Session 4: International Transmission and Real Effects

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"Learning from the Crisis: Financial Stability, Macroeconomic Policy, and International Institutions"

The key question in all three papers

- **Does distress in the financial sector keep creditworthy individual or firms from receiving finance ("bank lending channel")?**
- **If not, then probably we don't need the bailouts after all….**

Empirical studies of bank lending channel

- **Joint endogeneity problem:**
  - Crisis causes decline in credit demand, so observed decline in credit need not reflect a contraction in supply
  - Looking at the price of credit does not help us sort things out, because it is affected by changes in monetary policy and in risk premia (due to the crisis)

Empirical studies of bank lending channel in crises

- **Peek and Rosengarten (2000):**
  - Losses in Japan led U.S. subsidiaries of Japanese banks to cut back credit in the U.S.
- **Dell'Ariccia, Detragiache, and Rajan (2008)**
  - Difference-in-difference approach: Sectors more dependent on external finance experience stronger output contractions during banking crises than other sectors

- **3,823 manufacturing firms from 24 emerging countries**
- **1,296,726 mortgage and consumer loans in Germany**
- **794 corporate CFO survey responses in U.S., Europe, and Asia**

3,823 emerging market firms (Tong and Wei)

- **Countries in sample not experiencing a home-grown crisis (except Hungary and, perhaps, Russia)**
- **They are affected by crisis through drop in export demand, sudden stop in capital inflows**
- **Outcome variable: manufacturing firm stock price decline during crisis**

3,823 emerging market firms (Tong and Wei)

- **Diff.-in-diff. exercise:**
  - More financially dependent sectors in terms of working capital have larger stock price decline. No effect on investment
  - Differential effect is weaker in countries with larger DFI pre-crisis and stronger in countries with larger non-DFI capital inflows

3,823 emerging market firms (Tong and Wei)

- **Message:**
  - Even though EM financial sectors were largely healthy, crisis in advanced countries hurt access to working capital finance for large EM corporations
  - Large exposure to portfolios inflows worsened the crunch

Comments

- **Distinction between working capital and investment very nice**
- **It makes sense to find stronger effects for WP, as decline in demand more likely in the case of investment**
- **A bit surprising that healthy local financial intermediaries cannot step in and provide working capital to large corporates in EMs. Where is the barrier?**

Comments

- **Less convinced about using decline in stock prices as measure of real effect of crisis**
  - Need to control for change in leverage not just pre-crisis level of leverage
  - Stock price declines in turbulent times may reflect contagion, fire sales, panic, rather than fundamentals

Comments

- **EM stocks are not always liquid, and withdrawal of foreign investors during crisis would reduce liquidity further**
- **As long as all these factors play in the same way for sectors with different financial dependence no problem, but can we be sure?**
- **When data become available, repeat tests for output, investment, working capital, profits**

Comments

- Unconvinced about methodology to rule out differential demand shocks across sectors (September 11 reflected both supply and demand disruptions…)
- Could use consumption data to identify more cyclical industries (e.g. durables)

Food for thought

- **EMs tried to insure themselves against sudden stops in inflows by accumulating huge amounts of foreign exchange reserves at (sometimes) considerable expense**
- **Does evidence of real effects suggest that EMs needed more insurance, or that they should have drawn down reserves more aggressively?**

1,296,726 mortgage and consumer loans in Germany (Puri, Rocholl, and Steffen)

Great natural experiment and dataset:

- **Difference-in-difference approach: Did German savings banks affiliated with Landesbanken heavily exposed to subprime tighten consumer credit more than other savings banks?**
- **Answer: yes. After August 2007 acceptance rate barely changes for healthy banks, while it drops from 97.5% to 86.4% in banks linked to troubled Landesbanken**

1,296,726 mortgage and consumer loans in Germany (Puri, Rocholl, and Steffen)

- **Unlikely that this had anything to do with a differential decline in the quality of borrowers**
- **Evidence from contiguous regions supports this view**
- **Conclusion: creditworthy German households were unable to get credit from affected savings banks**

1,296,726 mortgage and consumer loans in Germany (Puri, Rocholl, and Steffen)

- **Comments:**
  - How easy might have been for a rejected applicant to borrow from a bank other than the local savings bank?
  - Is the German market so segmented that they could not?
  - Is the need for a relationship causing segmentation?

1,296,726 mortgage and consumer loans in Germany (Puri, Rocholl, and Steffen)

Food for thought:

- **Some Landesbanken built large exposures to subprime while others did not**
- **Same is true for other categories of banks in other countries (not everybody was dancing with Chuck Prince….)**
- **Is it just random variation, or are there systematic factors behind different behavior (size, diversification, internal risk management, organization, pay structure, ….)?**
- **Shouldn't we know the answer before reforming regulation and supervision?**

794 CFO survey responses in U.S., Europe, and Asia (Campello, Giambona, Graham, Harvey)

- **What do firms do with their cash management when faced with the "Great recession"?**
- **Firms held large financial buffers pre-crisis:**
  - Cash (median of U.S. sample: 9% of assets)
  - Lines of credit (median of U.S. sample: 18% of assets)
  - Cash-flow (median of U.S. sample: 8% of assets)
  - Hence, total pre-crisis liquidity was 35% of assets.

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- **Firms cut back on planned expansion:**
  - Change in planned investment: -10% (median of U.S. sample)
  - Change in tech spending: 0
  - Change in planned employment: -5%

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- **Firms draw on their credit lines**
  - If not now, when?
- **Terms of new credit lines worsen**
  - higher fees, higher interest rates, shorter maturity
- **More marginal firms more severely affected**
  - Not paying dividend, small, private, non-investment grade, negative cash flow…
- **About 20% of firms had trouble renewing credit lines**
  - negative cash flow a big factor

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- **Overall, volume of credit lines unchanged: as marginal firms are cut off good firms, which didn't need lines before, sign up**
- **(Similar evidence on trade credit…)**
- **Looking at aggregate data misleading!**

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Food for thought:

- **Are the firms that suffer from lack of liquidity marginal firms that should exit anyway (creative destruction, as with gains from trade)?**
- **Or are they innovators which will lead employment creation and growth in the future?**

Final general comment

- **At some point policy makers will want to know not just whether there is evidence of a bank lending channel, but also how strong it is and at what time horizon do the effects kick in**
- **This knowledge is needed to design crisis management strategies**

Thank you