Systemic Risk II

Simon Johnson
MIT Sloan and
Peterson Institute for International Economics

How High Is Systemic Risk?

- How would you know?
  - Probability a SIFI could fail
  - Damage that would be done by such failure
  - Costs of a rescue to prevent such failure
  - Costs of moral hazard induced by increased probability of future protection for creditors
- How big is JP Morgan Chase?
  - $2.289 trillion or $3.9 trillion?
  - Fortress balance sheet? $135 tier 1 common (Basel I)
  - 259,547 employees

What Is Systemic Risk?

- Can we measure it in advance of a crisis?
  - Attempts to develop centrality metrics based on stock price movements
  - Hovakimian et al: bank size, leverage and asset risk
- Is it limited to the financial sector?
  - Potential impact of derivative trading
- Was it brought under control by Dodd-Frank?
  - Tarullo speech: TBTF remains, need size cap + higher capital requirements for larger financial firms
- Is higher systemic risk from financial institutions an issue just in the US?
  - Role of banks in European crisis; potential transmission to US
  - Implications for emerging markets

Implications of Systemic Risk

- How should we “save” a financial system
  - Ambrose et al: role of FDIC guarantees
- What are the costs of providing more generous or more effective downside protection?
  - Sheila Bair: Bull by the Horns
  - Hagendorff et al: more risk-taking by SIFIs?

Ambrose, Cheng, King

- Impact of FDIC's Temporary Liquidity Guarantee Program
- Reduction in yield of AAA debt issues
  - Positive reaction by bondholders
  - Negative reaction by stockholders
- Implication: ability of FDIC to make good on these guarantees was not question
  - Balance sheet of the US can be used to stabilize the financial system
  - Dodd-Frank makes it harder but not impossible to provide this support
- But is this what you want to do?

Hovakimian, Kane, and Laeven

- Measure systemic risk using publicly available data
  - Use Merton approach to pricing put option on bank assets; fair value of insurance
  - Calculate insurance premium without particular bank, to find systemic impact
- Major advantages
  - Real time data, can be agnostic across sectors
  - Transparent
- Suggestions
  - Take us through episodes, both actual crisis and no crisis
  - Does it work out of sample: before and after estimation period; other countries?
  - What does it miss, in terms of dynamics of crises

Hagendorff, Keasey, and Vallascas

- Figure 1: global expansion in bank size relative to GDP
- Systemically larger banks: more aggressive risk-taking, at least in last credit cycle
  - If not earlier, why not? What exactly changed?
- What are the incentives going forward
  - In the US, post-Lehman. Could Goldman Sachs fail?
  - In the EU, as sovereign debt crisis spreads. Role of the ECB: provide unlimited liquidity or increase dissolution risk for the euro?

What Do We Know?

- Size matters: bigger banks are more dangerous to the economy
  - Deutsche Bank: 85% of German GDP; over 2 trillion euros assets, equity around 55 billion (Taunus implications?)
  - Tarullo, SAFE Banking Act: cap bank size as a percent of GDP
    - US GAAP does not measure derivative exposure adequately, for financial stability purposes
- We should also worry about leverage
  - Sheila Bair's SRC: limit to 10:1, or lower
  - "risk-weighted" approach is completely broken: EU
- Need a great deal more equity in our financial system: see new Admati-Hellwig book
  - Retain earnings; suspend share buybacks