Comments on: Liquidity Regulation and Unintended Financial Transformation in China

1st Research Workshop on China's Economy

Dr. Laura E. Kodres

International Monetary Fund

April 29, 2016

Disclaimer: These views represent my own views and do not necessarily reflect the views of my colleagues, the management of the IMF, or its Executive Board

Big Picture Questions

- Why are we concerned about financial transformation in China?
- What are the risks of “poor” or “inadequate” regulation?
  - Excessive maturity and liquidity mismatches
  - “Run” risk and contagion
- What are the implications for supervision and regulation and sequencing of reforms?
  - Can the model help us make policy?

Shadow Banking Definition

- Definition: "credit intermediation involving entities and activities outside the regular banking system" (Financial Stability Board (FSB), 2013a) ...
- Add "and lack of a public backstop or safety net."
- Prefer to distinguish shadow banking from "market-based" financing, which is a broader concept.
  - Example: equity financing = market-based financing ≠ credit intermediation

What Are We Worried About?

Worried about systemic risks related to:

- Maturity transformation
- Liquidity transformation—promise immediate withdrawals of funds but assets held in less liquid (less marketable) instruments
- Leverage
- Credit risk transfer (transfers the risk of default from one party to another)

What Are We NOT Worried About?

- Growth of market-based financing of credit
- Financial access: savers and borrower using alternative means or institutions to execute transactions.
- Healthy risk-sharing across entities (households and corporates).
- Unleveraged transactions and investments (e.g., pass-through mutual fund with variable net asset value (NAV)).
- "Pure" payment systems with well-constructed infrastructures.

Role of Banks and Non-banks

- (Narrow) banks
  - take deposits and make loans—intermediate between savers and borrowers and collect valuable information about borrowers that depositor cannot obtain
  - Provide payments services/safe store of cash
- Non-banks
  - Take money from investors and intermediate it to other households and businesses—mostly without principal guarantees
  - May act as intermediary between businesses
  - Provide “credit” (say corporate debt) through a capital markets context

Role of Liquidity Management

- Limit leveraged borrowing
  - Bank Tool: **Loan-to-deposit ratio**
  - Bank Tool: Limit funds for lending (e.g., **reserve requirements**)
  - General Tool: Capital
  - Outcome: slower credit growth and hence slower real output
- Limit run risk
  - Bank Tool: Liquid asset ratio
  - Bank Tool: Deposit insurance
  - General Tool: Various liability restrictions (limit use of wholesale funding)
  - General Tool: Limit maturity mismatch

Basel III: Liquidity Management

- LCR – Liquidity coverage ratio
  - Like a liquid asset ratio to prevent run risk
  - Combines various liquid assets against funding needs in the short run
- NSFR
  - Balances future funding needs with liabilities so that maturities are generally balanced
  - Lowers maturity mismatches
- China adopted the LCR in Dec 31, 2015
- NSFR still under development; BCBS agreed date of implementation Jan 2018.

Shadow Banking: China View …

- Size:
  - 39% of China's GDP as of the end of 2012. [?]
  - 32% annual growth rate between 2010-2012.
- Forms (as of end 2012) [?]:
  - Entrusted loans: 32%
  - Informal lending: 17%
  - **Trust loans: 15%**
  - **Wealth management products: 14%**
  - Credit by financial guaranty companies: 11%

Source: Moody's 2013 report

Drivers of Shadow Banking

- So what are the drivers of shadow banking in general?
  - GDP Growth
  - Banking sector size
  - Institutional investor size
  - Term spread
  - Capital stringency (e.g., regulatory arbitrage)
- Do they apply to China?

  - Source: Global Financial Stability Report (Oct. 2014)

Possible Drivers in China

- Strict banking regulations
  - **Deposit rate ceiling**
  - **Loan-to-Deposit Ratio**
  - Restrictions on official financing
  - Sectoral lending limits
- Excess liquidity
  - Low nominal interest rates
  - Excess cash in some successful corporations
  - Capital inflows from abroad
- Insufficient alternatives for investors
- Other drivers specific to China
  - Pressure for infrastructure and real estate development, especially through LGFVs

Framing for the Paper

- Paper tackles *one part* of the issue of (excessive?) credit growth and interbank rate volatility
  - Could usefully provide some backdrop—how do we think about excessive credit growth and what is the appropriate amount of interbank rate volatility?
- Not an insignificant part of credit, but now not the shadow banking causing commentators the most angst (e.g., entrusted loans, MMF)
  - Could link banks to entrusted loans via a reputational effect?

Technical Questions

- Story suggests big four banks want to maintain market share of deposits
  - If goal is market share why do they maximize profits as their objective function?
- Role of reserve requirements is (only) as liquidity management tool, what about monetary policy and sterilization?
  - Can model be reformulated to accommodate multiple goals/trade-offs?
  - What about macropru/financial stability goal?

Benefits to the paper

- Ability to alter the model and see what would happen *ex ante* could be very helpful
  - Now that the deposit rate is free and the L/D ratio is not constrained, how much credit growth would the model predict, keeping the non-competitive interbank market?
  - How much would volatility decline if the interbank market were an inner and outer fringe rather than a monopoly? (See Pritsker 2012)
  - How would the outcomes change if the banking sector was competitive?

Benefits for the policy debate

- Model can help us think about policy options
  - Should China maintain price-based liquidity tools (e.g., reserve requirements)
  - Should China rely on quantity constraints (e.g., lending limits, concentration limits)?
  - Should China restructure its banking system? Downsize or privatize state-owned banks?
  - Address TBTF issues of the large banks? If so, through what means?
  - Limit links between banks and nonbanks? (As FSB recommends)
  - Strengthen deposit insurance against run risk?

Conclusions

- China's shadow banking sector is the 5th largest globally and growing the fastest.
- China's banking structure affects its ability to intermediate credit. Perhaps sub-optimally?
- Paper takes one aspect and models the behaviors to help us understand a set of facts that, in turn, affect the financial transformation
- This type of work is important and should be continued.

Comments on: Liquidity Regulation and Unintended Financial Transformation in China

1st Research Workshop on China's Economy

Dr. Laura E. Kodres
International Monetary Fund

April 29, 2016

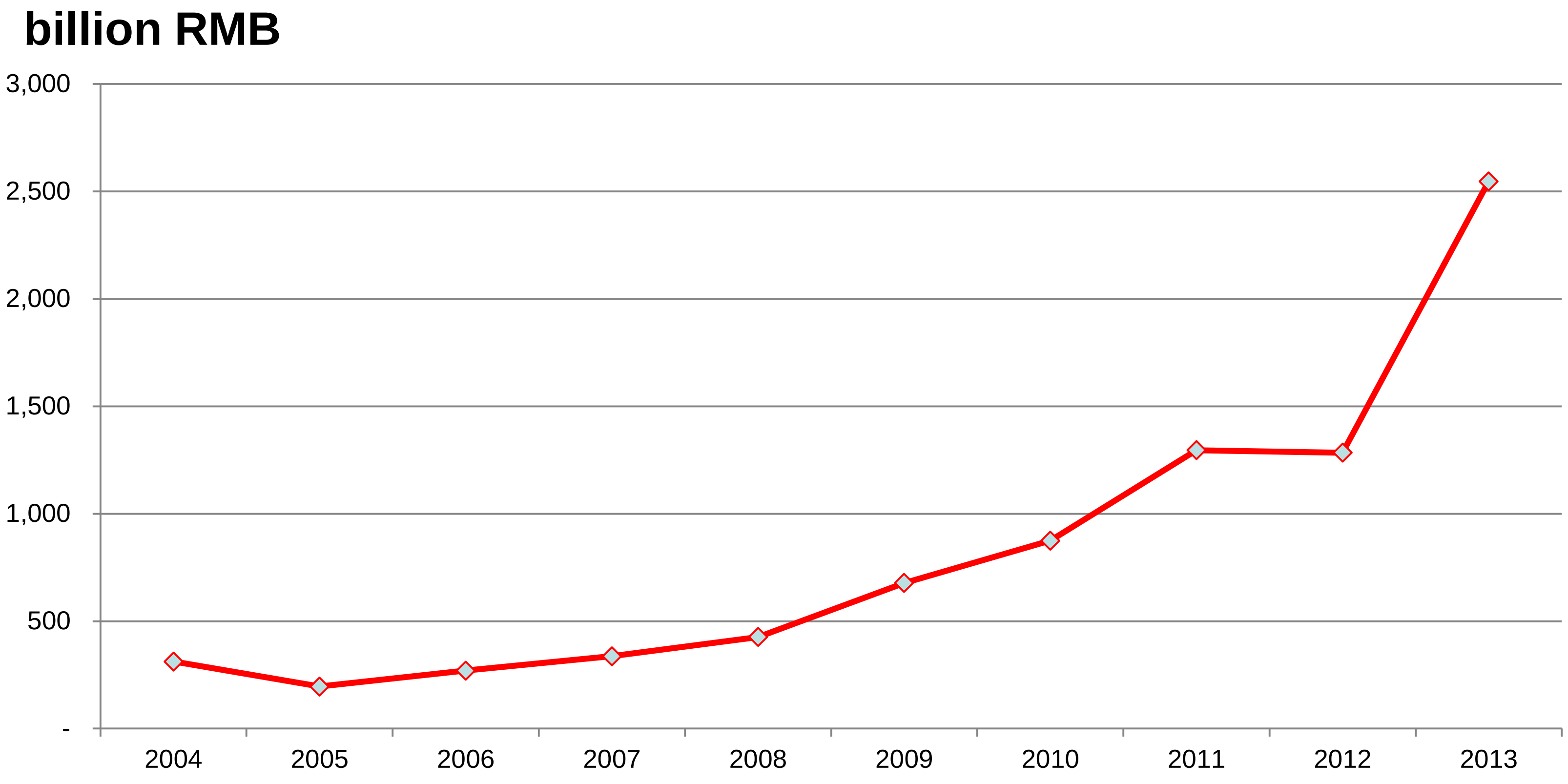
Extra Information

Entrusted Loans

- Entrusted loans are loans made by a non-bank party to another, using a bank as a servicing agent.
- The largest component of shadow banking activities in China.
  - PBC reports: 2,547B RMB in 2013, 15% of total financing.
- Lenders of non-affiliated loans pursue immediate profits, while firms use affiliated loans to support their affiliates.

Source: Allen, et. al., (2015)

Entrusted Loan Amounts



Source: PBC

Industry Distribution of Borrowers

- Top 5 borrowing industries of entrusted loans:
  - coal and mining (37.2% of total amount),
  - utilities (19.0%),
  - real estate and construction (14.4%),
  - auto and auto parts (6.7%),
  - transportation (4.6%).
- Largest net borrowing industry (borrowing minus lending):
  - real estate and construction (46.6 billion, 6.7% of total loan amount)
  - The industry accounts for 15% of GDP, 25% of fixed-asset investment, and 20% of bank loans.

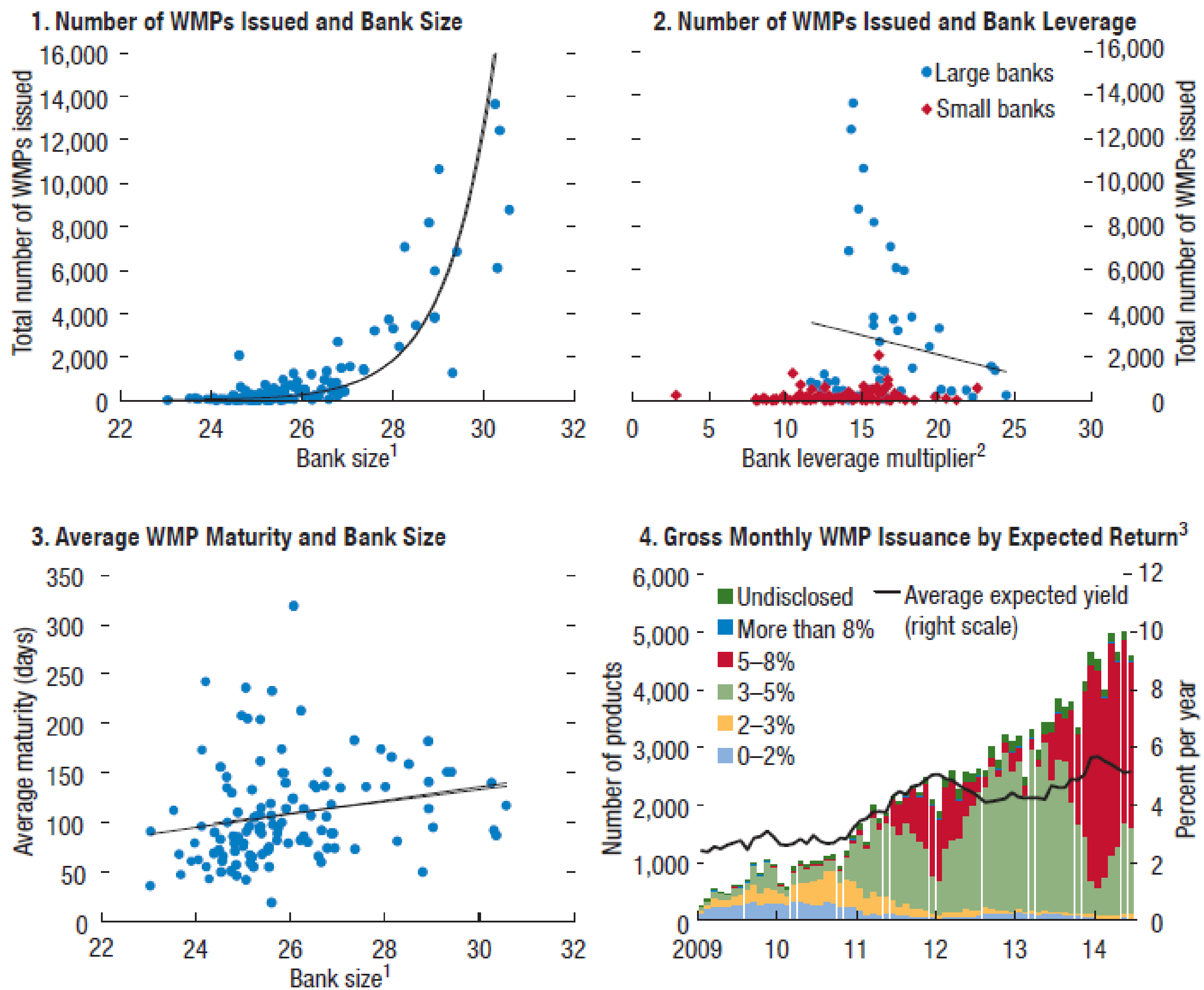
Source: Allen, et. al., (2015)

Industry Distribution of Borrowers

- A much larger percentage of money for non-affiliated loans flows into the real estate and construction industry.
  - Borrowing: 46% of the total amount of the non-affiliated loans
  - Net borrowing: 37% of the total amount of the non-affiliated loans

Source: Allen et. al., (2015)

China: Wealth Management Products



Risks of WMPs

- Risks to the banking system? LESS THAN AT FIRST GLANCE.
  - Until recently, large banks issued most WMPs (Panel 1); but the higher WMP issuance was associated with less bank leverage—more capital (Panel 2).
  - Larger banks have WMPs with longer maturities with less rollover risk (Panel 3).
  - Many WMPs have underlying loans to public sector companies with guarantees (Panel 4).
- Risks to investors? PERHAPS
  - More city, rural, and commercial bank issuance to (perhaps) less financially educated investors.

Risks of WMPs

- Mixed conclusions …
  - Perhaps less (actual) risk to large banks than originally thought.
  - But the *perception* of risk may still be present if a large failure occurs.
  - New issuers of WPMs may be the weaker banks.
  - Information and disclosure on risks to investors may still be poor.
  - If local government loans are in WPMs (being used to remove loans from banks balance sheets), and if local governments are highly indebted could be problematic.