Is the Euro Crisis Over?

Hyun Song Shin

Princeton University Bendheim Center for Finance
Spring Alumni Event

New York City, April 18, 2012
Three (Interlocking) Features of the Euro Crisis

• Sovereign debt crisis

• Banking crisis

• Balance of payments crisis
  – Cross-border capital flow reversal
  – “Sudden Stop”

Common thread is the bank leveraging/deleveraging cycle
Figure 1. Total Liabilities of Barclays (1992 - 2007) (Source: Bankscope)
Figure 2. Barclays, risk-weighted assets and total assets (Source: Bankscope)
Figure 3. Société Générale liabilities 1999 - 2010 (Source: Bankscope)
Figure 4. Société Générale risk-weighted assets and total assets (1999 - 2010) (Source: Bankscope)
Corporate Finance of Banking

\[
\begin{array}{c|c|c}
& L & \\
A & Equity & Debt \\
\end{array}
\]
Figure 5. Barclays: annual change in assets, equity and debt (1992-2010) (Source: Bankscope)
Figure 6. BNP Paribas: annual change in assets, equity and debt of (1999-2010) (Source: Bankscope)
Figure 7. Societe Generale: annual change in assets, equity and debt of (1999-2010) (Source: Bankscope)
Figure 8. Barclays: 2 year change in assets, equity and debt (1992-2010) (Source: Bankscope)
Figure 9. Societe Generale: 2 year change in assets, equity and debt of (1999-2010) (Source: Bankscope)
Why did European banks expand so much?

Two candidate hypotheses:

- Advent of Euro opened up cross-border banking market within the eurozone
Figure 10. Cross-border euro-denominated claims and liabilities of eurozone banks (Source: BIS Locational Statistics, Table 5A)
Figure 11. Four quarter growth rate of cross-border euro-denominated liabilities of eurozone banks (Source: BIS Locational Banking Statistics Table 5A)
Figure 12. Foreign claims of European BIS-reporting banks on counterparties in Spain (Source: BIS consolidated banking statistics, Table 9D)
Figure 13. Foreign claims of European BIS-reporting banks on counterparties in Ireland (Source: BIS consolidated banking statistics, Table 9D)
Current Account Balance as % of GDP

Figure 14. Current account of Ireland and Spain (Source: IMF International Financial Statistics)
Figure 15. Share of Eurosistem Main and Long-term Refinancing Operations (Jan 2003 - Nov 2011) (Source: “Sudden stops in the Eurozone” Silvia Merler and Jean Pisani-Ferry (2012), data from European Central Bank)
Figure 16. TARGET 2 net balances in the Eurosystem (Source: “Sudden stops in the Eurozone” Silvia Merler and Jean Pisani-Ferry (2012), data from Eurosystem central banks)
Some Historical Parallels

- US mortgage crisis 2007
- Japan’s bursting bubble 1990

Slow deleveraging eventually results in bad assets and public recapitalization of banks

**How much?** **How soon?** **How?**

**Some lessons from Japan**
Figure 17. **Japan**: Loans and discounts of major and regional banks (in red) and M2 money stock (in blue)  
(Source: Flow of Funds, Bank of Japan)
Some Characteristic Features of Boom and Bust

• Boom phase
  – Rapid increase in lending
  – Increase in loan to deposit ratio
  – Increasing incidence of “non-core” liabilities

• Bust phase
  – Loans and loan-to-deposit ratio decline
  – Liquidity support by central bank cushion (or delay) the process
  – Zombie banks and zombie firms
Figure 18. **Eurozone:** Loans to non-MFIs (monetary and financial institutions), excluding general government (in red) and deposit liabilities to non-MFIs excluding central government (Source: European Central Bank)
Figure 19. **Eurozone**: Loan to deposit ratio. Numerator is loans to non-MFIs (monetary and financial institutions), excluding general government. Denominator is deposit liabilities to non-MFIs excluding central government (Source: European Central Bank)
Figure 20. Eurozone and Japan: Loans in Euro area (in red) and in Japan (in blue) normalized to 1.0 at crisis date, and measured in months from the crisis date. Eurozone crisis date is September 2008. Crisis date for Japan is January 1991 (between stock market peak and real estate peak)
Lessons for Eurozone from Japan

• Liquidity versus solvency
  – Comparing Eurozone LTRO with Bank of Japan’s monetary policy in early 1990s
  – But loans granted during the bubble phase almost always go bad, and must be written off eventually

• Pre-condition for restructuring is political will, which needs shared diagnosis of crisis
  – Japan’s deleveraging started 7 years after crisis date (see figure)
  – Restructuring entails fiscal costs, which is an added complication in Eurozone

Question: How well can the institutions and governance structure of the Eurozone cope with strains of the restructuring process?
What Implications for Rest of the World?

- Implications for the US economy

- Emerging economies
Figure 21. US dollar foreign currency claims of BIS banks and US commercial bank total assets (Source: Flow of Funds, Federal Reserve and BIS locational banking statistics, Table 5A)
Figure 22. European global banks add intermediation capacity for connecting US savers and borrowers.
Figure 23. US Dollar-denominated assets and liabilities of euro area banks (Source: ECB Financial Stability Review, June 2011, p. 102)
Figure 24. Foreign claims of BIS reporting banks on US counterparties (Source: BIS consolidated banking statistics, Table 9D)
Figure 25. Amount owed by banks to US prime money market funds (% of total), based on top 10 prime MMFs, representing $755 bn of $1.66 trn total prime MMF assets (Source: IMF GFSR Sept 2011, data from Fitch).
Emerging Economies

- Emerging Europe

- Rebalancing in China

- Asia ex China and Latin America