Heterogeneity in Corporate Debt Structures and the Transmission of Monetary Policy

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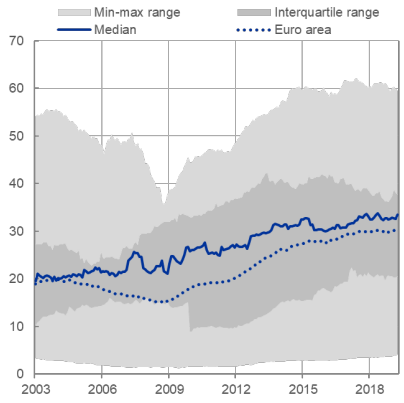
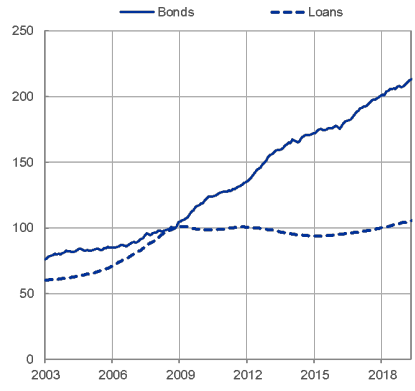
Bond-based finance increasingly relevant at euro area and country level

Cross-country distribution of bond finance ratio $(B/L)_{i,t}$



Euro area corporate bond and loan volumes (index)



Note: The series in the RHS chart are indexed to October 2008, which corresponds to the trough in the euro area bond finance ratio.

Does shift in debt financing structures matter for monetary policy transmission?

Three aspects

1. Do bank loans and corporate bond volumes respond differently to MP shocks?
2. Does the answer to 1 depend on the financing structure prevailing prior to MP shocks?
3. Are the answers to 1 & 2 relevant for the overall macro transmission of MP shocks?

Theoretical predictions not clear-cut

- Example (re aspect 1): bank lending channel (Kashyap et al., '93) vs. preferences for bank/bond finance in bad/good times (Diamond, '84; Berlin and Mester, '92)

Current paper

- Builds empirical model to address these aspects simultaneously in a panel of EA countries
- Setting particularly suitable given high variation in financing structures across space & time

Modelling dynamic impact of MP shock and its interaction with debt structure

$$Y_{i,t+h} = \alpha_{i,h} + \left(\beta_{0,h} + \beta_h (\mathrm{B/L})_{i,t-1}\right) \mathrm{shock}_t^{IR} + \mathrm{controls} + \epsilon_{i,t+h}$$

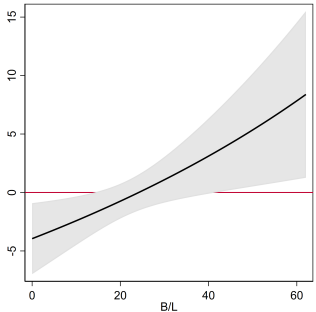
- Estimate IRFs via local projections (Jordà, '05)
- Extend standard macro model with credit volumes
- Endogenize financing structure and interact it with MP
- Identify policy shocks via high-frequency surprises (EA-MPD)

$$Y_{i,t} = \begin{pmatrix} \text{policy rate}_t \\ \log(\text{real GDP})_{i,t} \\ \log(\text{GDP deflator})_{i,t} \\ (\mathrm{B/L})_{i,t} \\ \log(\text{loans})_{i,t} \end{pmatrix}$$

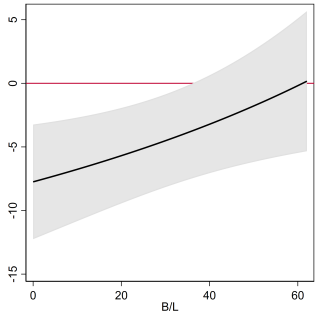
Bond markets acting as a spare tire

$$\frac{\partial Y_{i,t+h}}{\partial shock_t^{IR}} = \beta_{0,h} + \beta_h (B/L)_{i,t-1}$$

B/L response as a function of B/L



GDP response as a function of B/L



Note: The response horizon is $h = 24$. For the bond finance ratio the response is in percentage points and for GDP in percent. The grey area is the 90% confidence interval.

Main takeaways

1. Aggregate corporate debt structures matter for monetary policy transmission
2. Higher bond-to-loan ratios go along with weaker response in credit and GDP
3. Cross-country differences in debt structures source of heterogeneity in MP transmission