

Discussion of "Liquidity Regulation and
Unintended Financial Transformation in
China" by Kinda Hachem and Zheng Michael
Song

Patricia Gomez-Gonzalez (Fordham University)

October 3, 2017

Conference on China's Financial Markets and Growth
Rebalancing

Paper Overview

- Objective: Trace the origins of China's growth in WMP to stricter liquidity regulation enforcement.

To do this the paper...

- ① Gives regulatory background on the Chinese financial sector and rules out capital requirements and deposit rate regulation.
- ② Presents model with *cross-sectional* prediction: banks more subject to liquidity regulation issue more off-balance sheet WMP.
- ③ Tests prediction using bank-level data late 2000s and early 2010s, presents further evidence and discusses alternative explanations (fiscal and monetary policy).

My comments

- ① Size of WMP with respect to total shadow banking sector in China.
- ② Match between data and model.
- ③ Comments to empirical part.
- ④ Other issues.

1. WMP with respect to Total Shadow Banking Sector

- Estimates of overall size of shadow banking sector point to 43% of GDP in 2013. Other estimates are higher: 80 or even 120% of GDP (Financial Stability Board). All cited in Elliott, Kroeber and Yu (2015).
- Using first estimate, WMP would be about half of shadow banking.
- McKinsey Global Institute (MGI) estimates of WMP as a share of overall shadow banking: 26% in 2014Q4.

Graph

1. WMP with respect to Total Shadow Banking Sector

- Estimates of overall size of shadow banking sector point to 43% of GDP in 2013. Other estimates are higher: 80 or even 120% of GDP (Financial Stability Board). All cited in Elliott, Kroeber and Yu (2015).
- Using first estimate, WMP would be about half of shadow banking.
- McKinsey Global Institute (MGI) estimates of WMP as a share of overall shadow banking: 26% in 2014Q4.

Graph

- Fastest growing between 2007-2014.
- I think paper talks about *growth*. Somewhat less clear in alternative explanations' section.

2. Match between model and data

- “Reserve requirement is a narrower type of liquidity regulation than loan-to-deposit cap because, unlike the latter, reserve requirements specify the form in which liquidity must be held.” (Section 2.2.2. in paper).
- Model’s liquidity regulation is a reserve requirement:

$$R_j \geq \alpha (X(\xi_j) - S_j) \quad (1)$$

where R_j are reserves, $X(\xi_j)$ are on-balance sheet savings, and S_j diverted savings off-balance sheet.

- Diverting makes (1) slacker. Less need for reserves.

2. Why not introduce a Loan-to-Deposit Ratio?

- Could use something more similar to a collateral constraint:

$$L_j - A_j \leq \alpha(X_j - S_j) \quad (2)$$

where L_j and X_j are total loans and savings attracted. A_j and S_j are assets and liabilities off-balance sheet.

- More constrained banks would still divert more savings, making (2) slacker.

2. Why not introduce a Loan-to-Deposit Ratio?

- Could use something more similar to a collateral constraint:

$$L_j - A_j \leq \alpha(X_j - S_j) \quad (2)$$

where L_j and X_j are total loans and savings attracted. A_j and S_j are assets and liabilities off-balance sheet.

- More constrained banks would still divert more savings, making (2) slacker.
- Interest rate differential between L_j and A_j would come to forefront. Heterogeneity on this differential would make interpretations on relative interest rate with respect to holding reserves unnecessary.

3. Comments to Empirical Section

- Convincing case of using *average* loan-to-deposit holdings.
- Regulated ratio absorbed by bank fixed effects. No time variability between 2008 and 2009. Suggests banks were hitting regulated ratios, but still engaging in “window-dressing”.

Table 1:
Non-Guaranteed WMP Issuance

	(1)	(2)	(3)	(4)	(5)	(6)
LDR	8.793*** (1.719)	9.764*** (2.623)	8.815** (3.283)	2.720* (1.381)		
Maturity	-0.145*** (0.016)	-0.138*** (0.018)	-0.181*** (0.042)	-0.045 (0.045)	-0.136*** (0.022)	-0.184*** (0.052)
MinROR		-0.171 (0.105)	-0.135 (0.082)	-0.108 (0.089)	-0.171 (0.097)	-0.127 (0.099)
WinDress					6.907* (3.583)	6.179* (2.938)
RegRatio					10.676*** (2.491)	8.175 (5.874)
Observations	41	31	31	79	31	31
Year Dummies	✓	✓	✓	✓	✓	✓
Bank Dummies	×	×	✓	✓	×	✓
R-squared	0.583	0.654	0.965	0.793	0.658	0.963

3. Comments to Empirical Section

- Comment on size: 1% increase in LDR implies an 8% increase in WMP/deposits. Large effect. (?)
- Choice of dependent variable: WMP/Deposits. Possible positive association if loans/deposits increase due to a drop in deposits.
- Inclusion of monetary policy and fiscal policy measures as control variables to limit concerns about competing explanations?
 - Monetary policy should be easy. Measure of money growth.
 - Fiscal policy, given local channel of stimulus, any within province variability to be exploited? Province instead of bank FE?

4. Other comments/open questions

- Do WMP have any exposure to real estate (directly or indirectly)? Regulation in 2011 limited exposure to real estate to 35% (MGI Report). Timing is close to stricter enforcement of loan-to-deposit ratio. Probably limited concern. Maybe future work?
- Role of government's implicit guarantee of WMP. Interesting ex post optimal policy considerations and possible moral hazard ex ante?
- Role the lack of international saving vehicles for Chinese savers play in WMP growth.

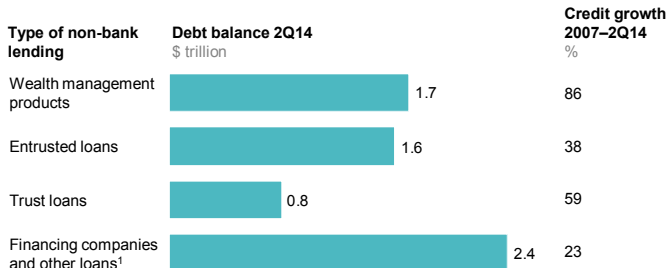
Wrapping-up

- Interesting and well-executed paper about the origins of the growth in the shadow banking sector in China.
- Learnt a lot about Chinese financial sector regulation and about shadow banking in China.
- Clear model with clean (and intuitive!) prediction which is then brought to the data.
- Useful insights on how to approach a sector that by definition is opaque. Among others, window-dressing, average instead of end-of-period balances, looking at maturity.

Shadow Banking Composition and Growth

Exhibit 42

China's shadow banking sector provides credit from four major sources



¹ Includes loans from world co-operatives, microcredit institutions, Internet peer-to-peer lending, and informal loans.

SOURCE: People's Bank of China; expert interviews; McKinsey Global Institute analysis

Figure: China's Shadow Banking Sector. Source: Debt and (not much) Deleveraging. MGI Report. February 2015.

Back to [Comment 1](#)