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4th EBA Policy Research workshop
"Financial regulation and the real economy: a micro-prudential perspective",
London, November 2015.

De Jonghe *et al.*: "Holding strong in a storm: How banks reallocate credit according to their sector presence and specialization after a crisis"

Discussion by Kim Abildgren

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Views and conclusions expressed in the presentation are those of the author and do not necessarily represent those of Danmarks Nationalbank.

General assessment and outline of discussion

- An impressive and very interesting work that increases our knowledge of the links between banks and the real economy during the transition from a stress to a non-stress environment.
- Unique combination of several data sets.
  - Excellent illustration the potential for future research based on loan-level data from credit registers.
    - Currently, the both the euro area member states and Denmark consider to set up a credit register.
- Outline of the discussion:
  - Brief review of the data and main findings of the paper.
  - Discussion of identification/endogeneity issues.

Data and sample selection

- Rich Belgian data set that combines:
  - granular loan-level data from credit register
  - monthly balance sheets and quarterly income statements from banks
  - annual balance sheets and income statements from domestic corporate customers.
- Collapse data to firm-bank-month level
- Non-financial private corporate customers from 16 sectors
- 134,368 firms; 39 active banks; 160,224 bank-firm observations
  - Comment: More than 83% of the 160,224 credits are committed by the four biggest banks in Belgium - not much between variation.
- Sample period: July 2007 -
  - Comment: The reader might benefit from longer aggregated time series in Figure 1 in order to get an impression of “normal variations”
  - Comment: The reader might benefit from a plot of the aggregated time series evolution in the total balance sheet in Figure 1 as a supplement to the chosen sub-items.

Main findings and policy conclusions

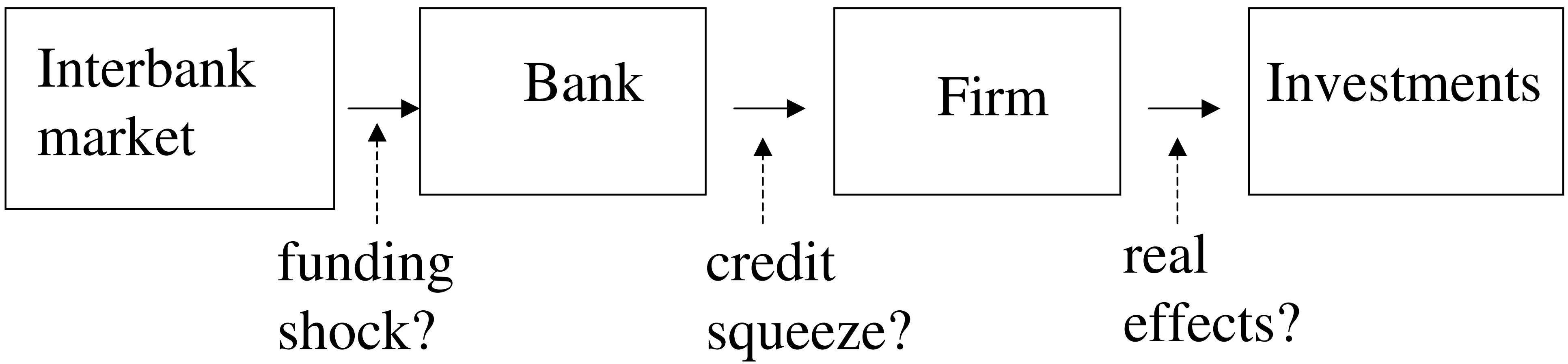
- Analyses lending behaviour of banks facing a negative interbank funding shock (Lehman Sep. 2008 collapse).
- Analyses reallocation of credit within the domestic loan portfolio.
- Main findings:
  - Banks reallocate credit to sectors where they have high sector presence (high market share)
  - Banks reallocate to sectors in which they are heavily specialized (large share of own exposure)
  - These channels are present over and above traditional reallocation effects based on firm characteristics (size, age, risk)
  - Real economic effects of shock limited:
    - limited effects on investments
    - no effect on profitability.
  - No evidence that banks hit by the funding shock reallocate credit away from younger and smaller firms.

Direction of causality important for story telling and policy implications - 3 identification issues

"*... estimate that the average firm,* ***as a direct consequence*** *of this* ***funding outflow****, faces a decline in the* ***supply of credit*** *of 4 percent...*" (page 2)

"*... the* ***funding shock*** *significantly impacts* ***credit supply*** *already 3 months after the shock started...*" (page 2)

"*... we also observe that the* ***real effects of the shock*** *are rather limited...*" (page 3)



Endogeneity issue 1: Identification of a negative funding shock at the bank level

"*The funding shock is defined as the difference of the time-averaged value of interbank liabilities in the post-shock vs. pre-shock period, scaled by the time-averaged total assets pre-shock*" (page 9-10)

- Interbank credit demand or credit supply?
  – A bank might reduce interbank borrowing because it experiences (or expects) lower credit demand and therefore doesn't need the funds.
- Should we look at gross or net interbank exposures?
  – A bank might reduce gross interbank exposures on both the asset and the liability side. Net exposures seems most relevant; it seems sensible to reduce gross exposures during a financial crisis.

Endogeneity issue 2: Identification of credit demand and credit supply at the firm level

- In Section 4, the paper makes use of firm fixed effects and group fixed effects to control for firm-specific credit demand (Size, Sector, Location).
- Why not control for other firm-specific variables?
  – It is not a credit supply effect if the banks' don't tighten their credit standards but nevertheless grant less credit to firms whose credit rating decline due to the crisis.
  – Furthermore, firms in financial distress or firms that experience sales problems *etc*. might demand less credit.
  – => It might be relevant to control for firm risk, availability of collateral and other firm-specific variables.

Endogeneity issue 3: Identification of the real effects of credit-supply shocks

- Could the firms' holdings of liquid assets be used for a clearer identification of effect of credit availability on firm investments in fixed assets?
  - If firms with large holdings of liquid assets reduce investments it's hardly the result of credit availability
- Control for regression to mean effects?
  - It is normal for firms to cut back on investments after a period of large investments
    => try to control for lagged investments.

Summing up

- Well-crafted and impressive paper
- Innovative data usage
- Very timely papir since the euro area countries curently consider to set up a credit register.
- Readers could benefit from an more throughout elaboration and discussion of the endogeneity issues.