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DISCUSSION OF "LIQUIDITY RISK AND CONTAGION

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WHAT THIS PAPER DOES

- Paper studies contagion failure within a financial system with interconnected banks.
- Contagion effects arise from the price impact from the sales of illiquid assets by banks faced with higher capital requirements or shocks to the prices of illiquid assets.
- Banks' balance sheets marked to market ⇨ a shock to illiquid asset prices decreases the bank's equity-to-asset ratios ⇨ further round of sales of the illiquid assets by banks to meet capital adequacy requirements ⇨ further depression of asset prices with possible insolvency for some banks.

MAIN FINDINGS

- A more diversified interbank credit market may *not* lead to a safer system…because in a more diversified system, a small shock experienced by one bank may induce more banks to sell their illiquid assets, exacerbating the price depression spiral.
- A liquidity requirement imposed on financial institutions may mitigate the contagion problem.

■ STRENGTHS OF PAPER

- Main contribution of this paper is the recognition of a potentially important source of contagion failure in an interconnected financial system via capital requirements and asset illiquidity.
- Financial system safety (its' resilience to shock) and the interconnectedness of the financial system are nonlinearly related in the sense that a highly diversified and interconnected financial system need not be safer.

⇨ Emphasizes important of liquidity requirements *in conjunction with* capital requirements.

▪ DETAILED COMMENTS

1. The endogenous contagion effect in the model hinges on the assumption that all the banks within the interconnected system hold *similar* illiquid assets for the price depression effect to propagate itself cross-sectionally.

   … What if banks hold different illiquid assets that trade in different markets?

   ⇨ Less severe contagion effect.

2. Paper also ignores potential impact of securitization. Although not all assets are securitized, many are, and this will virtually eliminate the contagion price effects from asset sales.

3. The paper *assumes* that a bank can meet its capital requirement *only* by selling assets.

… In practice, banks can also raise equity OR if the bank is a subsidiary of a BHC, the BHC can borrow through a sub debt issue and downstream the proceeds as equity to the subsidiary.

… Paper argues: "at times of stress raising equity may be expensive, may take time and may even be impossible, if capital markets are shut down".

… This doesn't seem a sufficient justification.

WHY?

- Reasons why capital market access may be difficult are completely *outside* the model. Within the model, no reason for bank to not be able to raise equity.
- Even if capital market access is not possible, why can't the bank use a rights offering?

4. Paper should explore *interbank* trading of loans. This will mitigate contagion effects as banks with excess capital purchase loans from capital-constrained banks. Would also permit demand for illiquid assets to be endogenized.

5. A significant limitation of the analysis is its partial equilibrium nature. The capital ratio of the bank is taken as a given, rather than being derived endogenously.

   With: (i) an interbank market for trading "illiquid" primary claims of banks (loans),

   (ii) the possibility of purchasing these claims at "artificially" low prices from capital-constrained banks, and (iii) no endogenous costs of equity capital

   ⇒ if the capital decision was endogenized, banks will wish to keep capital well above regulatory minimal to absorb shocks to asset prices

   ⇒ More efficient than keeping low-yield liquid asset buffers.

… In fact, banks have done precisely this (Flannery and Rangan (2004)).

6. Demand function for the illiquid asset is exogenously specified. It is assumed to be an exponential function which insures that the *s(p)* lies above the *d(p)* curve in Figure 1. This is important for producing contagion effect.

… What about other demand functions?

… Can the demand for the illiquid asset be endogenized somehow?

7. One problem with a liquidity requirement is that it simply freezes a liquid asset into immobility (Bhattacharya and Thakor (*JFI,* 1993). So, as soon as a bank uses its liquid asset to cope with a shock, the liquid asset is tied up and not available, requiring the bank to raise additional liquidity.

OVERALL ASSESSMENT

- Interesting paper. Addresses important questions.
  - However, issues related to *contemporary* banking systems -- with securitization, access to capital markets, etc. -- ought to be integrated into the analysis, with *endogenous* frictions impeding possible access to equity capital.
  - The bank's capital ratio ought to be an endogenous choice variable, so that one can see the bank's privately-optimal tradeoff between excess capital and excess liquidity.

    … Hard to assess policy prescriptions regarding liquidity requirements in the absence of this combined treatments.

Overall: Interesting paper. Technically well-executed. I enjoyed reading it.