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)

- Greece's Rescue Package II
- Ireland's Rescue Package
- Greece's Rescue Package I
- Lehman's Collapse

Lines correspond to events:
- Greece's Rescue Package II
- Ireland's Rescue Package
- Greece's Rescue Package I
- Lehman's Collapse

Legend:
- UK
- Italy
- France
Decoupling (18mo rolling corrs.)

- Lehman's Collapse
- Greece's Rescue Package I
- Ireland's Rescue Package
- Greece's Rescue Package II

Graph showing the correlation between different countries over time with key events marked.
Decoupling (18mo rolling corrs.)

Lehman's Collapse

Greece's Rescue Package I

Ireland's Rescue Package

Greece's Rescue Package II

UK  Italy  France
Surging debt ratios

Debt / GDP


Portugal  Greece  Spain  Ireland

[Graph showing the debt/GDP ratios for Portugal, Greece, Spain, and Ireland from 1993 to 2012, with a notable rise in all countries after 2008, particularly in Greece and Ireland.]
Surging debt ratios

![Graph showing debt/GDP ratios for Italy, France, United Kingdom, and Germany from 1993 to 2012. The graph indicates a significant increase in debt ratios for all countries, with Italy showing the highest debt/GDP ratios.]
Bank’s direct exposure to sov. risk (2011 Q2)
Bank’s total “macro” exposure (2011 Q2)

(Total Lending to PIGS + Italy) / Banks’ Capital

- ES: Spain
- GR: Greece
- IE: Ireland
- IT: Italy
- PT: Portugal
- PIGS + Italy

- US
- Germany
- France
- UK
ECB’s sovereign exposure

- Securities held for monetary policy purposes
- Other securities
- General government debt
- Sum
Default and Great Recessions: Lessons from the South

- 23 default events in 1977–2009:

- Event windows for macro variables using HP-filtered quarterly cyclical components

- Median devs. from trend around defaults:
  \[ GDP - 5\%, \quad C - 6.5\%, \quad L - 20\%, \quad IntGds - 20\%, \quad Imp. IntGds - 25\%, \quad \text{and } \Delta NX/GDP \text{ of 12 ppts.} \]
Fiscal solvency math

- Debt ratio $b_t$ preserves fiscal solvency if:
  
  \[ b_t = E_t [\text{PDV of primary balance } t, \ldots, \infty] \]

- 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
  
  - $\rho = 0.04$ and significant for countries w. $E[b] < 62$
  
  - $\rho$ 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