Do exposures to sagging real estate, subprime or conduits abroad lead to contraction and flight to quality in bank lending at home?

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This paper

- Banking transmission channel from real estate shocks abroad (USA) to domestic credit markets (Germany)

- Initial condition: a group of German banks is exposed directly or indirectly to the US real estate market; another group is not

- After the US real estate collapse they analyze the effects of exposure:
  1. The supply of credit (bank lending at home)
  2. The loan-portfolio allocation (composition of borrowers)

Data and Main Results

- Main data source is German Credit Register (CR) and Moody's ABCP (M):
  1. The Y is measured using bank-firm loan level data
  2. The main X(s) are represented by three measures of bank-level pre-crisis exposure:
     a) direct lending to US firms in the real estate sector (CR); b) direct lending to US subprime lenders (CR); c) indirect through ABCP conduits (M).

- The authors find:
  1. Exposed banks contracted credit supply more than non-exposed banks following the collapse
  2. The quantity of such contraction depends on amount and type of exposure - more robust and stronger effect for type c)
  3. Exposed banks re-allocated credit to safer (low ex-ante insolvency ratios) industry-region combinations - flight to quality

Outline of my Comments

- Very interesting and relevant paper - Clear research question - Nice data

- Main comments:
  1. Identifying assumptions starting from a simpler model specification
  2. Valid counterfactual(s): Intensity of exposure and pre-trend analysis
  3. On the timing of the external shock

- Other (minor) comments

Model specification: a simpler setting

- The authors start with a model in first difference. Starting from a model about levels:
  $Y_{it} = F_i + \gamma X_{it} + \delta_0 \lambda_t + \delta_1 \lambda_t E_i + \delta_2 \lambda_t X_{it} + \epsilon_{it}$

- with $\lambda_t = 0, 1$ an indicator for pre-post collapse in US housing market and E_i an indicator for exposed vs non-exposed banks

- Taking first differences:
  $\Delta Y_{it} = \delta_0 + \delta_1 E_i + \gamma X_{it-1} + \eta_{it}$
  where $\eta_{it} = \delta_2 \gamma X_{it} + \Delta \epsilon_{it}$

- By controlling for ex-ante bank characteristics (X_{it-1}), the authors have still left the red term in the error

- Not a problem for the estimation of δ_1 if E_i is uncorrelated with this term

- In words, being exposed is not correlated with changes in other variables that have an impact on the growth rate of loans

Intensity of exposure

- E_i is computed by three measures of intensity of exposure

- The sample consists of 1547 banks but only a small fraction is "exposed"

- Do all remaining banks (about 1500) provide a valid "control group" for the exposed banks?

    1. **US Real Estate Direct Exposure**: is about 667 millions on average and regards 41 banks - however exposed banks are, on average, 38 times bigger than non exposed

    2. **US Subprime Direct Exposure**: regards 78 banks BUT modest exposure of about 25 millions on average - the comparison among the two groups is ok but is the intensity of exposure enough to matter quantitively?

    3. **Conduit Exposure**: is about 9.700 millions on average BUT regards only 13 banks and the control group comprises banks that are exposed along other dimensions

Pre-trend analysis

- Irrespective of the three measures, exposed banks are bigger, less profitable (lower ROA), and and safer (lower NPL)

- Given the two groups are very different, I would be nice to see if, on average, between the exposed and non-exposed banks there are different pre-trends in the growth rate of granted loans

- It can be done graphically or by the means of placebo tests

- If pre-trends are absent, the reader feels more confortable with the comparison of such different groups

On the timing of the shocks I

House Prices and Production Construction sector – USA
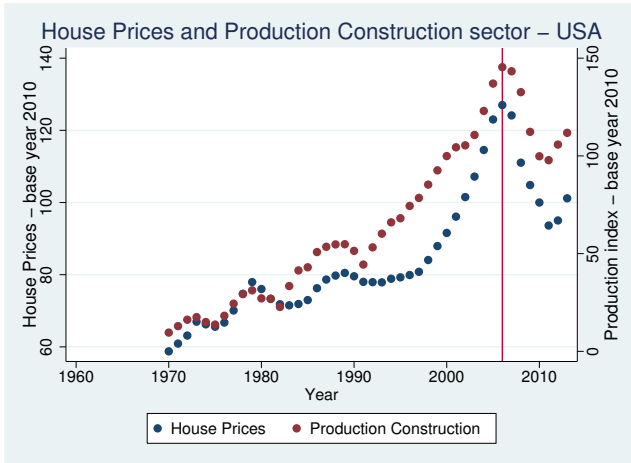
House prices and production in the construction sector started declining from 2006....

On the timing of the shocks II: ABCP

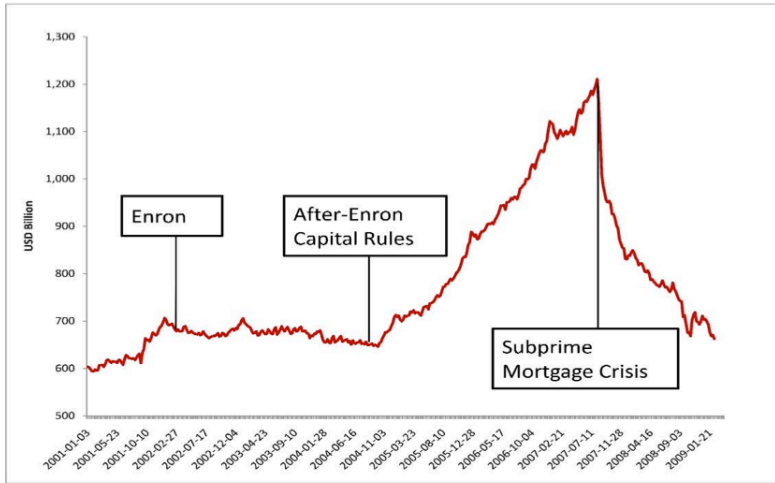... well before the crash in the ABCP market in August 2007....

On the timing of the shocks III

...and before the Lehman brothers collapse and the freezing of the interbank market (September 2008)

- The three measures of exposure seems to be related to different shocks at different point in time

- The subgroup of DIRECT exposed banks may have started declining loans before the others (starting from the end of 2006)

- This may explain the annual growth rate of lending to domestic firms of -0.1 percent in May 2007 in Germany

- It may create some pre-trends issues if direct exposed banks enter the pool of control group when analyzing the effect of INDIRECT exposure

Other comments - minor

- Is there any evidence about the interest rate reaction by exposed vs non-exposed banks?

- How balanced is the panel? Do some banks exit the database because of failures, M&As, etc.?

- Credit register data usually used to disentangle demand from supply of credit by exploiting multiple lending - although in Germany multiple lending is not diffused, can you perform such analysis as a robustness?

- Robustness check: exclude banks that have been hit contemporaneously by similar shocks to other european countries