Discussion of “The Varying Shadow of China’s Banking System”
by Xiaodong Zhu

Discussant: Hanming Fang
University of Pennsylvania
2017 Asia Economic Policy Conference

November 17, 2017
argues that shadow banking is not a new phenomenon in China

- There were significant shadow banking activities in China before 1994
- Existed since the 1980s as a way to get around lending restrictions imposed by the central government on banks.

Two types of shadow banking activities:

- initiated by the banks ⇒ efficiency enhancing
- initiated by the local governments or SOEs ⇒ misallocation of capital

Before 1996, the lending activities of non-banks seemed to help direct credit to the non-state sector; but the recent shadow banking activities have been dominated by local governments and SOEs. This contributed to the TFP loss.
What is “Shadow Banking”? 

- “Shadow”: Off-Balance-Sheet, less regulation
- Maturity transformation causes vulnerability to bank runs.
- China formally introduced deposit insurance in May 2015 for on-the-balance-sheet deposits up to RMB 0.5 Million, but subject to heavier regulation.
- Maturity transformation is a key feature of the shadow banking in the US; the run against the shadow banking is a proximate cause for the 2008 financial crisis.

Typically, the total amount deposited will be some amount less than the value of the asset used as collateral; the difference is called a “haircut.” For example, if an asset has a market value of $100 and a bank sells it for $80 with an agreement to repurchase it for $88, the repo rate is 10 percent \(= \frac{88-80}{80} \) and the haircut is 20 percent \(= \frac{100-80}{100} \). If the bank defaults on its promise to repurchase the asset, the investor keeps the collateral.

The step that moves this financing off the balance sheet of the bank is step 4, where loans are pooled and securitized. We will discuss this step in the context of the shadow banking system. Figure 2 illustrates the off-balance-sheet intermediation in the shadow banking system.

Figure 2. Off-Balance-Sheet Intermediation in the Shadow Banking System

- Retail investors
- MMMFs and other institutional investors
- SPV
- Bank
- Borrowers
- Shares
- Loans
- Securitized bonds
- Collateral (including securitized bonds)

- Step 1: Retail investors purchase shares and transfer funds to MMMFs.
- Step 2: MMMFs or other institutional investors use the funds as collateral to obtain loans from the bank.
- Step 3: The bank lends the funds to borrowers.
- Step 4: The loans are pooled and securitized, and the securitized bonds are sold to investors.
- Step 5: Investors purchase the securitized bonds and the process repeats.
Who Are the Investors in the Chinese Shadow Banking Products?

- Investors in shadow banking products are primarily:
  - domestic households;
  - corporate and financial institutions (corporate investors).

- Traditionally, household investment options were largely limited to bank deposits, equities, real estate, and foreign exchange: either very low return or very risky.

- “Shadow banking” products such as Wealth Management Products (WMPs), entrusted loans and trust loans offer a better risk/return combinations.
Who Are Borrowing?

- Local government financing vehicles; and
- Firms who have difficulty accessing traditional bank loans, due to government regulations on the banks (loan quota, or negative policy guidance):
  - Coal miners, ship builders, real estate developers, and firms in industries that are deemed with overcapacity.
  - Presumably also private firms that have difficulty obtaining bank loans.
How?

- An important channel through which investors pool money is WMPs, as shown by strong funds flows into them.
- The key is that WMPs have much longer average maturity than MMMF (which is on demand) or overnight repos (overnight). More below.
- They are devised with superior appeal for many investors compared to traditional investments.
- Compared with bank deposits, shadow banking products associated with the banks and trusts had much more attractive yields while being seen as essentially equally safe by many savers.
- The other higher return investment options, primarily equities, real estate, and foreign currencies, carried substantial risk.
- As Xiaodong pointed out, Banks, trust companies, Urban Credit Cooperatives (UCC), RCC, etc. use trust loans, entrusted loans and banker acceptance as the major tools to facilitate the regulatory arbitrage.
### Panel B: Summary Statistics of WMPs

<table>
<thead>
<tr>
<th>Variables</th>
<th>Big 5 Banks</th>
<th>Small and Medium-size Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuance (Billion RMB)</td>
<td>Max 4250</td>
<td>Min 1.00</td>
</tr>
<tr>
<td></td>
<td>Mean 1050</td>
<td>Mean 1.55</td>
</tr>
<tr>
<td>Issuance/Equity</td>
<td>Max 9.17</td>
<td>Min 0.00</td>
</tr>
<tr>
<td></td>
<td>Mean 1.60</td>
<td>Mean 1.37</td>
</tr>
<tr>
<td>Principal-guaranteed (WMP annualized expected return)</td>
<td>Max 7.00</td>
<td>Min 0.36</td>
</tr>
<tr>
<td></td>
<td>Mean 4.48</td>
<td>Mean 4.75</td>
</tr>
<tr>
<td>Principal-nonguaranteed (WMP expected return)</td>
<td>Max 7.00</td>
<td>Min 0.80</td>
</tr>
<tr>
<td></td>
<td>Mean 4.21</td>
<td>Mean 4.60</td>
</tr>
<tr>
<td>Maturity (days)</td>
<td>Max 2920</td>
<td>Min 1</td>
</tr>
<tr>
<td></td>
<td>Mean 108.96</td>
<td>Mean 115.07</td>
</tr>
<tr>
<td></td>
<td>Median 76</td>
<td>Median 88</td>
</tr>
</tbody>
</table>

**Figure:** Maturity of WMPs in China.
“Shadow Banking, Chinese Style” or “Alternative Financing”?

- **Common:** Off-balance financial intermediation, regulatory arbitrage
- **Difference in maturity transformation:**
  - **China:** maturity transformation is of a much less degree than the **US**; we do not yet have complete picture about the nature of collateral for the WMPs.
  - **US:** investors in the Money Market Mutual Funds (MMMF), or institutional investors in Overnight repo market. Very short term - Day, synchronized by default.

- Not knowing the nature of collateral in WMP or Trust products, it is hard to know the extent of the maturity of mismatch and thus the rollover risks; but **Maturity dates are not likely to be synchronized.**

- This distinction matters for assessing the systemic risk coming from shadow banking.

- Could “Chinese Shadow Banking” just be alternative financing, if there is stronger maturity match between funding source and investment?
What is to Blame for Capital Misallocation: “Shadow Banking” or Inefficient Regulations/Soft Budget Constraints?

- Xiaodong makes the distinction of whether the shadow banking activities were initiated by the banks or by the local governments or SOEs.
- I am not sure about the meaning of “initiated”.
- Local governments or SOEs (especially the SOEs that have over-capacity) are borrowers; banks are one of the intermediating financial institutions.
- So a Shadow banking activity can be connected to a bank and local governments/SOE at the same time!
- Chen, He and Liu (2017): LGIV borrowing increased dramatically as a response to rollover the loans from the RMB 4 Trillion stimulus. Misallocation is due to the stimulus, not due to the subsequent refinancing via LGIV.
An Alternative Interpretation of Chinese Shadow Banking?

- Shadow banking often comes with a negative connotation. It implies “risky”, and “unsound.”
- Remarkably, so far wealth management products, or trust products, have rarely failed.
- Is it pure luck? Is it because of implicit government guarantee?
- Or is it because the banks and non-bank financial institutions are in fact providing an important screening role for the quality of projects?
- Even if the funds are going to sectors that generally have overcapacity, the banks and non-bank financial institutions that lend in these sectors can still play an important screening role in deciding which of the firms in these sectors get off-balance-sheet loans.
- Most of the major players, banks or trust companies, are majority owned by the government. The careers of CEOs of these institutions are under the control of the government. Less susceptible to short-termism, but more subject to political pressure.
- We need more research to understand the real effects of Chinese “shadow banking.”
Examples of Borrowers: Real Estate Sector

- For example, the real estate sector was struck at the beginning of 2010 by a new round of macro-controls including home-buying restrictions, designed to counter the rapid increase in Chinese housing prices from the second half of 2009 to the first half of 2010.
- After bank lending to the real estate industry peaked at RMB 2.05 trillion in 2009 and RMB 2.09 trillion in 2010, it shrank to only RMB 1.32 trillion and RMB 1.37 trillion in 2011 and 2012.
- The tightening of bank lending placed enormous financial pressure on developers, thus spurring the industry’s strong demand for external financing which has been an important driving force behind the rapid growth of shadow banking since 2010.
Examples of Borrowers: Local Government

- Similarly, in 2009, at the beginning of the credit boom, infrastructure investment led by local government investment platforms played a particularly significant role in the surge of investment in China.
- Some LGIV struggled with issues such as overstated equity capital, unduly high leverage, and poor financial management, as well as extremely low rates of return.
- The State Council issued Article 19 in 2010 (“State Council’s notice on issues related to strengthening local government financing unit management”). The CBRC and the PBOC began to restrict commercial bank loans to local government financing units.
- In October 2014, the State Council issued Document 43, which limited the ability of local and regional governments to support loans made to companies, apparently including local government financing vehicles. This caused many lenders to pull back from such loans.