Discussion of “Bond Finance, Bank Finance, and Bank Regulation”
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What this paper does

Model  general equilibrium macro-finance model
intermediaries $=$ banks or bond mutual funds

Application  bank capital adequacy ratios

with bond finance, optimal policy is more lenient

cap ratio $\uparrow$ $\implies$ loan spreads $\uparrow$

with bond finance: loans $\rightarrow$ bonds substitution

$\downarrow$ bankers’ wealth share, loan supply
Why should we care?

1. Do the "details" of financial intermediation matter for macro outcomes?
   
   Holmstrom and Tirole (1997), Bolton and Freixas (2000), ...
   
   *bonds vs. loans*: DeFiore and Uhlig (2011, 2015), Crouzet (2017, 2021), ...
   
   general equilibrium + global, non-linear solution (CT)

2. How should policymakers set capital adequacy ratios for banks?

   Repullo and Suarez (2012), Davydiuk (2017), Elenev et al. (2020), ...

   indirect impact of bond financing
Production

Discrete time: $t = dt, 2dt, ..., n dt, ...$

$t$ \-----------------------------\ $t + dt$

\[ \alpha \]
\[ 1 - \alpha \]

safe \quad \rightarrow \quad ak_t dt

risky

\[ 1 - \lambda \] \quad no default \quad \frac{a}{1 - \lambda} k_t dt

\[ \lambda \] \quad default \quad 0
Debt contracts

Payoff to intermediary \( n \in \{ \text{bank, bond} \} \)

\[
\begin{align*}
t & \quad \longrightarrow \quad t + dt \\
1 - \lambda & \quad \text{no default} \quad 1 + r^n_t dt \\
\lambda & \quad \text{default} \quad q_t^{-1} (-\nu_t dt + q_{t+dt} (1 + \mu_t^k dt + \sigma z_t - \kappa^n dt))
\end{align*}
\]
Comment 1: how to interpret debt contracts?

What drives firm "default"?

- solvency: no
- liquidity: maybe, but
  - $z_t$ shocks (capital quality shocks) don’t trigger default
  - firm could get transfers from the expert that owns it
  - firm could cut capex

If "default" is exogenous, then what do the debt contracts capture?

- equity-like features (upside from good shocks to $q_{t+dt}$, $z_t$)

what does this correspond to in practice?

does it matter for the quantitative results?
Comment 2: discrete vs. continuous-time

In the continuous-time limit ($dt \to 0$):

- total default probability is still $\lambda$
- so probability per unit time is $\lambda/dt \to +\infty$
- same for probability of becoming risky/safe
- “immediately” move between states

Why bring this up?

- more natural to use Poisson transition rates
- but: exposure of lenders to aggregate risk may be become $o(dt \cdot dZ_t)$ (as $dt \to 0$)
Comment 3: calibration

Target loan/bond moments

“risk premium” on bonds/loans

share of loans to total debt

(DeFiore and Uhlig, 2015)
Loans as a fraction of the total debt of corporations

(Crouzet, 2021)
Comment 3: calibration

Target loan/bond moments

“risk premium” on bonds/loans
share of loans to total debt

(DeFiore and Uhlig, 2015)

What would a calibration to lower loan share imply?

current calibration may overstate relative benefits of bank financing

∴ optimal capital adequacy ratios might be closer to 6%
Comment 4: externalities

Markets are incomplete in this model

cannot raise outside equity

The paper states that this leads to "pecuniary" externalities

too much leverage relative to first-best

\[ \therefore \] counter-intuitive predictions

shutting down bond market increases TFP

want: leverage policy chosen by constrained planner — but this is difficult ...
1. How to interpret $\kappa^{\text{bank}} < \kappa^{\text{bond}}$?

   Bolton and Scharfstein (1996): bondholders are worse at *avoiding* liquidation conditional on liquidation, do (secured) bondholders have lower recovery rates?

   see Carey and Gordy (2007)

2. Equation at the bottom of p.8: maybe it should be $R_t - r_t^\lambda$? (Same for equation at top of p.9.)

3. Does it matter for the optimal policy results that the mass of bankers, experts, and households seems to be the same (p.11)? (I don’t think so, since all welfare functions seem to peak around the same capital requirement; worth mentioning if that’s correct.)

4. I don’t understand the path of bank leverage in the middle bottom panel of Figure 4. Why is it 0 throughout for the economy with bond financing? Does this mean that banks hold no deposits in that calibration?

5. p.24: in what sense is bond financing "more costly?" (I thought risk premia were calibrated to be lower — does that change as adequacy ratios rise?)
Conclusion

Very interesting model with insightful counterfactuals

Main suggestions

- explain more clearly what the debt contracts represent
- explore calibrations with lower loan shares
- clarify role of externalities