FEDERAL RESERVE BANK of NEW YORK

“Crisis Transmission in the Global Banking Network”

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October 2015 BIS Global Financial Connectedness, **Basel.**

Overview of paper

1. **Syndicated loan data matched with bank balance sheets**
   - Impressive! covers 15 years, 110 countries, 1800 banks
   - Allows analysis of network linkages through syndicated loans and via balance sheet
   - Exclusive focus on interbank connections for exposure

2. **Main issue: Crisis transmission into bank profitability**
   - Identify crisis countries
   - Study direct and indirect exposure of banks through interbank lending in syndicates
   - Role of key intermediary status ("betweenness centrality")

3. **Key results**
   - First and second degree exposures reduce bank profitability
   - Crises hit banks profitability more if key intermediary status

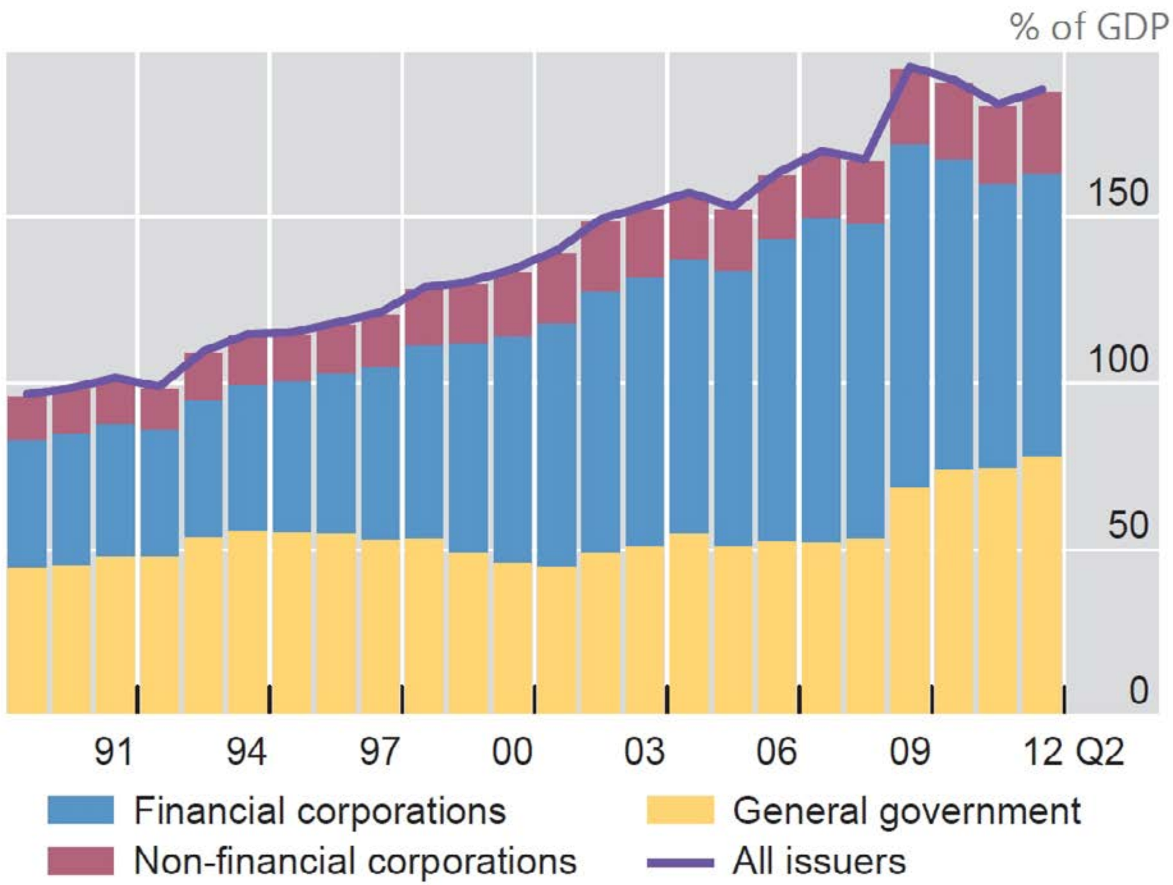
Overview of comments

1. **Interbank Exposures**
   - Why interesting as a focus?
2. **Mechanisms for crisis transmission into bank profitability**
   - What is different about normal times versus crises?
   - Alternative paths to exposure
   - Justifying role of network position
   - Role of key intermediary status (“betweenness centrality”)
3. **Policy implications**
   - Role of bank characteristics
   - LOLR
   - Recovery and resolution

Interbank Exposures: Why Interesting?

Debt securities by financial corporations about doubled relative to GDP during 1997-2012.

Total debt securities

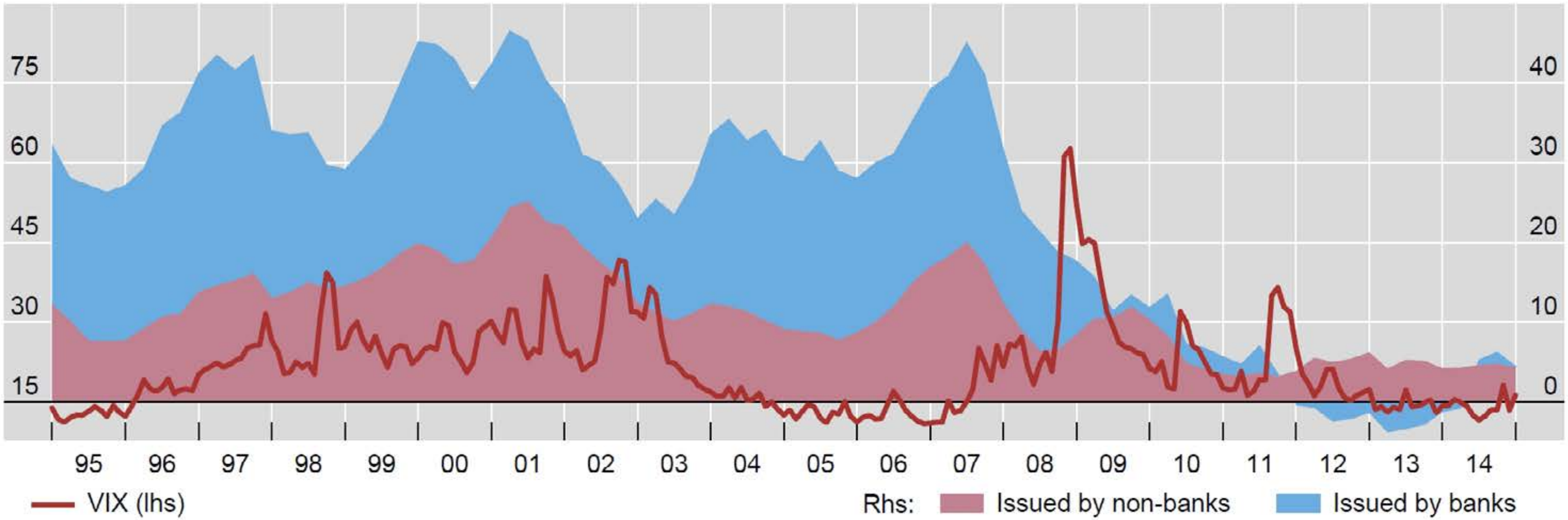


Notes: Growth of debt securities market for a fixed sample of 17 countries for which reporting begins in 19[illegible]

Source: Gruic & Wooldridge, BIS Quarterly Review, Dec 2012. p. 74.

Bank issuance was particularly strong, and collapsed after the recent global crisis.

International debt securities[2]



[2] Net issuance. All instruments, all maturities, all issuers.

Source: Cohen & Koch, BIS Quarterly Review, March 2015. p. 15.

Syndicated loans are about 10 percent of cross-border interbank loans, and also important in lending to non-banks and governments. Useful to explore detailed counterparty and loan syndicate data.

Mechanisms for crisis transmission into bank profitability

Focus on crisis transmission into bank profitability

Most recent work has been on crisis transmission through banks, into lending to domestic and foreign counterparties.

- Bank balance sheet adjustment and lending channels explored

Crises, and related policy interventions, generate shocks to bank balance sheets and lending

- Globally active banks contract international issuance
- Pecking order on which borrowers are protected (core investment locations) and which vulnerable (funding, periphery)
- Retrenchment toward domestic v. cross-border lending c
- Reallocations of funding through internal capital markets

Hale, Kapan, Minoiu instead consider lender profitability

HKM Approach:

Bank exposure to crisis countries (direct, indirect) via syndicated loan.

Crisis changes: value of bank assets (interbank loans), so ROA;

bank default risk (z-score distance from default).

Extra role for network centrality of bank:

mechanism unclear for how “betweenness centrality” enters the exposure logic.

Q1. Beyond being a path to measuring exposure, what other logic for network metrics to influence valuation effects?

Q2. What is different about normal times versus crises?

Authors isolate the effects on ROA and bank risk from countries with systemic banking crises

≡ periods in which the domestic banking system experiences significant stress and receives at least three of five policy interventions (public guarantees, liquidity support, asset purchases, public takeovers, large restructuring costs) Laeven & Valencia 2012.

These crisis bank counterparties have valuation issues, and perhaps more correlated large declines in value and higher repayment risks.

Are the mechanisms for network effects, and the network-based exposure proxy for marking-to-market on loan book, just as applicable in normal times? Are crises special for transmission?

Q3. Bank return exposure only through syndicated loan book?

What is the most important form of return exposure to crises?

Can exploit other information in syndicated loans.

- Borrower bank exposure on the funding side.
- Exposure to lead bank or participants in syndicate
  - What if balance sheets of other syndicate participants degraded?
    - E.g. Does “lead arranger” bear the brunt of unused commitments?
  - Does key intermediary status correlate with lead arranger status and more balance sheet constraints and risks if stresses?
- Role of non-bank loan syndicates and trade finance.
    - Even if magnitudes are correlated across countries, return consequences may differ.
- Interbank loans are more volatile than loans to non-banks. Are interbank loan values on secondary markets also more volatile?

Q4. Bank return exposure dependent on bank business model?

Interact crisis exposure effects with balance sheet characteristics

Test which business models of banks (commercial bank, investment bank, subsidiary) are associated with more exposure, and if these differ between normal and crisis periods.

Concluding remarks and policy implications

Should policies should address valuation and risk exposures?

Does ROA matter?
Or just consider other metrics of bank health and stability?

What role for stress tests?

Do the interventions available in the crisis country (and included in the Laeven-Valencia database) matter for loan valuation effects and repayment risks?

What messages for discussion of international cooperation on LOLR and Recovery and Resolution?