

Discussion of:

What we Learn from  
China's Rising Shadow Banking:  
Exploring the Nexus of Monetary Tightening  
and Banks' Role in Entrusted Lending

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Assess the role that Chinese monetary policy and banking regulation played in rise and risks of entrusted lending (EL):



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- CRZ Proposed Causes:
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- Since small banks face higher costs of attracting deposits, they pursued regulatory arbitrage more than big banks by making riskier loans not subject to LDR and SL requirements

## What does the data say?

- Really interesting part of the paper:
  - Table 4: The interest spread on loans to risky over non-risky industries is 1.28%.
  - Table 5: Monetary tightening significantly increases bank intermediated EL.
  - Table 6: It was small banks which significantly increased EL during monetary tightening.
  - Table 7: Monetary tightening led to increased EL in risky industries, more so for small banks.
- Recall that Kashyap and Stein (2000) found that small banks significantly decreased bank lending in response to monetary tightening in U.S. data.

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- After this choice, there are exogenous i.i.d. (across time and bank) deposit withdrawal shocks ( $\omega_t \in \{0, 1\}$ ) with  $\text{prob}(\omega_t = 1) = p^\omega$  and EL loans default exogenously with  $\text{prob } p^r$ .

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- The cost ( $r_t^b$ ) of meeting the LDR requirement given deposit shocks is higher for small banks than big banks but EL do not get counted in LDR.

# Regulatory Constraints

- **LDR constraint** (in CRZ, note lower  $D_t$  tightens constraint):

$$\frac{q_t B_t}{(1 - \omega_t) D_t / R_t^D} \leq \theta$$

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- **Risk Weighted Capital Requirements** with  $I_t^r$  “off balance sheet” (not in CRZ):

$$\frac{E_t}{w_B q B_t} \geq \chi \iff 1 + \frac{C_t + q_t^r I_t^r - D_t / R_t^D}{w_B q B_t} \geq \chi$$

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- **Liquidity Requirements** (not in CRZ):

$$\frac{C_t}{D_t / R_t^D} \geq \gamma$$

## Main Theoretical Result in CRZ

Proposition 3. As the likelihood of deposit withdrawals increases (i.e.  $p^\omega$  rises),

- 1 the share of risky assets ( $I_t^r$ ) in total assets increases
- 2 the amount of risky assets increases

in the bank's optimal portfolio.

- Intuition: When the risk of deposit shortfalls rises, the expected regulation cost rises for small banks and so does the return on risky investment relative to the return on bank loans.
- To complete the argument, one then needs to link monetary tightening with an increase in unexpected deposit losses (exogenous here).

## Some Questions about assumptions and auxiliary predictions of the BB-CRZ framework

- Strictly positive cash-flows, no solvency issues, no non-negativity constraints on dividends ensures linearity of decision rules (in equity) and a “representative” bank with no portfolio heterogeneity (data?).
- Regulatory constraints binding in the long run (steady state) (data?).
- Banks face a perfectly elastic supply of deposits at the given rate  $R^D$  (need to assume HHs with quasi-linear utility).
- With free entry and perfect competition, why do small banks with an inferior funding technology (higher costs) even exist?

## Why have a model?

- Could study feedback from policy to the real side of the economy (contraction leading to lower house prices leading to default leading to...)
- Policy counterfactuals. How sensitive is the economy to changes in LDR requirement?

## What can U.S. (Chinese) policymakers (monetary and regulators) learn from China (U.S.)?

- Acharya, et. al. (2013) document that the rapid expansion of ABCP since 2004 arose from changes in regulatory capital rules (banks told assets consolidated onto balance sheets from conduits need not be included in the measurement of risk-based capital).
- After a move by BNP Paribus in August 2007, there was a run on the “shadow banking” sector, interest on overnight ABCP rose 150 basis points over FF rate.
- Their main conclusion was that, surprisingly, the crisis in the ABCP market did not result in losses incurred by those actually invested in ABCP but by commercial banks.

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- Kashyap and Stein the examined effect of contractionary U.S. monetary policy on lending by liquidity constrained banks.
- Acharya et. al. examined the effect of capital regulation changes on the growth of shadow banking by capital constrained banks.
- I have not seen any paper which examines the **interaction** between monetary and regulatory policy for the U.S. as CRZ did for China.

Question



Data



Model



Insights



**OTHER**

## More on Entrusted Loans

- Chinese regulation that firms cannot lend to each other (trade credit in U.S.?)
- Banks can intermediate, provide monitoring, but have no skin in the game (rating agencies?)
- How to design EL contracts to minimize risk?

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Some more facts from Allen et. al. (2016), Two types of EL:

- ① Affiliated (within industry, parent to subsidiary, less info friction, low interest rates)
- ② Non-Affiliated (large (SOE) lenders to smaller borrowers during tight credit, mainly to real estate and construction suggests information asymmetries, double official bank loan rate consistent with risk based pricing)