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THE CHANGING FACE OF SHADOW BANKING IN CHINA

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The growth of China's nonbank financial institutions, which engage heavily in shadow banking[1], has been extraordinary over the past decade. During this period, China's shadow banking system not only engaged in aggressive regulatory arbitrage but also started to embrace financial innovations and capital market financing against the backdrop of broad financial reforms. Its emergence and transformation are intertwined with a substantial increase in depth and complexity of China's financial system, which post new regulatory challenges. The growing importance of shadow banking in China makes a renewed in-depth look into its scale, structure, and risks both interesting and necessary. This *Asia Focus* report explores the drivers behind shadow banking system's growth in China, reviews the changing pattern of shadow banking activities, analyzes associated risks in the context of China's growing capital markets, and discusses future regulatory challenges.

1. Background on Shadow Banking in China

1.1. Definition of Shadow Banking

Shadow banking has always been a widely used but loosely defined term. Depending on the context, the term "shadow banking" can refer to entities, activities, or products. The Financial Stability Board (FSB) broadly describes shadow banking as "credit intermediation involving entities and activities outside of the regular banking system," but also offers a relatively narrow definition of "non-bank credit intermediation where shadow banking risks such as maturity transformation, liquidity transformation or leverage may occur," which is more relevant to banking regulation.[2] Nonbanks are major players in shadow banking activities, although certain off-balance sheet activities by banks also fit the broad definition of shadow banking.

Chinese authorities have used different approaches for defining the scope of shadow banking activities under various circumstances. In a document circulated in late 2013, the State Council offered a description similar to the FSB's broad definition.[3] In its 2013 *Financial Stability Report*, the People's Bank of China (PBoC) defined the shadow banking system as credit intermediation involving entities and activities outside the regular banking system that serves to provide liquidity and credit transformation and which could potentially be a source of systemic risk or regulatory arbitrage.[4] In contrast, a recent China Banking Regulatory Commission (CBRC) working paper presented a different view which focuses on regulatory arbitrage and systemic risks, and does not include traditional trust business, finance companies, and financial leasing companies in the scope of shadow banking.[5] Private sector analysts' views also vary widely. Over time, the discrepancies between definitions appear to be widening as shadow banking activities evolve in structure and complexity.

1.2. Size and Growth of Shadow Banking in China

The lack of a consensus in defining shadow banking in China has resulted in different estimations of its size. Recent studies of China's shadow banking system suggest solid and continuous growth (*Table 1*). However, estimates of its size relative to GDP in 2014 range widely from 26 percent to 72 percent, compared to FSB estimates of 82 percent in the United States and 128 percent in the Euro area.[6] Most studies of China's shadow banking system use a bottom-up approach and focus on nonbanks' (especially trust companies') credit extension to the real economy, which represents the asset side of shadow banking activities, and the issuance of wealth management products (WMPs),[7] which captures the liability side.

Table 1: Select size estimates of China's shadow banking system

Source	As of date	RMB trillions	US$ trillions[8]	% of GDP	Methodology
Oliver Wyman (2015)[9]	2012 2013	23.0 31.2	3.69 5.03	43% 53%	"Risk" view (sources of funds include shadow deposits, corporate funds, private funds, leasing companies, and guarantee companies).
Fung Global Institute (2016)[10]	2012 2013 2014	22.5 30.1 32.2	3.61 4.97 5.19	42% 51% 50%	Credit assets of trust companies, financial leasing, financial guarantee, pawnshops, microcredit companies, peer-to-peer (P2P) lending platforms, entrusted loans, trust loans, undiscounted bankers' acceptance, off-balance sheet banks' WMPs, securities companies asset management plans, and private lending.
FSB (2015)	2010 2011 2012 2013 2014	3.4 5.3 8.3 12.0 17.1	0.51 0.84 1.34 1.99 2.75	9% 11% 16% 21% 26%	Nonbanks financial institutions that are involved in credit intermediation.
UBS (2016)[11]	2013 2014 2015	39 46 54	6.44 7.41 8.32	66% 72% 79%	Adjusted Total Social Financing (including corporate bonds, trust loans, entrusted loans, and undiscounted bills) and structured non-standard products such Trust Beneficiary Rights (TBRs) or Directional Asset Management Plans (DAMPs).

Source: Author's calculation based on various studies and the International Monetary Fund data.

1.3. Rapid growth of shadow credit extension due to regulatory arbitrage

The rapid growth of China's shadow banking after the global financial crisis, which has been well documented by academic studies and private sector analysts' reports, was driven by regulatory arbitrage amid a tightly regulated banking environment. Chinese banks are subject to a myriad of prudential requirements imposed by regulators. Some of these requirements are quantitative, such as the loan-to-deposit ratio ceiling of 75 percent that bank regulators had strictly enforced until 2015. Some are qualitative, such as the supervisory restrictions to curb bank credit extension to high risk and overcapacity industries as part of China's ongoing structural reform efforts. Authorities put these measures in place to control liquidity and credit risks within the banking sector. However, nonbanks are not subject to the same requirements, leading to regulatory arbitrage opportunities.[12] Restrictions on bank deposit and lending rates before 2015 were another key factor behind the rapid growth of shadow banking. To circumvent interest rate controls, banks developed a heavy reliance on the issuance of wealth management products, which were essentially an alternative to bank term deposits that offered market-determined returns. This led to sharp increases in funds flowing into the shadow banking system.

Since 2013, authorities have responded to these developments by imposing various restrictions on specific shadow banking activities, but new forms of shadow banking continued to emerge despite regulatory efforts. In addition to trust companies, other nonbanks such as brokerage firms, leasing companies and financial guarantors also have accumulated substantial exposure to shadow banking risks.

2. Evolving Structure of Shadow Banking in China

Until recently, China's shadow banking system mainly included direct credit extension by nonbank financial institutions (such as trust companies) and informal securitization through the pooling of proceeds from wealth management products. But the structure of shadow banking is constantly evolving as financial reforms close regulatory arbitrage loopholes and capital markets grow in depth and sophistication. Compared with 2013 when shadow banking risks first became a regulatory focus, China's shadow banks now play a reduced role in direct support to the real economy. However, the size of the shadow banking system continues to expand and its complexity has increased remarkably.

2.1. Reduced Role in Direct Support to China's Real Economy

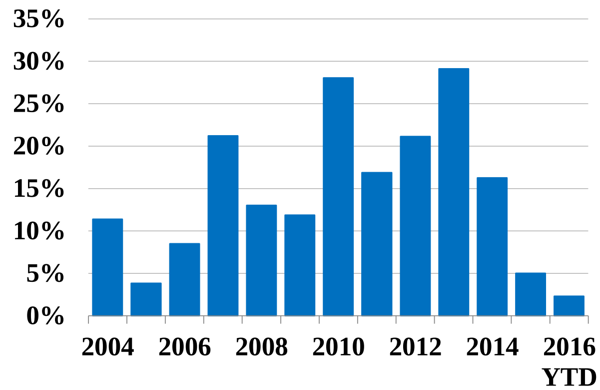
In the past, shadow banking has helped improve access to credit to China's underserved private sector. Sheng at al. (2015)[13], for example, pointed out that China's formal banking sector does not provide sufficient credit to the small and medium enterprise (SME) and retail sectors, creating a vacuum that fosters shadow banking activities. Similarly, Elliott and Qiao (2015)[14] argued that the societal benefits associated with China's shadow banking sector appear to outweigh the risks since they benefit small and private firms which are disadvantaged by the formal banking sector. However, data suggest that shadow banking's contribution to China's real economy appears to be on the decline in recent years as a result of regulatory changes.

A proxy often used as a gauge of shadow banking activity's direct support for the real economy is "Total Social Financing" (TSF), an indicator published monthly by the PBoC that assesses the real sector's funding sources, including bank loans, nonbank credit, bond issuance, and equity issuance.[15] Its nonbank credit portion—the sum of trust loans, entrusted loans, and bankers' acceptance bills—serves as a good, albeit imperfect, proxy of shadow credit to the real economy. According to this proxy, shadow credit activities reached its peak in 2013, accounting for nearly 30 percent of funds raised by nonfinancial corporates during that year. However, its relative importance has declined since then to less than 5 percent of newly raised funds in the first 11 months of 2016 (*Figure 1*).[16] This mirrors a growing share of capital market financing—net bond issuance and stock issuance—in TSF from 12 percent in 2010 to nearly 30 percent in 2016, as well as investment receivables which are not part of banks' loan books.

Similar trends can be observed in the recent growth of trust companies' assets under management (AUM). Trust companies are nonbanks that extend credit to the real economy (mainly nonfinancial corporates), which many view as a textbook case of conducting credit intermediation, maturity transformation, and liquidity transformation outside the banking sector safety net in China. As of June 2016, trust company AUM grew by 9 percent year-over-year, compared to an annualized 50 percent between 2010 and 2013

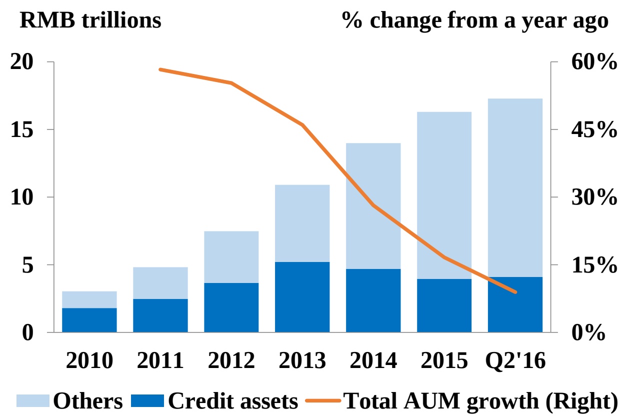
(*Figure 2*). Furthermore, the share of trust assets directly invested in the real economy has declined over time from roughly 60 percent in 2010 to 22 percent in Q3 2016.

Figure 1: Shadow banking's share in new funds raised by the real economy



Source: Author's estimate based on PBoC data. Latest data point is November 2016.

Figure 2: Trust company AUM by type of investment



Source: Author's calculation based on China Trustee Association data.

Shadow banking's reduced role in providing direct funding to the real economy is largely due to recent changes in regulatory policy. After 2013, regulators undertook efforts to improve data collection and adopted a series of measures that aim to bring some shadow banking activities back on banks' balance sheets (*Table 2*). A more liberalized operating environment for banks also helps remove the incentive to engage in regulatory arbitrage. In 2015, the CBRC changed the loan-to-deposit ratio from a regulatory requirement to an observed indicator, thereby nominally eliminating the incentive for banks to disguise loans as investments or off-balance sheet obligations. The complete deregulation of lending and deposits interest rates that took place in late 2015 will likely further reduce incentive for banks to collaborate with shadow banks to circumvent interest rate controls in the future. In December 2016, the PBoC announced that it will start to include off-balance sheet WMPs into its risk assessment framework in 2017, which means banks will likely need to set aside capital for such activities.

Table 2: Summary of recent shadow banking regulations

- March 2013: CBRC "Notices on rectifying operation of banks' WMP business" (Document #8)
- December 2013: The State Council "Notice on Issues of Tightening Regulations on Shadow Banking" (Document #107)
- April 2014: CBRC "Guidelines on risk supervision of the trust sector" (Document #99)
- May 2014: CBRC "Notices on rectifying interbank business of financial institutions" (#Document 127)
- May 2014: CBRC "Notices on rectifying management of commercial banks' interbank business" (Document #140)
- May 2016: CBRC "Notices on rectifying banking institutions' transferring of trust beneficiary rights" (Document #82)
- August 2016: CBRC "Supervision and regulation of commercial banks' WMP business" (Under consultation)
- December 2016: PBoC announced that starting in 2017, off-balance sheet WMPs count towards broad credit in its Macroprudential Assessment (MPA) framework.

Sources: Sheng et al. (2015), Reuters, Bloomberg, the CBRC, and the PBoC.

2.2. Wealth Management Products Continue to Grow

Despite the declining importance of shadow loans for the real economy, the size of wealth management products (WMPs)—a major source of funding for China's shadow banking system—continues to grow at an extraordinary pace. Bank-issued WMPs grew by a whopping 80 percent from end-2014 to a total of RMB 27.1 trillion in Q3 2016, equivalent to one fifth of bank deposits. A portion of WMPs are invested directly in loans, an activity that fits firmly within the definition of shadow banking. Banks are also directing a growing share of WMP proceeds into capital market securities including stocks, bonds, and money market instruments, that involves limited credit and maturity transformation but indirectly funds credit extension, adds more layers to the credit intermediation chain, and highlights the shadow banking sector's growing interconnectedness within the rest of the financial system.

Together with investment receivables, WMPs fueled the rapid expansion of China's asset management industry. As of mid-2016, total assets managed by trust companies, securities firms, public and private investment funds, and insurance companies stood at RMB 15.3 trillion, RMB 14.8 trillion, RMB 14 trillion, and RMB 2 trillion, respectively, according to one estimate by the China Securities Regulatory Commission (CSRC).[17] Accurately assessing the size of total balance of funds managed by nonbanks at any certain time point is difficult, because most investment products have short tenors. Moreover, their proceeds may be invested in similar products offered by other nonbanks, which can lead to issues of double-counting. The CSRC puts the total size of asset management industry at roughly RMB 60 trillion as of mid-2016, close to the size of China's GDP in 2015.[18] The industry contributes to the growth of the shadow banking system when nonbanks channel bank funds to invest in the real economy, as is often the case for trust companies and securities firms.

2.3. Shadow Banking Increases in Complexity

Compared to the U.S. shadow banking system, where money market mutual funds, asset-backed commercial paper conduits, securitization, and government-sponsored enterprises play central roles,[19] China's shadow banking system is still relatively simple in structure. But more risky structured products have emerged over the past couple of years.

One example is trust beneficiary rights (TBRs). In a typical TBR arrangement, a bank transfers part of its loan book to a trust company, but buys back the right to receive the income stream from the loan, and retains all credit risks by serving as a guarantor. TBRs are essentially shadow loans, but banks record them as investment receivables to circumvent regulatory requirements. TBRs now have a growing secondary market. In some cases, trust companies repackage TBRs into different tranches, effectively securitizing these products. A similar product, called a Directional Asset Management Plan (DAMP), is also popular among banks as a method to extend shadow loans via securities firms.

Going forward, more profound changes are on the way. As of end-2015, China's money market mutual funds (MMMFs) had RMB 4.4 trillion under management, more than ten times the amount three years ago.[20] Daily trading volume of the interbank repo market grew to RMB 1.8 trillion in 2015, nearly tripling in size from 2013.[21] Asset backed securitization now stands at RMB 770 billion, up from 59 billion in 2013. New types of investment conduits and structured products can potentially gain a much larger role in credit intermediation outside the banking system, which means China's shadow banking system will become even bigger and more complex and calls for a more comprehensive regulatory framework for better monitoring of system-wide risks.

3. Regulatory Responses

3.1. Current Regulatory Approach

The current regulatory approach focuses on reining in rampant regulatory arbitrage activities and has attempted to build a firewall between commercial banks and shadow banks. Importantly, authorities have adopted various measures to curb trust companies' and securities firms' so-called "channel business," which is essentially a form of collaboration with banks to disguise bank loans as interbank or off-balance sheet liabilities in order to circumvent existing regulations. In recent years, regulators have also been cautious about securities firms and peer-to-peer (P2P) lending platforms providing investment guarantees or investment advice, since such services bear a credit enhancement feature that is a key function of shadow banking.

Most recently, leverage has become another major concern. The use of leverage embedded in shadow banking products amplifies risks and can have systemic implications. This is well demonstrated by the 2015 stock market boom, when nonbanks such as trust companies and securities firms engaged in aggressive leverage lending that drove equity prices further up in an already overheated market. In the aftermath of the stock market crash, various government agencies imposed a number of new regulations that significantly tightened requirements on the use of leverage.[22] Another example is the quick development of the repurchase agreement (repo) market that facilitated the use of leverage by bank money managers to pursue higher investment returns as they reposted bonds as repo collaterals to borrow in the interbank market. The PBoC responded by tightening interbank liquidity in order to curb these risks.[23]

3.2. Regulatory Challenges in the Future

Going forward, regulatory challenges will evolve along with the changing pattern of shadow banking. Financial interconnectedness and innovations are two major trends that will likely amplify shadow banking risks. As previously discussed, nonbanks, which account for most shadow banking activities, are increasingly contributing to the interconnectedness of China's financial system. According to PBoC data, bank claims on nonbanks have grown nearly 50 percent in the first 11 months of 2016 and are now roughly RMB 26 trillion. In 2016, nonbanks have replaced small banks as the largest group of interbank market borrowers, highlighting both nonbanks' increasing reliance on short-term wholesale funding and banks' exposure to nonbanks.[24] Such interconnectedness represents possible spillover of shadow banking risks to banks.

Moreover, nonbanks are inherently better positioned than banks to adopt new technologies and innovative business models to support the expansion of their customer base, making it possible for shadow banking activities to achieve viral growth. This has been demonstrated by the recent rise of internet-based money market mutual funds, such as Yu'E Bao (Alibaba's online money market fund), as well as the rapid growth of the online P2P lending industry. To the extent that technology can facilitate dramatic growth of shadow banking activities within a short period of time, the surveillance and assessment of risks associated with new business models can be challenging for regulators.

Given the evolving scope and complexity of shadow banks, some local economists have called for financial regulators to step up the monitoring of nonbanks, curb regulatory arbitrage, and require nonbanks to improve risk management.[25] According to a recent study[26], nine regulators have shared responsibilities for overseeing shadow banking in China, which highlights the importance of timely and effective coordination amongst them. China is not alone in facing this challenge. Elsewhere in the world, establishing a shadow banking policy framework is also a work in progress.[27]

4. Outlook

China is making gradual but steady progress in promoting financial market liberalization and openness. Meanwhile, China's financial system is set to experience profound changes as its capital markets grow in scale and sophistication against this backdrop. Going forward, the growth of China's shadow banking system will continue to be shaped by the deepening of capital markets, financial reforms, and financial innovations, presenting both risks and opportunities to market participants. The changing face of shadow banking in turn will introduce additional layers of complexity to China's financial system, which warrants continuous monitoring of this evolving landscape.

Endnotes

[1] As will be discussed later, shadow banking is a loosely defined term. As the Financial Stability Board points out, the use of the term "shadow banking" is "not intended to cast a pejorative tone on this system of credit intermediation," but rather to follow a commonly employed term in previous studies and policy dialogues. For the purpose of this report, the terms "nonbank financial institutions" and "nonbanks" will be used interchangeably. China's nonbanks heavily engage in shadow banking and account for the majority of shadow banking activities.

[2] Financial Stability Board: Global Shadow Banking Monitoring Report 2015, November 12, 2015.

[3] The State Council: "Notice on Issues of Tightening Regulations on Shadow Banking," Notice #107, December 2013.

[4] Elliott, Douglas, Arthur Kroeber and Yu Qiao: "Shadow Banking in China: A Primer," The Brookings Institution, March 2015.

[5] Wang, Zhaoxing: "Rethinking Shadow Banking and Its Supervision," *China Finance*, Vol. 7, 2015. (In Chinese.)

[6] The FSB's estimates for shadow banking in 2014 are based on activities (also referred to as "economic functions") for most countries, but for China the figure is based on the assets of nonbank financial institutions that are involved in credit intermediation. According to the FSB, Chinese authorities did not agree with the classification of including certain entity types as shadow banking. It is unclear if this leads to an overestimate or underestimate as compared to other jurisdictions.

[7] As will be described later, WMPs serve as a higher yielding alternative to bank deposits for households and some businesses. The term is also sometimes described as "shadow deposits."

[8] Conversions between renminbi and the U.S. dollar are based on period-end exchange rates. The exchange rate was 6.89 as of November 30, 2016.

[9] Sheng, Andrew et al.: "Bringing Light Upon the Shadow—A Review of the Chinese Shadow Banking Sector," Oliver Wyman, February 2015.

[10] Sheng, Andrew and Ng Chow Soon: *Shadow Banking in China: An Opportunity for Financial Reform*, John Wiley & Sons, July 2016.

[11] Wang, Tao et al. (2016): "China's 'Missing' Shadow Credit", UBS Global Research, June 28, 2016.

[12] For an in-depth discussion of China's shadow banking system, including trust companies, see Cindy Li: "Shadow Banking in China: Growing Scale, Revolving Structure," FRBSF *Asia Focus*, April 2013.

[13] Sheng et al (2015).

[14] Douglas J. Elliott and Yu Qiao: "Reforming Shadow Banking in China," The Brookings Institution, May 2015.

[15] The TSF is also known as "Aggregate Financing to the Real Economy" (AFRE). Real sector includes households and nonfinancial corporates.

[16] UBS economists (Wang et al., 2016) estimate that as of end-2015, banks held a total of RMB 16.5 trillion in off-balance sheet shadow loans in the forms of TBRs and DAMPs. It is unclear if the TSF statistics already account for part of such shadow credit. Simply adding UBS' estimates to the TSF, shadow banking's contribution to the funding of the real economy would peak in 2013 at around 50 percent, before declining sharply to less than 30 percent in 2015.

[17] http://www.csrc.gov.cn/pub/newsite/zjhxwfb/xwdd/201611/t20161118_306175.html (Accessed on December 20, 2016.)

[18] *Ibid.*

[19] Pozsar, Zoltan et al.: "Shadow Banking," Federal Reserve Bank of New York *Staff Report* No. 458, July 2010.

(Revised February 2012.)

[20] Fitch Ratings: "Chinese Money Funds See Institutional Demand Surge," July 2016.

[21] PBoC Monetary Policy Reports.

[22] For example, the CBRC's newly proposed WMP rules (August 2016) impose a maximum leverage ratio of 140 percent for bank issued WMPs. In July, CSRC published new rules on securities firms' asset management business and imposed a 1x restriction on leverage used by investment products that invest in stocks (previously 10x).

[23] http://www.reuters.com/article/china-debt-moneymarket-idUSL3N1BQ2GD (Accessed on December 20, 2016.)

[24] For more discussion, see http://www.frbsf.org/banking/asia-program/pacific-exchange-blog/china-money-market-growth/ (Accessed on December 20, 2016.)

[25] For example, after the 2015 stock market crash, various financial regulators hastily published a long list of new policies and regulations that are uncoordinated and caused market confusion.

[26] Sheng and Soon (2016).

[27] For shadow banking policy recommendations, see *An Overview of Policy Recommendations for Shadow Banking*, Financial Stability Board, August 29, 2013.