Financial Instability and Credit Constraint: Evidence from the Cost of Bank Financing

Discussion by

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What does this paper do?

- Examines the change in cost of bank financing for working capital loans surrounding the financial crisis of 2008.
- Since the Lehman Brothers default and the ensuing crisis was exogenous to the Brazilian economy, this shock resulted in an exogenous inward shift in the supply of bank-loans. This, in turn, allows the paper to trace a causal link from credit supply to important borrower effects.
  - Cross-sectional changes in the cost of bank financing.
  - Nice as it allows one to identify which firms are affected the most during times of crisis.

Contributions

- Larger increase in the cost of bank credit for more financially constrained firms (those that paid a higher lending rate, those that obtained few loans before the crisis).
  - New measure of credit constraint
  - Provides evidence that credit supply shocks have differential impacts across firms in the economy.
- Rise in cost of credit greater for (1) large firms (2) firms with longer bank relationships.
- Rise lower for firms that (1) borrowed from several lenders before the crisis and (2) were collateralized.

Some Suggestions

- What are the implications of the potential endogeneity of cost of bank financing with maturity and size of loans on your empirical estimation?
  - Result show they negatively correlated, should maturity be on the right hand side?
  - If are assume they are exogenous, then use volume as right hand side variable.
  - Other characteristics such as collateralized amount could also be endogenous.

Some Suggestions

- What firms have access to public debt markets?
  - This also could provide some heterogeneity in exposure to the credit shock.
- Are some banks more exposed to the financial crisis?
  - can one get data on U.S. exposures?
- Large firm result puzzling.
  - “export argument” seems at odds with “multinational backstop”.

- More discussion on potential selection bias
  - Only observe firms that could get, or needed, *bank* loans.

A big suggestion: Go the final step

- That is: firm *performance*.
- Its very nice to show a better measure of financial constraint seems to “work”, but the big question is how credit shocks ultimately affect firm performance.
  - Do more financially constrained firms perform worse during the crisis?

Firm Performance

- The 2008 crisis emphasizes the need to understand the impact of shocks to providers of capital on their borrowers.
- If a firm can easily access external capital markets or switch from one source of private capital to another, then its <u>performance</u> should be insensitive to the shocks experienced by its capital providers.
- However, with frictions (adverse selection and moral hazard) in the economy, shocks that affect banks' ability to supply capital might result in suboptimal investment and working-capital management decisions for firms that extensively depend on them.

Firm Performance

- Therefore, a firm’s performance should be sensitive to unanticipated shocks experienced by the suppliers of its capital <u>over and above the firm specific demand side characteristics </u>such as profitability and growth opportunities.
- Establishing this link between a borrower's performance and its supply of credit has important implications for corporate finance and monetary policies.
- Huge identification challenge: separating the effect of firm-specific demand-side shocks (such as profitability and growth opportunity) from the supply-side shock.

Identification Challenges

1. If common economic shocks affect the performance of both the banking-sector and the real economy, then the task of separating the effect of firm-specific factors from bank-specific shocks becomes more difficult.
2. Further, if deterioration in a bank's health is itself caused by its borrowers' poor performance, then researchers face an uphill task in establishing the causation in the other direction.

What this paper can do

- Since the Lehman Brothers default and the ensuing crisis was exogenous to the Brazilian economy, this shock resulted in an exogenous inward shift in the supply of bank-loans. This, in turn, allows the paper to trace a causal link from credit supply to borrower performance
  - Stock prices/accounting performance, etc.
  - Further, can exploit cross-sectional differences in the degree of financial constraints since we now have a good measure.
  - This would really complete the circle.

Macroeconomic Determinants of Banking Default by Corporations in Brazil

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Motivation

- Large increase in bank credit extended to Brazilian firms.
- Scarcity of research on the link between macroeconomic environment and default by corporations borrowing bank credit.

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Empirical Strategy

- New default measure: ratio between # of credit operations past due between 61 to 90 days at the end of the month and the number of operations without delay at M-3.
- Structural Equation Model (SEM)
- Autoregressive vector model with exogenous variables (VARX)

Findings/Contributions

- Appreciation of the Dollar against the Real increases default with a 2 month lag.
- Increase of Selic interest rate increases default with a lag of 8 months.
- However, both these effects are small comparted to the impact that economic activity, measured by physical production, has on corporations default.
- Policy impact: Most important macroeconomic policy is the one that enables the growth of economic activity.

Comments

- Cost/benefits of Macro versus firm-level models
  - Sample sizes
  - Fit
  - Policy implications
- Exposition Suggestions:
  - More detail in Tables
  - More comparison of main findings to other countries
    - Macro and firm level