Corporate Debt Structure, Access to Credit, and Monetary Policy

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Motivation

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$\rightarrow$ Important to disentangle what the frictions driving corporate debt structure (and their interaction with MP) are

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   - Heterogeneous firms seek funds to finance productive investment
     - Low risk firms issue corporate bonds
     - Medium risk firms obtain bank loans and benefit from monitoring
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   - Heterogeneous firms seek funds to finance productive investment
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     - High risk firms are credit rationed
   - Sorting of firms into these categories is endogenous and depends on aggregate outcomes

   $\rightarrow$ Effect of monetary policy shocks on debt composition is consistent with the data

General comments

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- Spreads can move for several reasons
  - The paper would benefit from explicitly identifying the driving forces in the model
    - Argument in the paper: *"bond finance becomes relatively cheaper (...) because bank equity is squeezed by the monetary policy contraction, which hampers (banks) ability to collect deposits and supply credit to firms"*
    - However, I'll argue this explanation is only partial and other channels are at play
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- Room for strengthening quantitative contribution

What moves spreads? A (very) simple model

- Two types of firms: one is financed via bank loans, the other via bonds
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- Asset returns:
  - Bonds pay R^B (endogenously determined) with probability $1-p^B \in [0,1]$ and zero o/w
  - Loans pay R^L (endogenously determined) with probability $1-p^L \in [0,1]$ and zero o/w
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- In equilibrium:

$$(1-p^L)R^L = (1-\gamma)R + \gamma(1+\delta)R$$
$$(1-p^B)R^B = R$$

A simple model: Spreads in equilibrium

- Let s^L and s^B denote loan and bond spreads, resp.

$$s^L \equiv R^L - R = \frac{(p^L + \gamma\delta)}{1 - p^L} R$$

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- $p^L > p^B$ implies $s^L > s^B$, and:

$$\frac{\partial \left(s^L - s^B \right)}{\partial R} > 0 \quad \underline{\text{even if } \delta = 0}$$

$\rightarrow$ Spread between loans and bonds widen even if no financial friction on the side of banks

Other forces driving spreads

- In the simple model:

$$\frac{\partial^2 \left(s^L - s^B\right)}{\partial \delta} > 0$$

→ Spreads widen as banks become more constrained

→ How does bank equity respond to MP shocks in the data?

Profitability can increase if passthrough to deposits is low

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- Outside of the simple model:
  - Bank competition and endogenous markups
  - Time-varying risk aversion

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  - Variance decomposition

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- It would pay off to put a stronger emphasis on the quantitative properties of the model
- Going beyond IRFs: Stochastic simulation of the model and business/credit cycle accounting
  - Volatility and correlations of key endogenous macro-financial variables
  - Variance decomposition
- Additional elements to improve model fit?
  - Investment adjustment costs: capture asset price dynamics
  - Habits in consumption: capture hump-shaped responses obtained in the empirical section
  - ...

Other (minor) comments

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  - Currently, calculated as NFC loans/equity (leverage of 2)
  - Standard practice in macro-banking to use total assets/equity instead (leverage above 10)

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- Bank equity returns calibrated to 1.3% (seems way too low?)

Concluding remarks

- Commendable effort in rigorously microfounding corporate debt structure in macro
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- Commendable effort in rigorously microfounding corporate debt structure in macro
- Timely and policy relevant!
- Further isolating the mechanisms at play would make the model more informative
- Could benefit from more emphasis on the quantitative properties