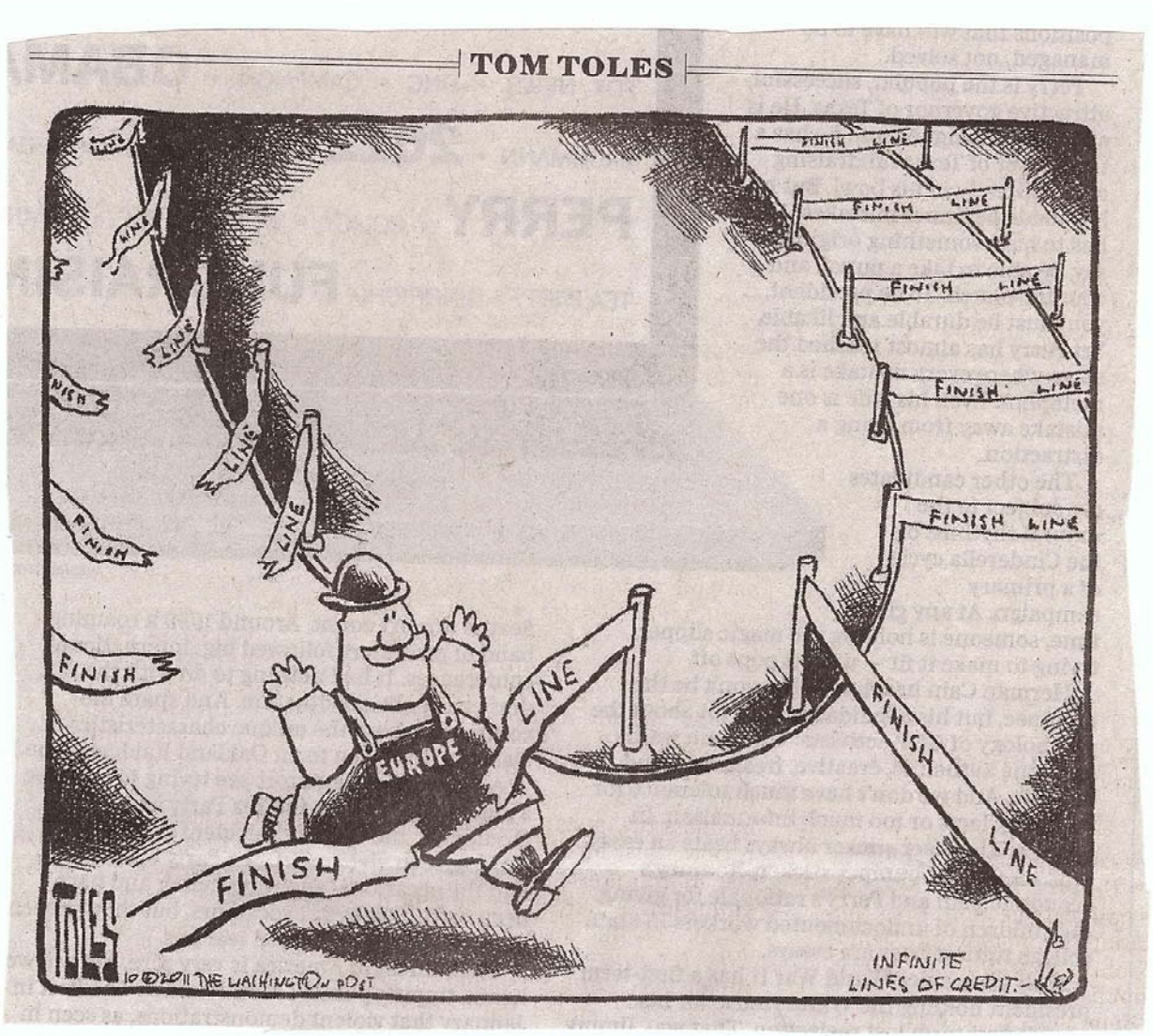
A Starbucks menu of plans

1. Short: May/Dec. 2010 Greece, Ireland plans
2. Tall: July 2011 Greece plan B w. tiny haircuts
3. Grande: Oct. 2011 European plan (EFSF: leverage and guarantees, 50% haircuts…)
4. Venti: Nov-Dec 2011 European plan B (boost EFSF, create EMF, re-lending via IMF…)
5. With extra shot: Nov. 30, 2011 (coordinated 50bpts cut in overnight dollar swaps)

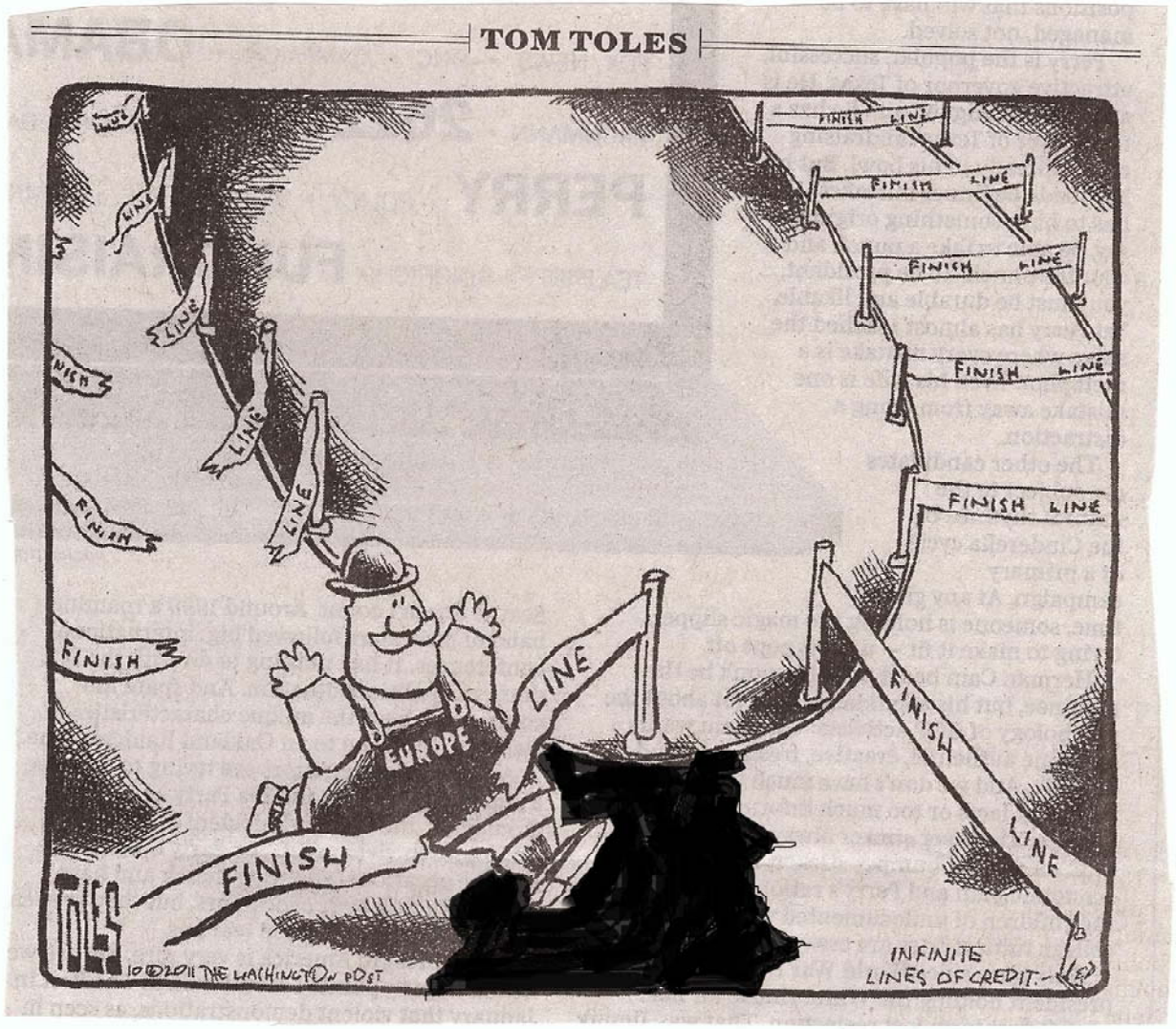
- …*this may all seem new, but in fact the endgame of financial crisis often features*…



…a joyful run of optimistic plans…

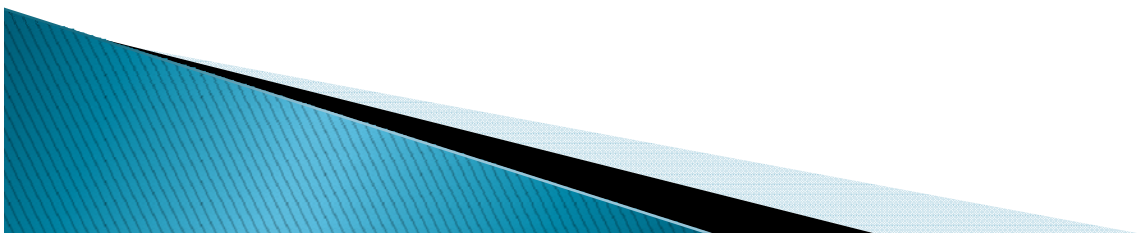


…which often has a sudden, painful end



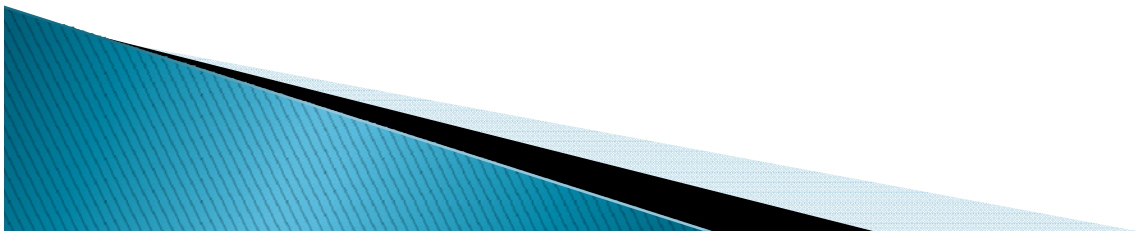
What is old?

1) Fiscal solvency math: even governments cannot run Ponzi games
2) Fixed ex. rates and fiscal chaos don't mix
3) Aiming to repay "excessive" debt ratios is not optimal and often not feasible (reforms & austerity alone do not solve debt crises)
4) Sovereign defaults feature deep recessions
5) "This time is different" syndrome



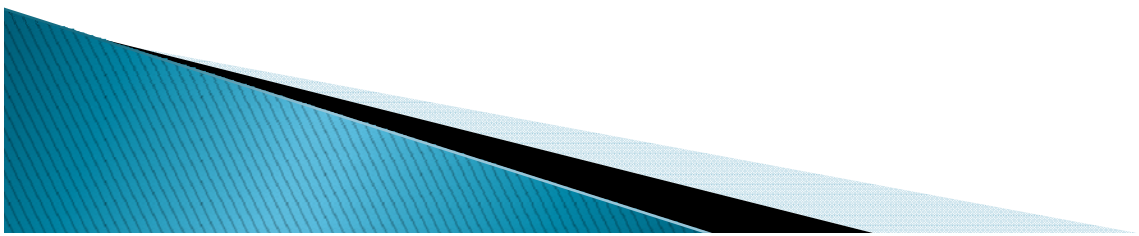
What is new?

1) Default by sovereign nations that share a central bank
2) EU-wide financial system vulnerable to default risk of individual sovereigns
3) Three way strategic interaction:
   a) Individual sovereigns
   b) Regional (large country) authorities/institutions
   c) "Too big to fail" financial intermediaries
4) Developed countries need financing from developing countries!

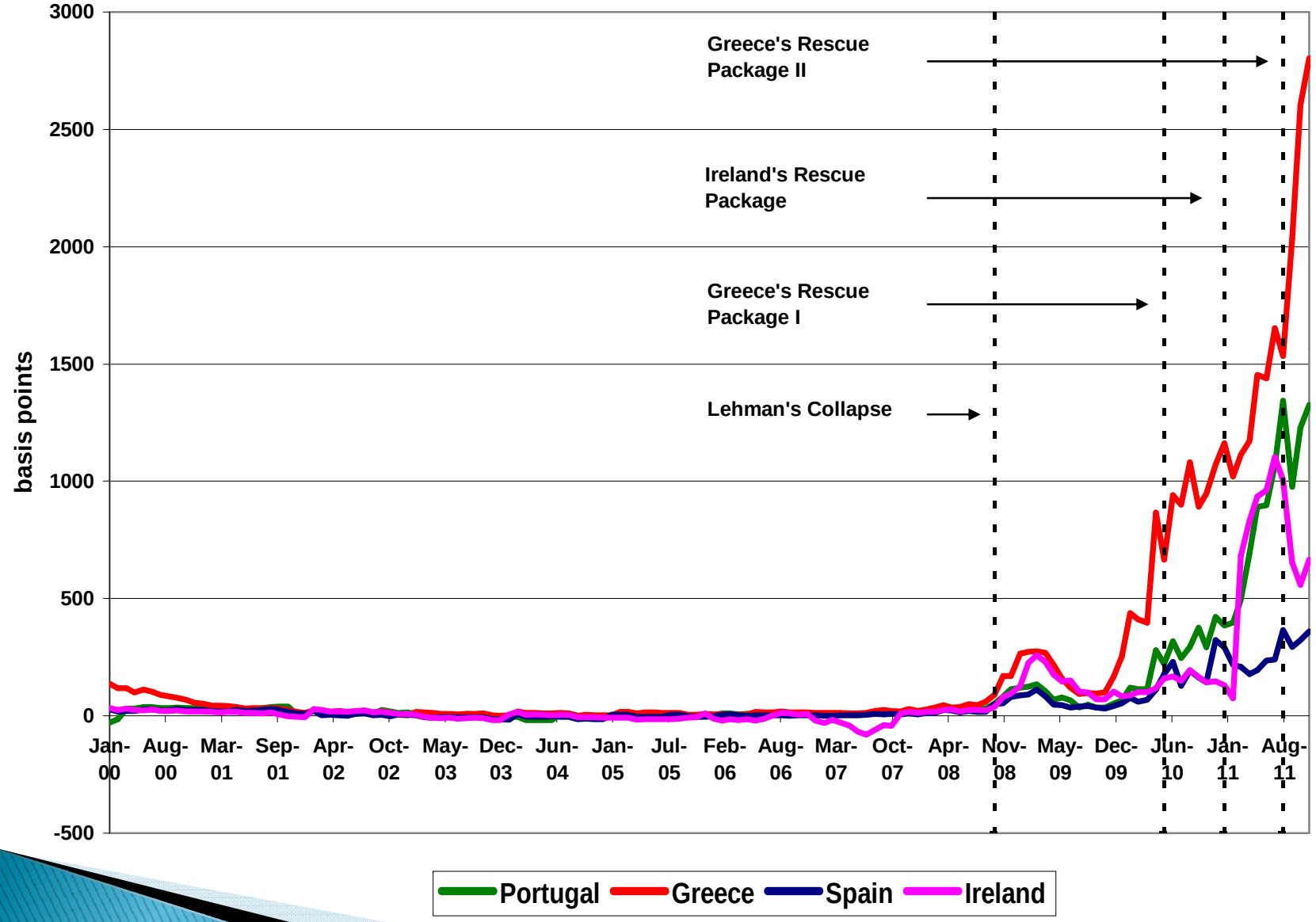


A review of key facts

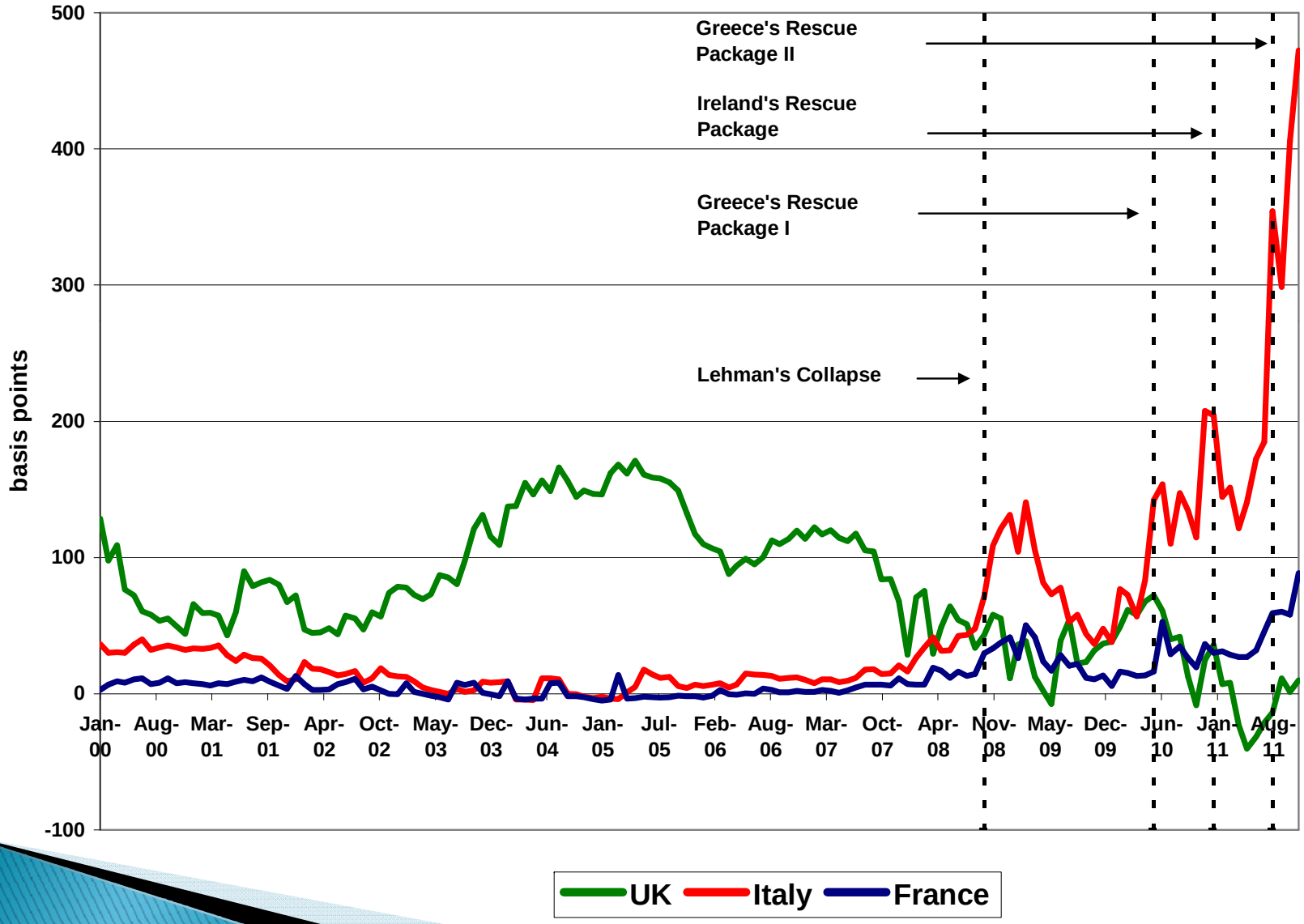
1. Decoupling & widening of spreads since 07
2. Surge in debt ratios
3. Systemic banking vulnerability to sovereign & broader macro risks
4. Leveraging of the ECB's balance sheet
5. Defaults & Great Recessions



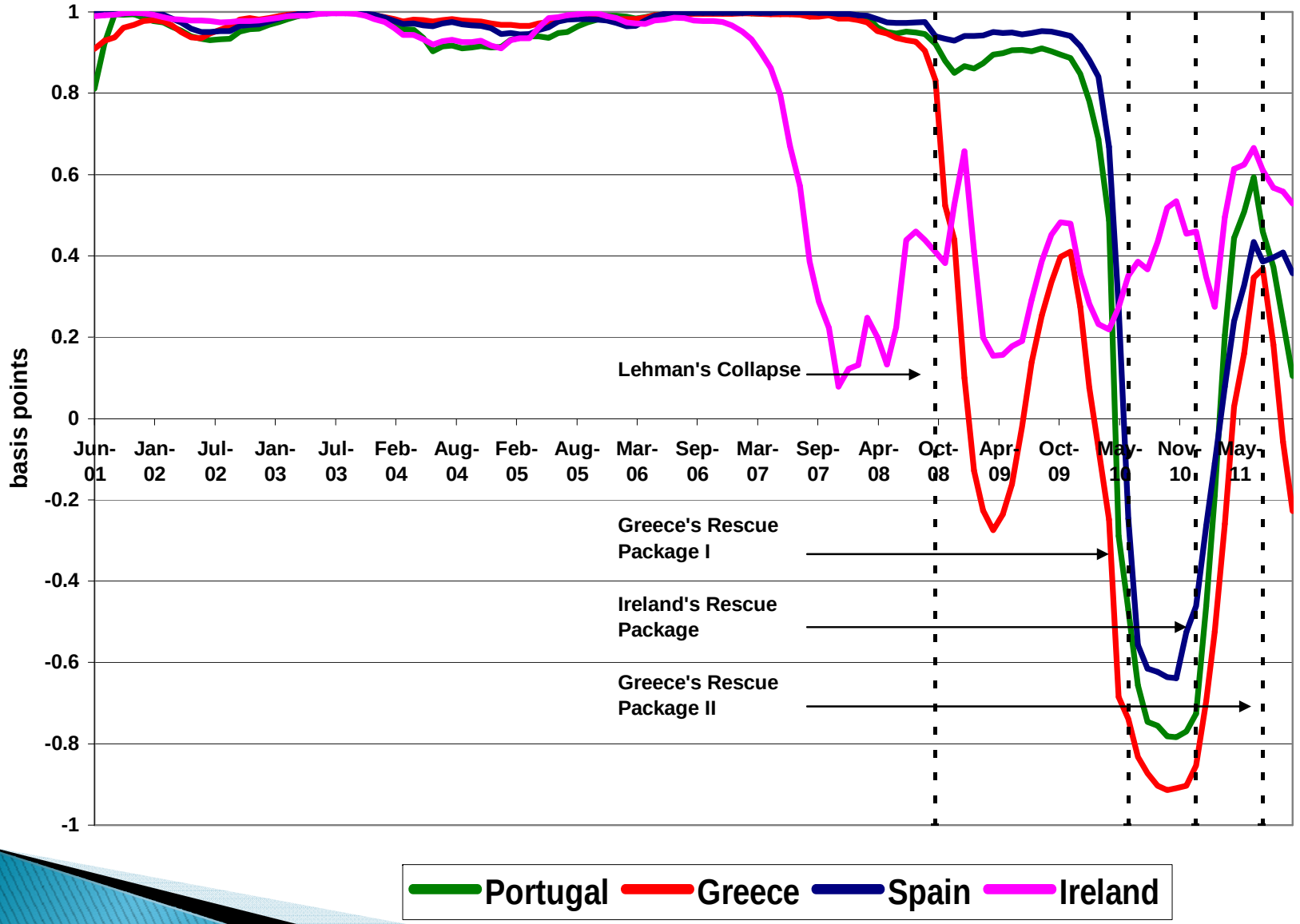
Widening spreads (v. German 5 yr. bonds)



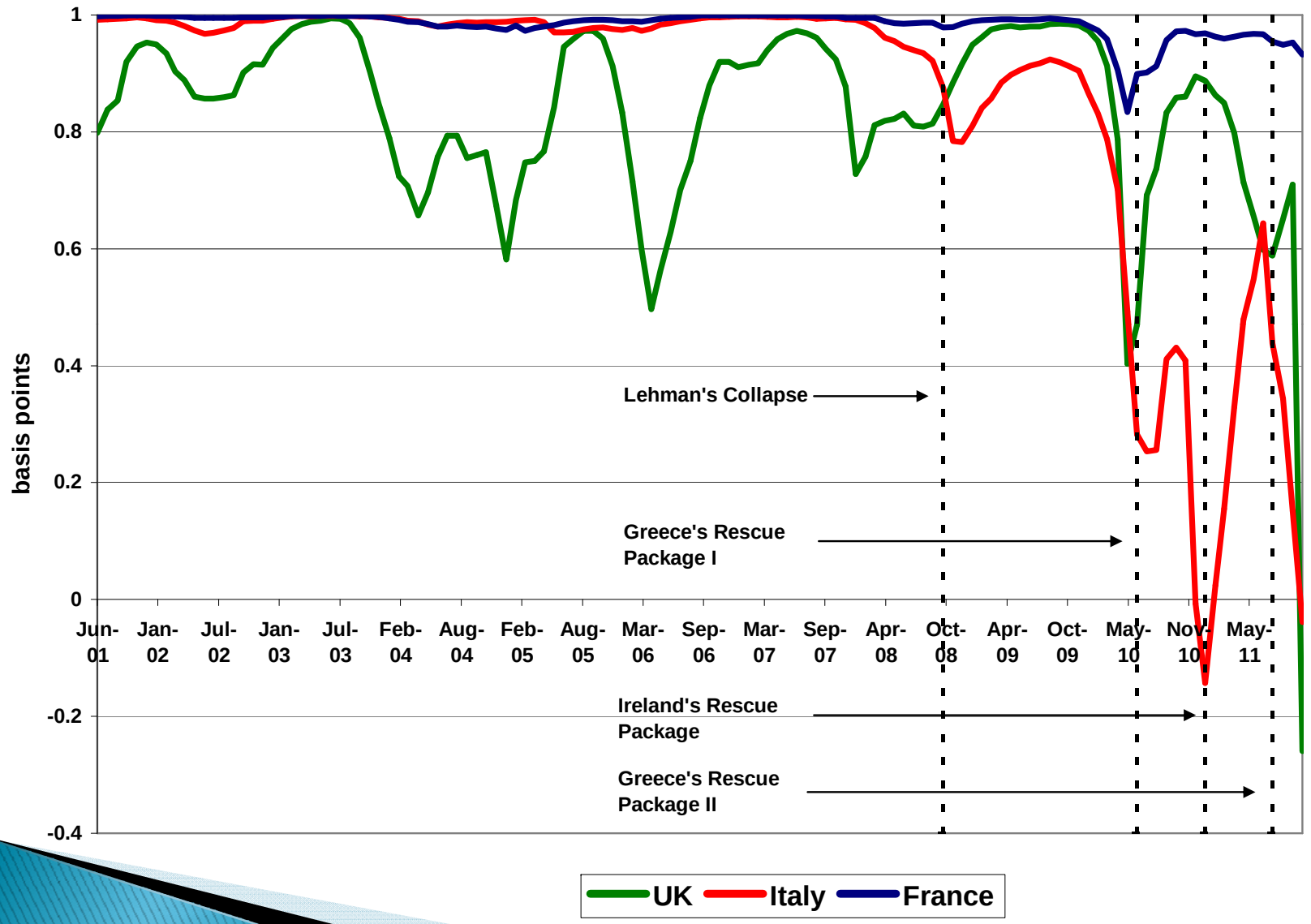
Widening spreads (v. German 5 yr. bonds)



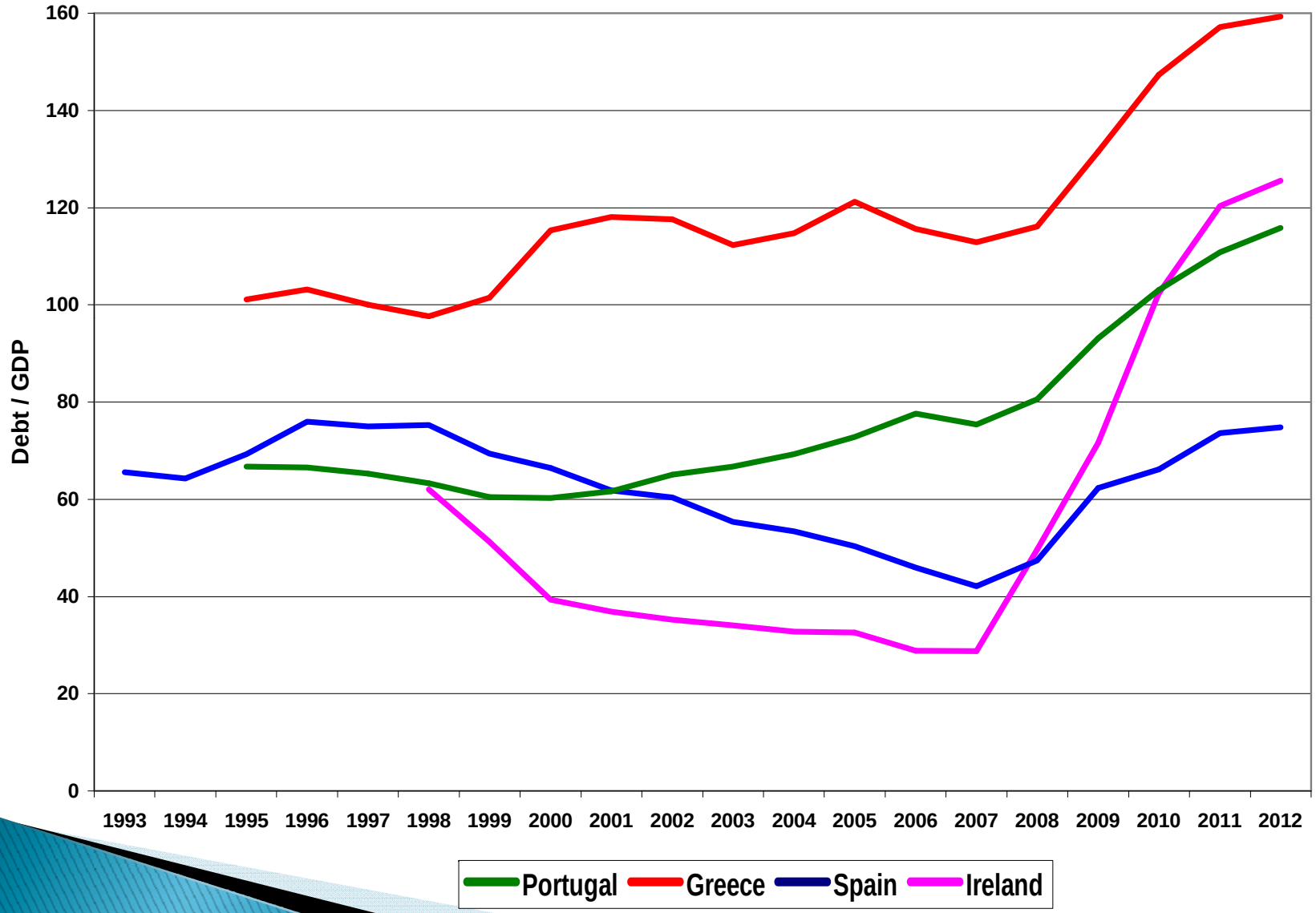
Decoupling (18mo rolling corrs.)



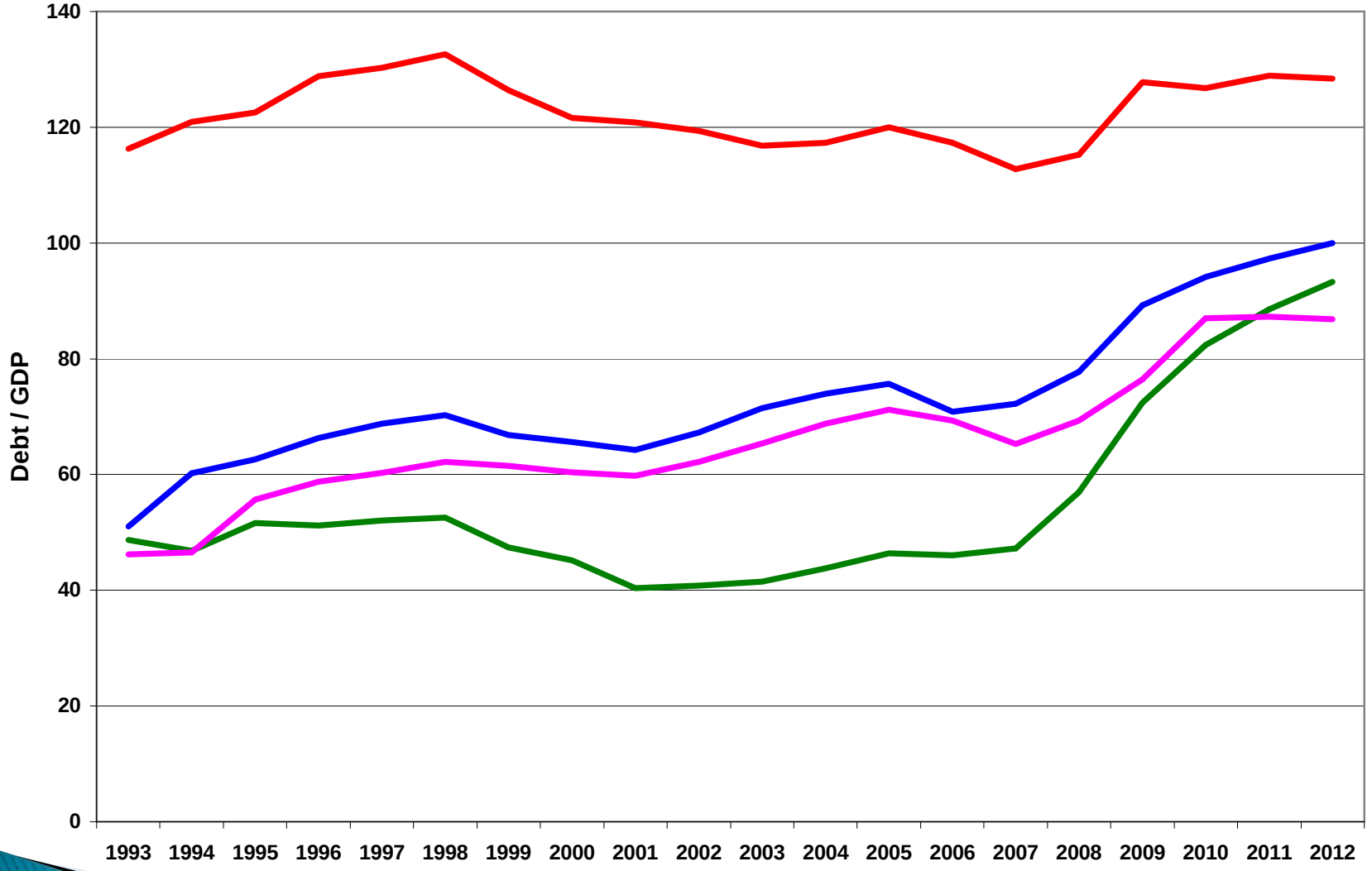
Decoupling (18mo rolling corrs.)



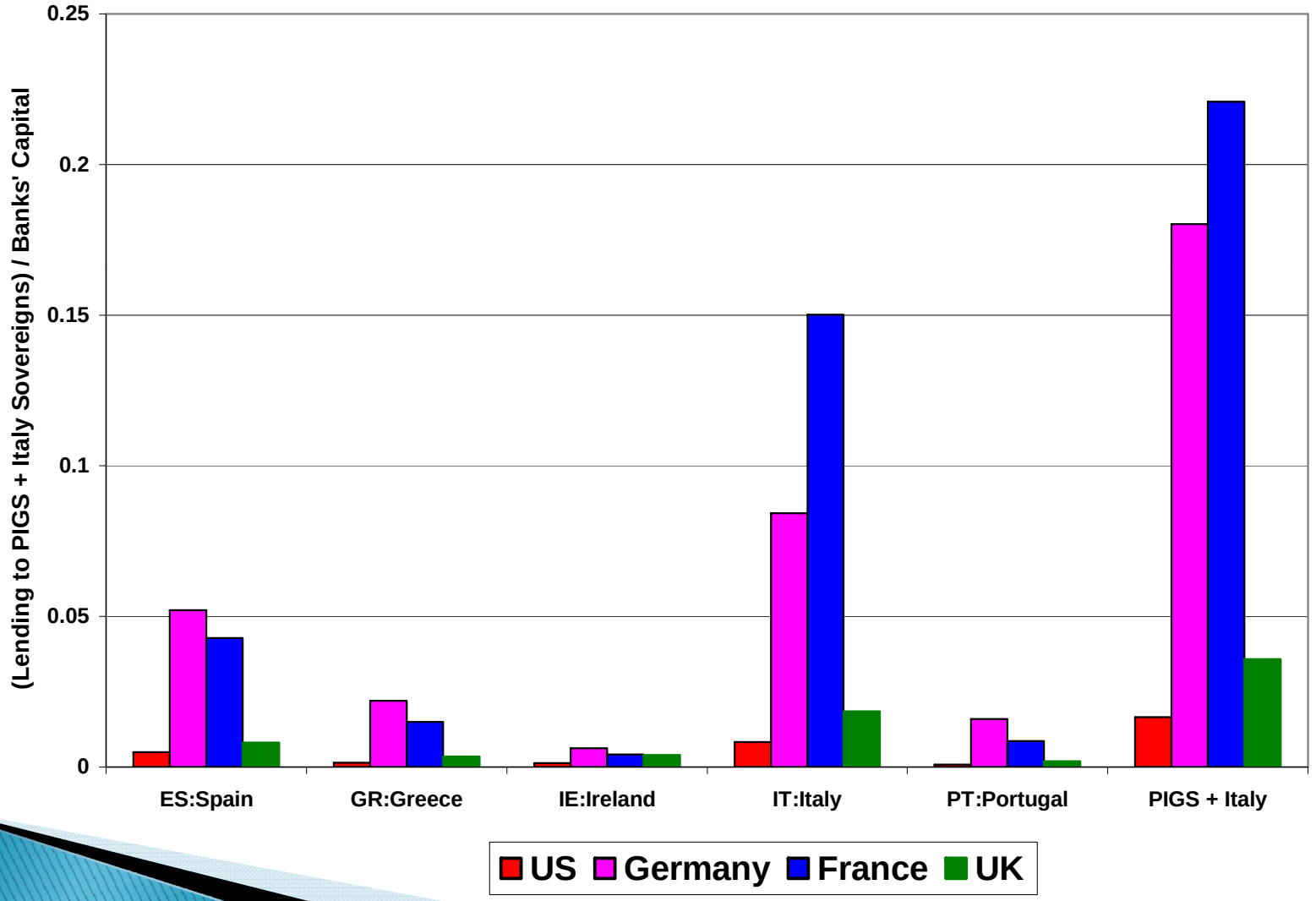
Surging debt ratios



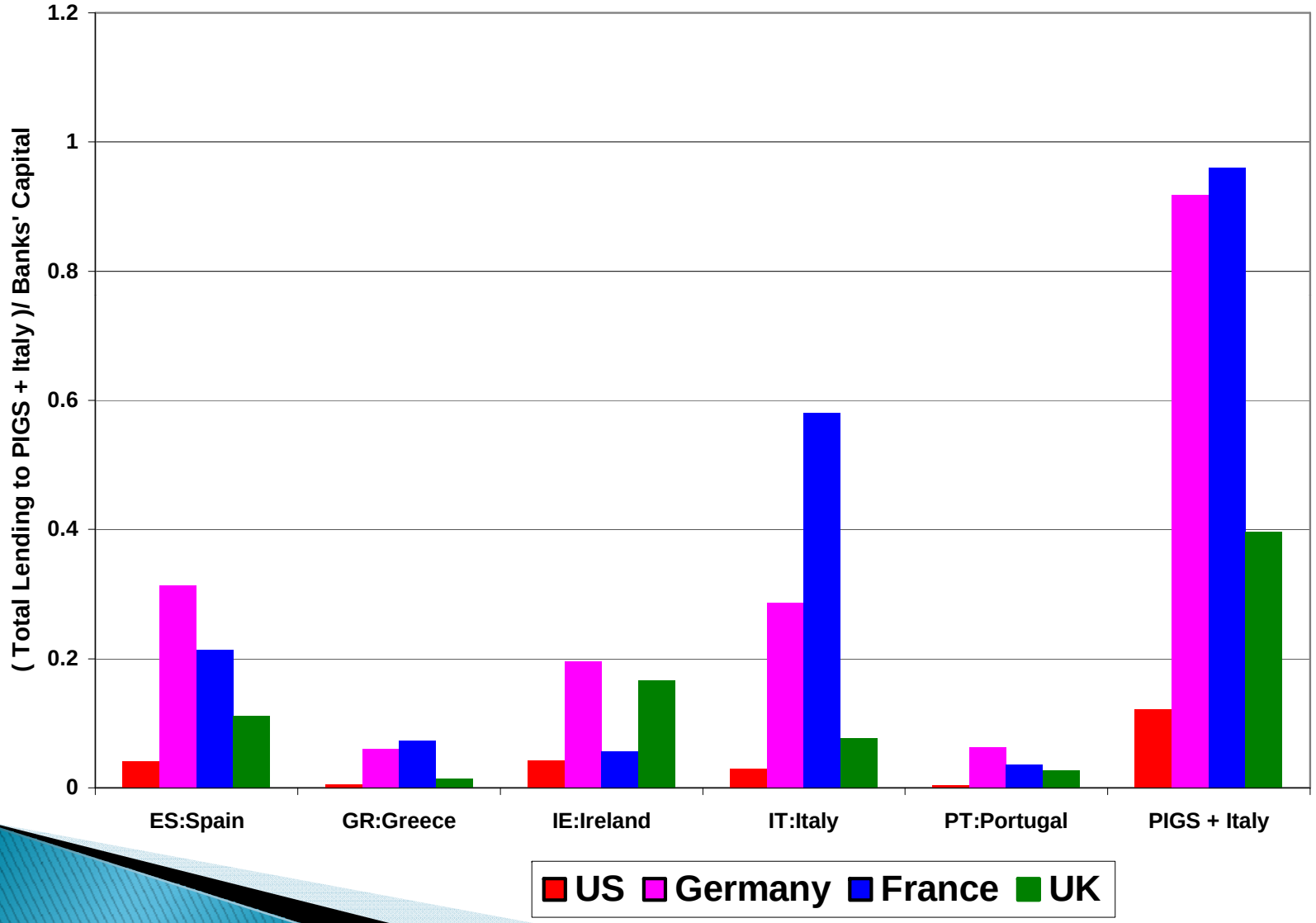
Surging debt ratios



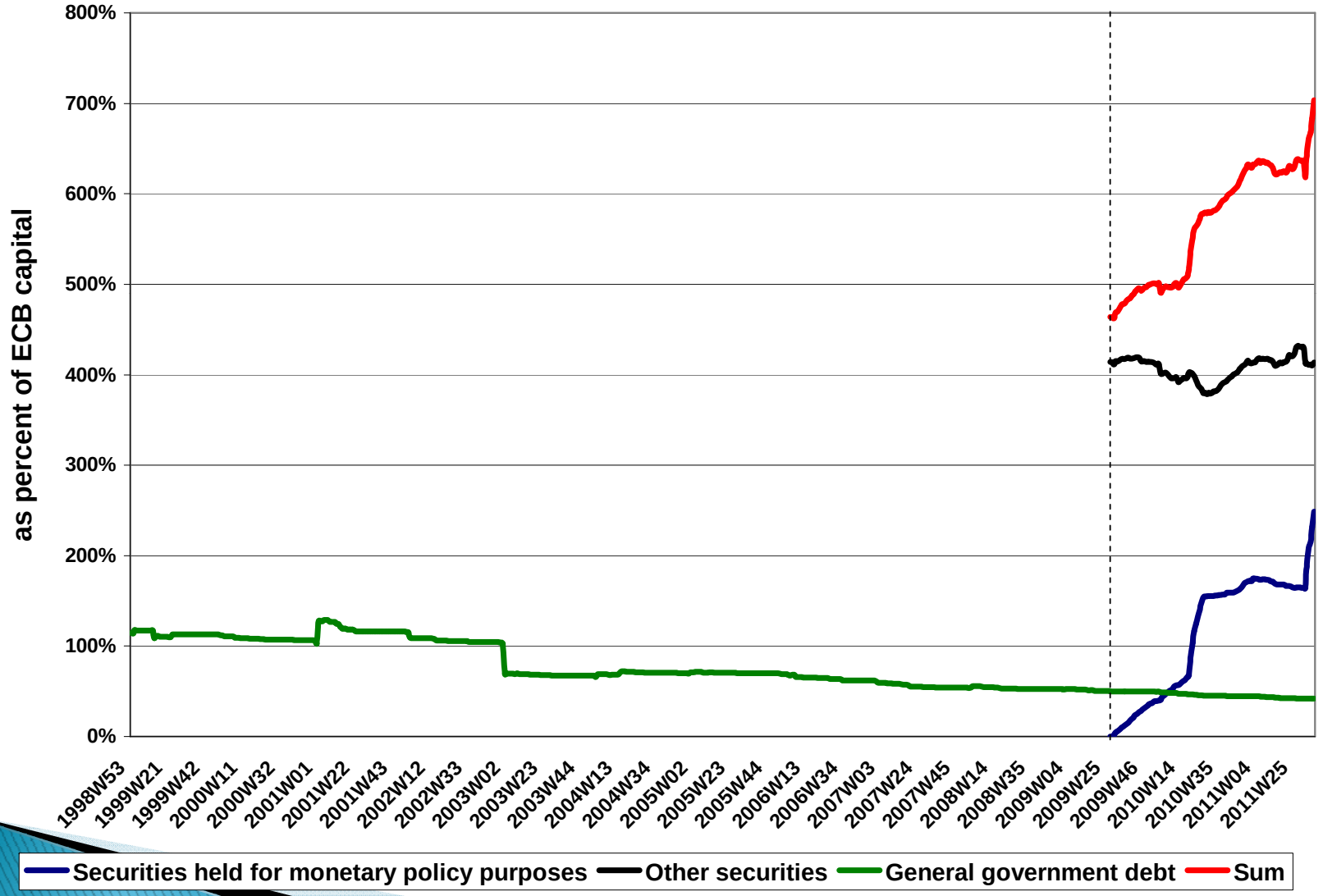
Bank's direct exposure to sov. risk
(2011 Q2)



Bank's total "macro" exposure
(2011 Q2)



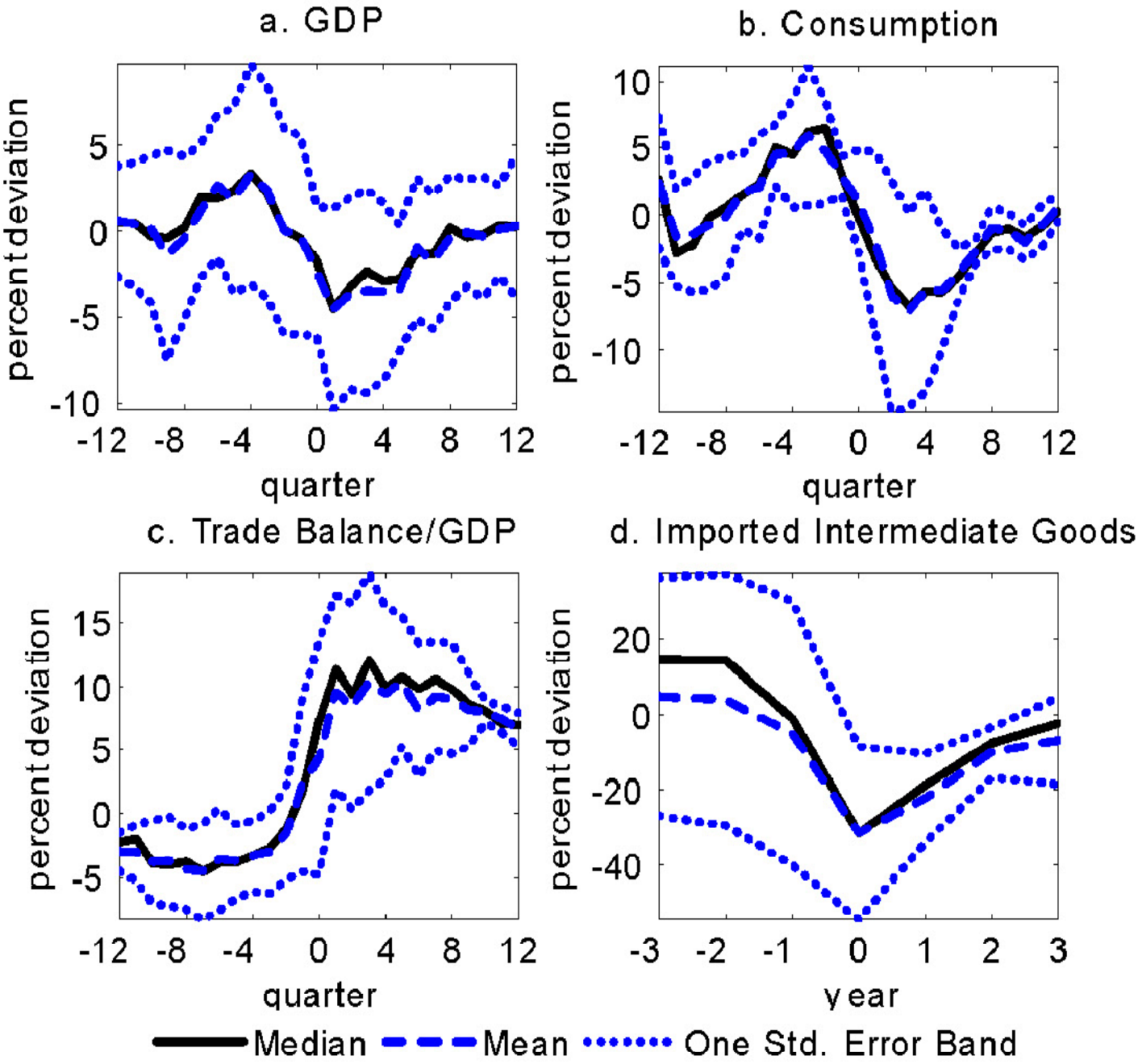
ECB's sovereign exposure

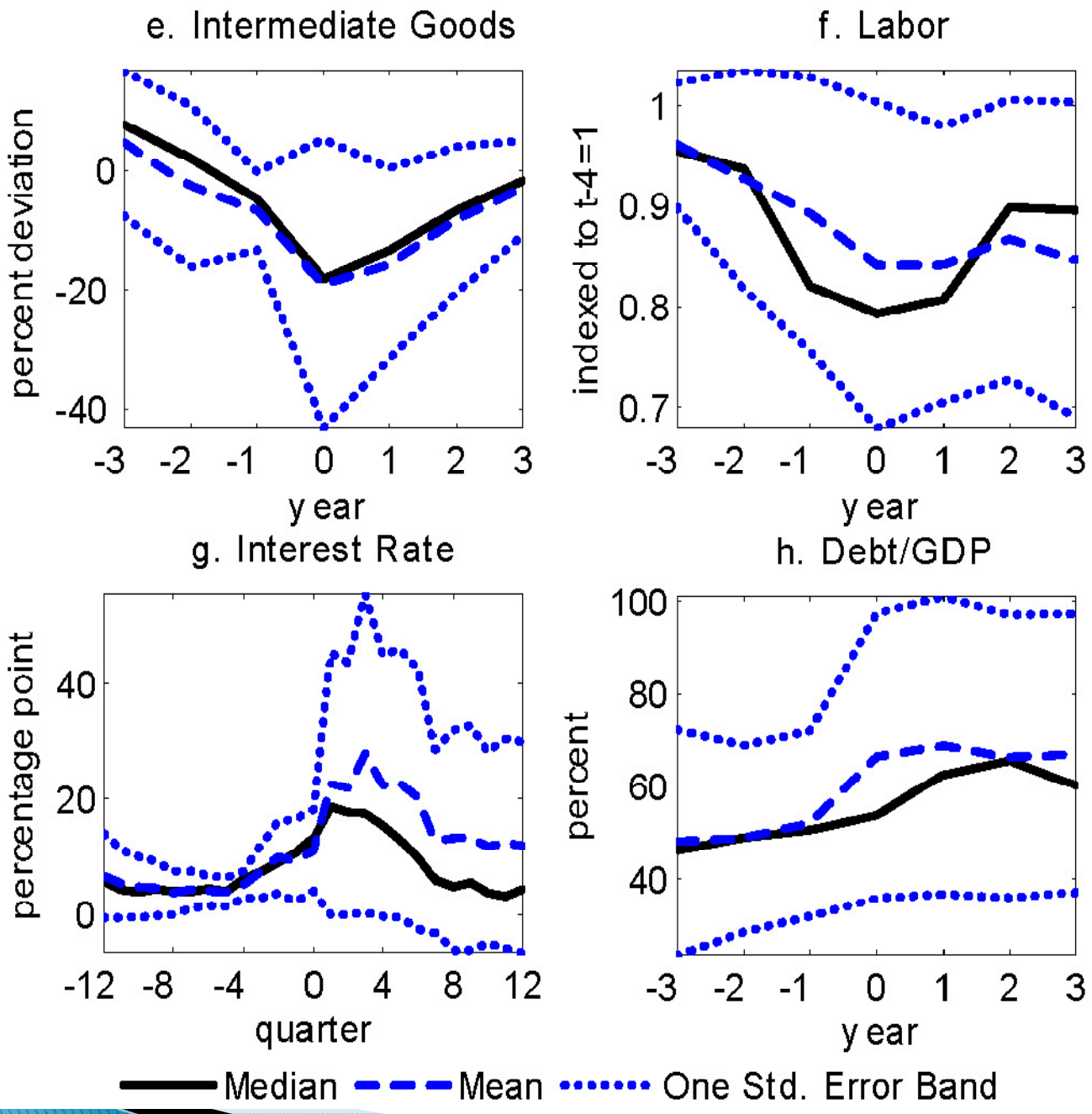


Default and Great Recessions: Lessons from the South

- 23 default events in 1977–2009:

  Argentina 1982Q2 & 2002Q1, Chile 1983Q1, Croatia 1992Q2, Domin. Rep. 1993Q1, Ecuador 1999Q3, Indonesia 1998Q3, Mexico 1982Q4, Moldova 2002Q1, Nigeria 1983Q1 & 1986Q4, Pakistan 1998Q3, Peru 1983Q2, Philippines 1983Q4, Russia 1998Q4, South Africa 1985Q2 & 1993Q1, Thailand 1998Q1, Ukraine 1998Q4, Uruguay 1990Q2 & 2003Q2, Venezuela 1995Q3 & 1998Q3
- Event windows for macro variables using HP-filtered quarterly cyclical components
- Median devs. from trend around defaults: *GDP* –5%, *C* –6.5%, *L* –20%, *IntGds* –20%, *Imp. IntGds* –25%, and $\Delta NX/GDP$ of 12 ppts.


a. GDP
percent deviation
5
0
-5
-10
-12 -8 -4 0 4 8 12
quarter
b. Consumption
percent deviation
10
5
0
-5
-10
-12 -8 -4 0 4 8 12
quarter
c. Trade Balance/GDP
percent deviation
15
10
5
0
-5
-12 -8 -4 0 4 8 12
quarter
d. Imported Intermediate Goods
percent deviation
20
0
-20
-40
-3 -2 -1 0 1 2 3
year
Median
Mean
One Std. Error Band


e. Intermediate Goods
percent deviation
0
-20
-40
-3 -2 -1 0 1 2 3
year
f. Labor
indexed to t-4=1
1
0.9
0.8
0.7
-3 -2 -1 0 1 2 3
year
g. Interest Rate
percentage point
40
20
0
-12 -8 -4 0 4 8 12
quarter
h. Debt/GDP
percent
100
80
60
40
-3 -2 -1 0 1 2 3
year
Median
Mean
One Std. Error Band

Fiscal solvency math

- Debt ratio b_t preserves fiscal solvency if:

  $b_t = \mathrm{E}_t$[PDV of primary balance t,…,∞]

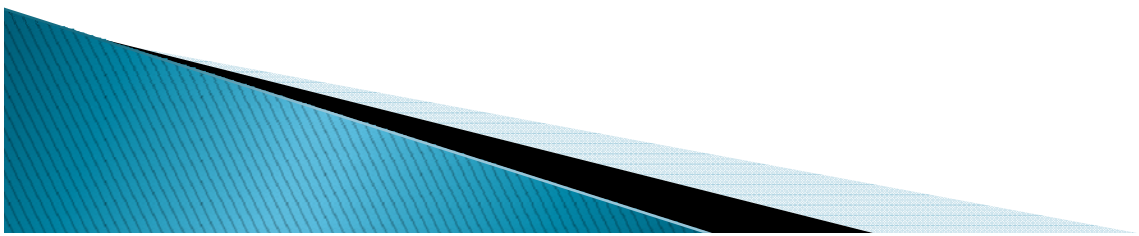
- Bohn (95): a positive response of pb to lagged debt is sufficient:

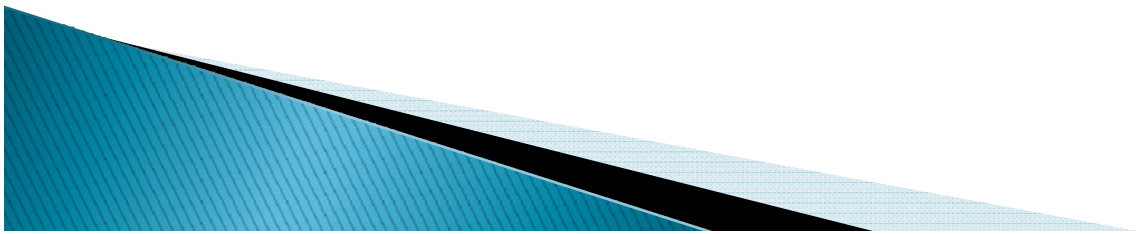
$$pb_{i,t} = \beta_{0,i} + \beta_1 \tilde{g}_{i,t} + \beta_2 \tilde{y}_{i,t} + \rho b_{i,t-1} + \varepsilon_{i,t}$$

- Mendoza & Ostry JME 08 examined evidence using cross section of 22 ICs, 34 EMs
  - ρ=0.04 and significant for countries w. E[b]<62%
  - ρ not significant for countries with E[b]>62% (PIGS and Italy in this group!)
  - Predicted long-run debt averages in 40-60% range

Very unpleasant European monetarist arithmetic

- Emergency bailouts via gov./central bank purchases of bank's toxic assets are credible in part because they represent claims on future fiscal revenues (bad debts become national public debts)
- …but there is no European-wide fiscal authority to back up large, systemic bailout (e.g. ECB debt purchases, EFSF)
- …Eurozone considering tighter fiscal union, EMF/ECB large debt purchases from banks



Now what?

- Real choice is orderly v. disorderly crisis
- Large, credible sov. debt restructuring
  - historically, renegotiations take 3-6 years, with 40% avg. haircut, but debt 15ppts higher
- Large liquidity injections to banks
  - If Euro persists, will need credible commitment of future Euro-wide tax revenues and reforms (EMF)
  - If Euro abandoned, countries can follow "usual" strategies individually
  - Option to "globalize" the costs using IMF
- Risk of sharp macro downturn