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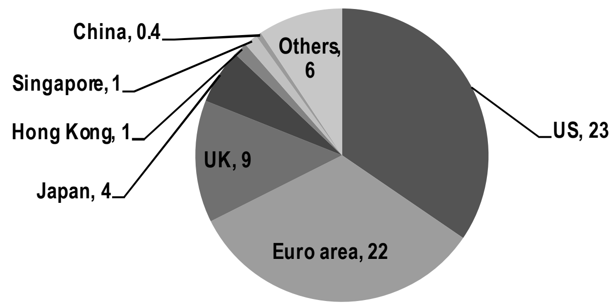
Economic Research Note

Shadow banking in China

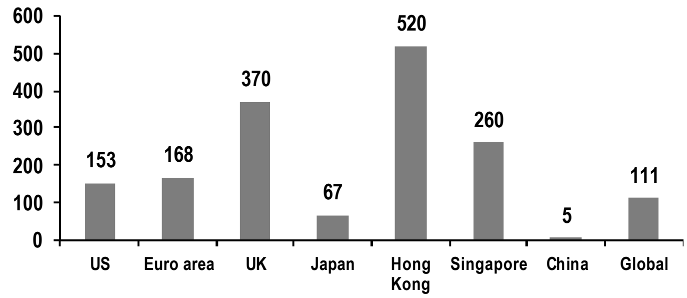
- **A broad definition of China's shadow banking totals 36 trillion yuan (69% of GDP)**
- **Shadow banking nearly doubled in 2010-12**
- **Trust and wealth management products are major sources of risk in China's shadow banking**

Global shadow banking (end of 2011)
US$ tn



Source: Financial Stability Board.

Shadow banking by country
% share of GDP, 2011



Source: Financial Stability Board.

Shadow banking has become an area of some concern within the international regulatory community in recent years. In November 2012, the Financial Stability Board (FSB) issued reports concerning strengthening the oversight and regulation of shadow banking. The FSB estimated that, in late 2011, shadow banking in G-20 economies totaled about $67 trillion, or about 111% of GDP.

More recently, there has been considerable discussion on the rapid growth of the shadow banking system in China, and as a consequence, the buildup of risks in China's financial sector. Nonetheless, the term "shadow banking" is at best vaguely defined in China. Based on different definitions, the estimated size of shadow banking in China has varied between 2-3 trillion yuan (in the FSB report) and about 30 trillion yuan.

FSB definition of shadow banking

A broad definition of shadow banking by the FSB is "credit intermediation involving entities and activities outside the regulated banking system." For policy purposes, the FSB also suggests a narrow definition of shadow banking as a "subset of non-bank credit intermediation where there are (i) developments that increase systemic risk (in particular maturity/liquidity transformation, imperfect credit risk transfer, and/or leverage), and/or (ii) indications of regulatory arbitrage that is undermining the benefits of financial regulation."

The FSB reported that assets in the global shadow banking system by this broad definition totaled $67 trillion in 2011, or about 111% of GDP. By country, the US has the largest shadow banking system ($23 trillion), followed by the Euro area ($22 trillion), the UK ($9 trillion), and Japan ($4 trillion). By entity, global shadow banking includes structured finance vehicles (10%), broker-dealers, finance companies, financial holding companies, and money market funds (about 7% for each).

Shadow banking is different from the non-bank financial sector. For instance, the vast majority of hedge funds are not shadow banks, as they do not involve credit intermediation or trade in the credit markets. Shadow banking typically also does not include corporate bond financing except via investment of non-bank financial institutions (see speech by Paul Tucker at the European Commission High Level Conference, April 27, 2012). On the other hand, shadow banking could involve multiple entities forming a chain of credit intermediation, including banks through off-balance sheet activity.

Furthermore, shadow banking is a neutral concept and is not equal to unregulated non-bank credit intermediation. Shadow banking can be good, by providing market participants and firms with an alternative source of funding and liquidity, and can spur competition in the allocation of credit in the economy. Of course, shadow banking can become a source of systemic risk, on its own or through its links with the regular banking system. But defining shadow banking and assessing the risks in the shadow banking system are two separate issues. In that sense, we think that the statement by the China Banking Regulatory Commission (CBRC) that trust loans and wealth management products (WMPs) are subject to regulation in China and so, should not be counted as shadow banking, is off the mark.

Shadow banking in China: a broad definition

How big is China's shadow banking system? In the FSB report it was estimated at only $0.4 trillion in 2011. This number was reported by the CBRC and it refers to "unregulated"

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credit intermediation outside the banking system, namely underground lending in China. As pointed out above, we think this is not consistent with the FSB's working definition.

If we start from the broad definition of shadow banking by the FSB, i.e., non-bank credit intermediation, China's shadow banking can consist of the following components:

Trust. A trust company invests client funds according to a pre-specified objective, purpose, amount, maturity, and interest rate. The funds can be invested as loans or in financial assets. Assets under management (AUM) of trust companies rose rapidly in the past two to three years, from 3.04 trillion yuan by end-2010 to 7.47 trillion yuan by end-2012, of which about 41% was trust loans.

Entrust loans are similar to trust loans except that the fund usage is specified by the trustor. Based on our estimates, entrust loans in China increased from 1.6 trillion yuan in 2008 to 5.75 trillion yuan in 2012.

Bank acceptances are short-term debt instruments issued by a firm that is guaranteed by a commercial bank, typically as part of a commercial transaction. It can be traded at a discount from face value in the secondary market. It is off banks' balance sheets and is similar to a loan commitment. We estimate the total amount of bank acceptance outstanding was 5.9 trillion yuan by end-2012.

Wealth management products (WMPs) emerged in China as a way to bypass regulation on maximum deposit rates. They are typically short term (86% of WMPs are less than six months in 2012) and marketed as high-yield alternatives to bank deposits. WMP investments include low-risk assets (such as bonds, interbank market products, interest rate products) as well as trust loans or other lending type of products. The size of WMPs rose from 1.7 trillion yuan in 2009 to 7.1 trillion yuan in 2012, about 7.7% of total deposits in the banking system.

Other financial institutions (OFIs) include finance companies, pawn shops, guarantors, small lenders, and financial leasing. As shown in the table, total assets of OFIs stood at about 6.3 trillion yuan by end-2012. In addition, the so-called bank-security cooperative business, a channel product used to bypass credit control in the banking system and to support lending activity, rose rapidly to about 1 trillion yuan by end-2012.

Underground lending is an informal lending activity in which individuals lend directly to each other, typically based on family relationships, friendships, or personal reputation. This is popular in a few provinces (e.g., Zhejiang and Inner Mongolia) as a funding channel for private entrepreneurs who do not have access to formal lending. Interest rates are typically much higher. Underground lending provides a useful source of working capital in normal cases, but could turn into a Ponzi game if investment fails (such as the "runaway bosses" in Wenzhou in 2011). Given that underground lending is a regional phenomenon, we estimate that the size of underground lending is between 2 and 3 trillion yuan in recent years.

Shadow banking in China
end-2012

	Size (bn yuan)	% of GDP	% of bank assets	*Memo: size in 2010*
1. Trust	7,471	14.4	5.6	3,040
2. WMP	7,100	13.7	5.3	2,800
Narrow definition (1+2)	*14,571*	28.1	10.9	*5,840*
3. Entrust loans	5,750	11.1	4.3	3,170
4. Bank acceptances	5,904	11.4	4.4	3,827
5. Security firms	1,000	1.9	0.7	0
6. Pawn shops	277	0.5	0.2	180
7. Guarantor	1,200	2.3	0.9	700
8. Small lenders	592	1.1	0.4	162
9. Finance companies	3,442	6.6	2.6	1,580
10. Financial leasing	770	1.5	0.6	316
11.Underground lending	2,500	4.8	1.9	2,500
Broad definition (1 to 11)	*36,006*	*69.3*	*26.9*	*18,275*

Source: PBOC; CBRC; China Trust Association; media reports

If we define shadow banking in a very broad sense by including all the above non-bank credit intermediation activities, the total size is about 36 trillion yuan by end-2012, or equivalently, about 69% of GDP or 27% of bank assets.

A few remarks are worth making here.

First, the concept of shadow banking as defined here covers almost all non-bank credit intermediation activity in China. This is broader than the working definition adopted by the FSB monitoring report. Given that financial systems differ across countries, and the entity and activity involved in non-bank financial intermediation also differs considerably, we should be cautious when making cross-country comparisons. For instance, in the FSB report Hong Kong has the largest shadow banking system (as a percentage of GDP), but this is mainly because of its role as a regional financial center, especially its effort to become a regional asset management center.

Second, the subcomponents in the shadow banking system are not additive. As they are categorized based on different entities and activities, they could represent the liability (e.g., WMPs) and asset (e.g., trust loans, entrust loans) sides of financial institutions; similarly, they could be different parts of the same credit chain (for instance, WMPs can be used to fund trust loans). Therefore, the estimated size of the shadow banking is a gross figure and does not quantify the net credit support from shadow banks to the real economy.

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Third, even using the broad definition, the size of shadow banking in China is still relatively small (relative to the size of the economy and the banking system). However, the rapid growth in shadow banking is worthy of attention. Based on our estimates, shadow banking in China (using the broad definition) was about 18.3 trillion yuan in 2010, or equivalently 46% of GDP or 19% of bank assets. In other words, the market has almost doubled (increasing by 97%) in the past two years. From a financial stability perspective, it is the rapid growth in shadow banking (instead of the size) that could generate systemic risk.

Fourth, not all non-bank credit intermediation will necessarily generate systemic risk. At this moment, the concern about potential risks arising from shadow banking is mainly related to trust loans and wealth management products.

Shadow banking in China: a narrow definition

If we narrow our focus to non-bank credit intermediation that likely causes concerns of systemic risk, as the FSB has recommended in practice, the most relevant activities are trust funds and wealth management products (WMPs). By end-2012, the total size of these two markets was about 14.6 trillion yuan, or equivalently, about 28% of GDP or 11% of bank assets.

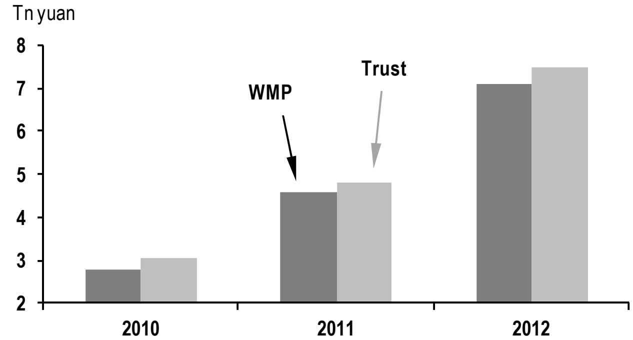
The two markets emerged in China as an effort to avoid controls on interest rates, with trust loans providing market-based lending rates and WMPs providing market-based deposit rates. The two markets grew separately initially, but in recent years have interacted with each other as some trust companies have used WMPs as a funding source. It is not clear how much overlap there is between the two markets, but from the usage perspective, 36% of WMPs are used as “credit-related,” which is likely to be project-related investment and could be connected to trust loans (43% of total trust fund usage).

Financial stability concerns on shadow banking in China

The risk concerns in China’s shadow banking sector, however, are different from those discussed globally. In advanced economies, the discussion on shadow banking regulation has focused on money market funds, repos, and secured lending and securitization. In these markets, maturity mismatch, leverage, and complexity of financial products are typically the major concerns. In China, at least complexity in financial products and leverage are not the imminent concerns.

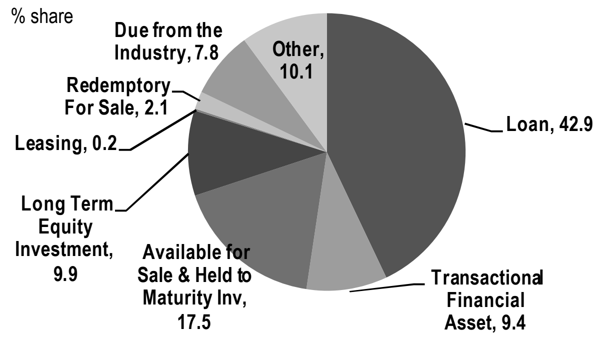
Instead, the potential risks related to shadow banking in China, especially trust loans and WMPs, can be categorized into four types: default risk, liquidity risk, legal risk, and regulatory risk.

China: trust AUM and WMP



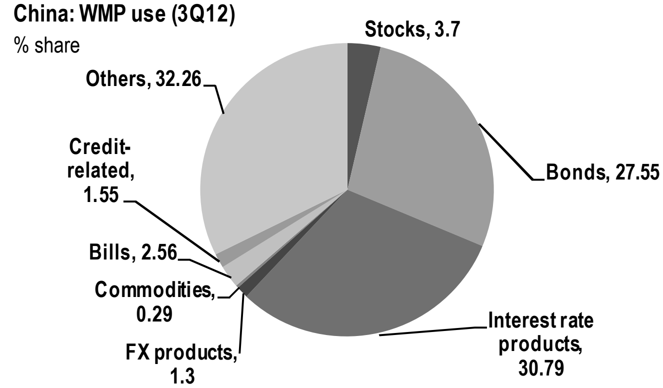
Source: WIND

China: trust fund use (2012)



Source: WIND.

China: WMP use (3Q12)



Source: WIND

Default risk is related to the fact that shadow banking in China is an important support for project-related investment. Borrowers such as local governments, real estate developers, and small enterprises typically have no (or limited) access to the banking sector. It is unclear how efficient lenders are in risk management, but at least in WMPs there are legitimate reasons for raising the concerns. For one, default is rare, implying that lenders could become complacent in making investment decisions. Also, it has become more common that WMPs are not guaranteed (i.e., investors bear the losses in case of failure of interest or principal repayments), therefore banks and trust companies may lose the incentive to monitor the credit quality of the underlying projects (fee income is profitable). This is similar to the moral hazard problem we observed in the securitized loan markets prior to the 2007-08 global financial crisis.

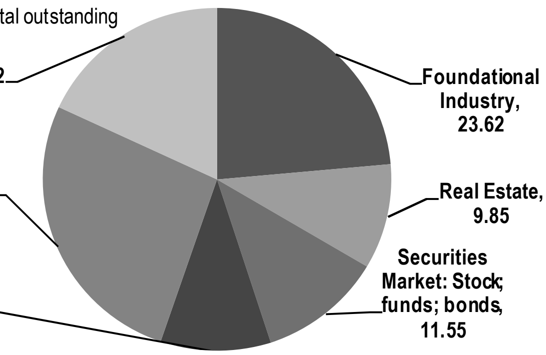
The liquidity risk arises due to maturity mismatch, as short-term funds are used to support medium- or long-term projects. This is not surprising given that shadow banking emerged in China as an alternative to the banking sector, and by nature will have a similar maturity transformation function to banks. Compared to banks, shadow banks have the advantage of being more flexible in setting interest rates, in part because they are not subject to the same degree of regulation (e.g., capital adequacy, liquidity buffer, or provisioning requirements). But this means shadow banks have smaller liquidity buffers than banks and may not receive liquidity support from the central bank in a crisis situation. The government needs to balance the benefit against the costs of shadow banks. In our view, if liberalization of interest rates brings with it increased vulnerability to liquidity problems (not a credit crisis), the benefit is worthy of the cost. At the end, the central bank has the ability to stop a liquidity crisis even if it occurs.

The legal risk is related to the moral hazard problem as mentioned above. In particular, many WMPs are not guaranteed, and average rate of return is only about 100bp above that of bank deposits. Most retail investors expect implicit protection from the government or banks even if the underlying project defaults. The divergence between investors' and banks' expectations regarding this implicit guarantee has not been officially tested in practice. But eventually, this issue needs to be clarified and the market may experience a setback either because investors will feel that they are not compensated sufficiently for this risk (if there is no implicit guarantee) or because banks may face higher regulatory burden (if banks have the responsibility to protect investors, these items will likely be brought back on to banks' balance sheets).

The attitude of regulators toward shadow banking has changed over time, thus also bringing regulatory risk to shadow banking in China. In late March, the CBRC issued guidelines tightening regulation on non-standard credit products (those credit products not traded on exchanges) by WMPs. More recently, the CBRC stepped up its monitoring effort on interbank exposures. Overall, we believe that the Chinese authorities will continue to be supportive of the development of shadow banking, but will selectively tighten regulation on certain business activities. Shadow banking will likely continue grow, but at a slower pace.

Trust fund by investment type (end of 2012)

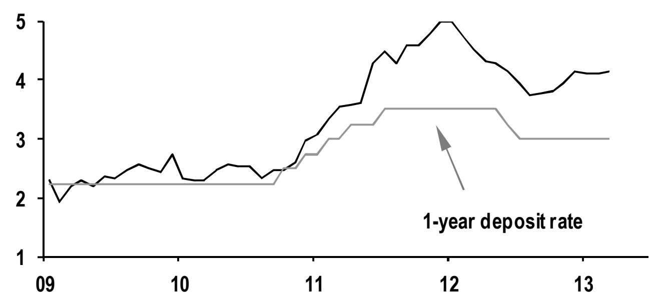
% share of total outstanding



Source: CEIC.

Banks' WMP weighted average rate of return

%



Source: WIND.

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