CHAPTER 1

Introduction

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Before the stock market turmoil of June–September 2015, China appeared relatively unscathed from the global financial crisis of 2007–8 (GFC). Supported by ample liquidity and credit growth, the Chinese economy continued to grow. RMB internationalization increased, with its growing acceptance as a global trade and payment transaction currency. Such advances have also faced new headwinds in the form of a slowing global growth and trade environment. The World Bank (2015) has downgraded its global economic projections and cautioned that the global outlook is clouded by weak commodity prices, divergent monetary policies across key economies, volatile financial markets and a decrease in world trade.

Of particular concern is the structural decline in world trade, which is becoming less responsive to changes in global income. The IMF (2015a) also lowered its global growth forecasts, noting that positive factors such as lower oil prices will be more than offset by persistent negative forces, including lower investment and slower potential growth in many countries. A key concern of the IMF (2015b) is the risk of a "new mediocre" – a prolonged period of low growth. As the Chinese economy adjusts to a new normal of slower growth, questions are being raised about the sustainability of the Chinese model and its dependence on ongoing credit "fuelling." Some commentators have suggested that China's "Lehman moment" is imminent and that the Chinese shadow banking sector could become the cause of the next systemic global financial crisis.

However, a GFC-type crisis is unlikely, given China's still favorable fundamentals and policy space. At this juncture, Chinese shadow banking is also relatively small by global standards and essentially a domestic debt problem without any direct global implications. Prompt policy action is, however, urgently needed to deal with potential shadow bank failures and preempt any escalation of contagion risks. The problem should not be underestimated, as the nexus of shadow banks, the formal banking system and inter-enterprise credit could be highly vulnerable to further slowdown and property price adjustments. While China's shadow banking risks are unlikely to trigger a worldwide systemic crisis, any further slowdown could affect market confidence and have indirect, contagion effects on foreign holdings of China's bonds and securities. Corporate loan defaults (which include foreign currency debt), such as the recent default of a Chinese property developer's bonds, suggested that a domestic problem can spill over to foreign banks and investors, as China becomes increasingly integrated with the global financial system. The fact that global financial markets reacted negatively to the announcement of a devaluation of 1.9 percent of the RMB in August 2015 indicated that global investors recognize the contagion risks of China's role in global growth, trade and investments. If not properly managed, a series of defaults by shadow banks or their clients can affect foreign banks and investors, as well as domestic confidence.

Furthermore, closer regulatory supervision is needed to tackle the moral hazard implications of shadow banking financialization, Ponzi and get-rich-quick schemes, and usurious lending that exploits the poor.

Overall, barring any sudden shocks, we envisage that China's shadow banking problem is still manageable, although the central government may need to step in to restructure some of the local government debts and return them to stability and productive growth. While most local government debt is manageable, since the local governments have a fairly high level of assets, local government finances need to be reformed through greater transparency, appropriate sharing of fiscal revenue between central and local government and also clarity of rules on issuance of local government debt. The other area of concern is the rapid growth in corporate leverage, particularly in inter-enterprise debt, which requires comprehensive financial reform to enhance private sector (especially SME) access to bank credit and equity finance.

There is much misunderstanding of the role of shadow banks in an economy, including in China. They are not stand-alone, high-risk entities that should be regulated out of existence. Historically, entities such as microcredit companies, money lenders and pawn shops, for example, form an intrinsic part of the financial system that integrates finance with the real economy, notably in providing access to credit to marginalized sectors that may not qualify for loans from the formal banking industry due to lack of credit history or collateral, onerous regulations, lending requirements and gaps and overlaps in regulatory coverage. Shadow banks do fulfill market needs for longer-term financing that is not provided by the formal banking sector, which is biased towards short-term lending as longer-term loans attract higher capital and other regulatory requirements. Unfortunately, some shadow banking activities involve Ponzi or get-rich-quick schemes, while others exploit SMEs and the poor by charging usurious interest rates, and these require closer supervision.

Since 2007, the Group of 20 (G-20) has tasked the Financial Stability Board (FSB) to focus on too-big-to-fail (TBTF) financial institutions and on shadow banks in order to curb the systemic and institutional risks that precipitated the GFC.

The FSB recognized that there were gaps in financial regulation in advanced economies (AEs) that underestimated the role of shadow banks in the run-up to the GFC. While the international experience in dealing with shadow banks offers a useful guide to China, there is no one-size-fits-all solution to regulate banks and shadow banks "on a global level playing field." In particular, China's approach to shadow banking will need to "fit" domestic conditions and address risks that are peculiar to China.

In August 2014, the FSB Regional Consultative Group for Asia took the view that not only is there no uniform definition of shadow banks in Asia, but also their non-bank financial institutions (NBFIs) do not present systemic risks like those in AEs and are subject to adequate regulation, based on country-specific circumstances.

In a globalized, complex and highly interconnected financial system, diversity is a source of strength and resilience. Shadow banks exploit information, regulatory, price and tax arbitrage opportunities that fall beyond the purview of national financial regulators. The result is a global network of financial institutions, interconnected through complex and sometimes toxic financial derivatives and highly leveraged products that are not transparent to investors, operators and regulators alike.

Similarly, at the national level, the segmentation (and therefore fragmentation) of supervision of different financial products and institutions results in regulatory gaps and overlaps that enable new and unregulated institutions to emerge to meet market needs that were underserved because of obsolete policies and regulatory processes.

This is true of moneylenders and microcredit providers as well as Internet finance platforms that provide financial services to market segments not served by the formal banking system.

Bringing shadow banks into the light by understanding their mode of operations, appreciating their systemic risks and putting them within the context of the whole ecosystem of real sector economic demand and supply of financial services would suggest that policy makers should look at the opportunity of inculcating the right environment for stable, efficient and inclusive growth between banks and NBFIs (notably e-finance) in supporting the real economy. This calls for a comprehensive policy approach that goes beyond the introduction of more regulations to control shadow banking risks.

The purpose of this book is to bring the explosive growth in China's shadow banking credit into the light and explore the potential implications for financial stability in China, and also for fundamental structural reforms in the Chinese financial sector that have key implications for the real economy.

The study takes a broader view of shadow banks to include Internet finance providers, identifying both groups not just as potential sources of chaos due to quick-profit and high-risk activities, but also as areas of profound change in the real economy that must be met by structural changes in the financial sector.

China is undergoing profound change, as the economy and society moves into middle income, urbanized consumption and production that is not only more broad-based, but also technologically driven, mobile Internet-friendly and more inclusive and ecologically green. The present financial system was designed to serve largely a state-owned production environment, based on investment and exports. The financial system needs to reform to meet China's changing needs as it rapidly shifts to a mass consumption-driven and market-led economy that is closely integrated with the world economy.

Just as the explosive growth in Internet finance and e-commerce reflects fundamental changes in Chinese supply chain production, distribution and consumption patterns, so do microfinance, moneylending and wealth management products reflect the growing complex, diverse and specialized needs of different segments of the Chinese market and society.

Of course, such explosive growth in new, opaque products gives rise to regulatory concerns of personal privacy, cybersecurity, usury, greed, moral hazard and system failure, which warrant prompt and careful management to curb the negative aspects of shadow banking and e-finance. But they are also opportunities to address the genuine needs of the real sector and to reform the present antiquated financial structure and processes.

This book argues that to understand Chinese shadow banks, we must understand the current financial system with Chinese characteristics and look into how a better system can be evolved, through rigorous and fundamental financial reforms.

This is because more regulation per se will not resolve China's shadow banking problem, given its complicated interlinkages and opaque bundling of risks with the formal banking system and the real sector. Indeed, there is much confusion on the measurement of shadow banking risks, which has been constrained by the problems of double counting (and underreporting) of assets as liabilities in wealth management products (WMPs).

A comprehensive assessment of the scale of risks of Chinese shadow banking must consider the quality of assets or net assets at risk (non-guaranteed assets). At the same time, the rapid growth in inter-enterprise credit (a characteristic quite unique to China in terms of its size and complexity) represents another source of risk, which needs to be monitored and managed carefully. The solution lies in taking a holistic assessment of the way the shadow and formal banking sector interacts and provides funding for the real economy. This calls for a comprehensive financial sector blueprint to improve transparency, promote financial diversification, and strengthen corporate governance, the credit culture and financial discipline as the basis for a modern, sound and stable financial system. The financial services industry, both incumbents and foreign players, will also need to change to meet the challenges posed by advances in technology and the rise of e-finance.

This book is organized as follows:

Chapter 2. Shadow Banking in the Global Context. This chapter reviews the evolution of shadow banking in the global context, including a survey of developments across selected countries. The attendant challenges in measuring shadow banking (given the lack of a common definition) are discussed, as well as the factors underpinning the industry's recent growth. This chapter also highlights the complex interconnections and feedback loops between shadow and commercial banks as a potential source of fragility in the financial system. The chapter highlights that there is a divergence of views over the role of shadow banks in the emerging markets vis-à-vis the advanced countries and therefore the issue of risks and supervisory oversight will be different from those in the advanced markets.

Chapter 3. Shadow Banking within the National Balance Sheet. This chapter analyzes the interconnectivity and relationships between the different components of shadow banking and formal banking through a stock-flow approach. Financial stability in a large economy suffers from risk concentration at the product level, the institutional level and also the geographical/regional level. Traditional economic analyses through flow accounts (national income, trade, investments) do not reveal these vulnerabilities. Recently published Chinese national balance sheet and flow of funds accounts, based on the *China National Balance Sheet Report 2013* and its latest update in 2015 published by the Chinese Academy of Social Sciences (CASS), offer revealing insights on the interconnectivities and vulnerabilities by sector.

Whilst useful from a systemic perspective, national balance sheet data represents a top-down, snapshot view of the situation in China and a review of current conditions. This study does not attempt to forecast dynamic changes in the Chinese economy and its interactions with changing global conditions. Conditions could well change dramatically for the worse if growth falters or property prices collapse due to some unforeseen shock. While a bottom-up approach and modeling of the dynamics between shadow banks, the real economy and China's risks as a whole could well offer additional insights and predictive value, such analysis is constrained by data limitations. Hence, the rapid growth in shadow banking credit warrants closer monitoring and management to preempt any escalation of risks and contagion effects.

By comparing leverage and where it is located within the national balance sheet, it would be possible to detect an economy's state of robustness or its fragilities, particularly at the sectoral level. Based on the national balance sheet approach, we conclude that a systemic crisis is unlikely in China, as its sovereign balance sheet shows a net asset position of RMB 103 trillion at the end of 2013 (162 percent of GDP) even after accounting for all gross liabilities, with ample net assets at the national, household and central government levels. Even if we were to exclude all its natural resource assets, the sovereign government's financial position remains solvent to avoid any potential liquidity problems. As China is a net lender to the rest of the world, any emerging debt problem will therefore be a domestic one without any direct global systemic implications. However, indirect contagion effects cannot be discounted, if market confidence in foreign holdings of China's bonds and securities is affected. We conclude that China's shadow banking problem is manageable under current conditions.

Time is of the essence in implementing remedial policies, as the national balance sheet analysis represents a snapshot or static view of the shadow banking situation at a point in time. The situation may change at short notice, due to some unexpected shock, as the shadow banks interact dynamically with the real sector and China's risks as a whole. The sooner the shadow banking risks are properly managed, the lower will be the risks of systemic vulnerability to changes in domestic confidence and contagion.

Some commentators have suggested that it is often difficult to distinguish, ex-ante, between a liquidity and a solvency issue. The solvency issue is closely tied to the management of liquidity, which is critical to the stability or fragility of different sectors. If real interest rates rise sharply due to sudden bouts of tight liquidity, rapid asset sales and panic demand for liquidity can cause significant damage to any economy with tight interconnectivity in terms of bank-shadow bank-enterprise credit risks. A liquidity crisis can precipitate a solvency crisis. This was the lesson of the Asian financial crisis of 1997–99.

China is almost unique because of its high level of foreign exchange (FX) assets relative to external debt. However, since such FX assets were funded by high reserve requirements, domestic liquidity is totally within the control of the central bank in terms of capacity to adjust the reserve requirements. In other words, China has a structural liquidity "trapped" through its monetary/foreign exchange policy that can be released judiciously without affecting confidence in the exchange rate. This option is not open to emerging markets with high net foreign currency debt.

Management of domestic liquidity during this period of structural adjustments to the "New Normal" of slower growth requires careful balancing of liquidity release by the central bank, without fueling a revival in inflation or speculative asset bubbles. This requires a combination of judicious monetary easing with tight regulation against abuses in credit allocation.

At the same time, as some overleveraged state-owned enterprises and local governments need to restructure their debt, the central government may need to step in to restructure such debt in order to reduce overcapacity and return them to stability and productive growth. It is important to note that most local government debt is still manageable, since the local governments have fairly high levels of assets that can be used to offset their debt. Of course, local government finances should be reformed through greater transparency, appropriate sharing of fiscal revenue between central and local government and also clarity of rules on issue of local government debt.

The key area of concern is the rising level of corporate leverage, which is not just confined to the banks, but also inter-enterprise debt, which is already high by international standards. However, concerns about high Chinese corporate debt/GDP ratios should be tempered by the large amount of deposits held by Chinese corporates. It is the rising level of cross-guarantees in the bank-shadow bank credit to enterprises that creates risks of contagion and moral hazard.

The national balance sheet approach reveals that fundamental reforms should be undertaken in the funding of corporate balance sheets, since they are currently too reliant on debt to fund their high levels of inventory and fixed assets. This means that the deepening of capital markets and getting more equity into SMEs and more efficient use of resources at the state-owned enterprise (SOE) level, could improve their profitability, ability to innovate and invest in high risk-high growth areas and therefore enhance resilience to shocks. Measures to further strengthen corporate governance and corporate social responsibility will also be important.

Chapter 4. Shadow Banking with Chinese Characteristics. Chapter 4 reviews the Chinese characteristics of shadow banks, including the factors behind the rapid growth in its key components, such as the trust companies, loan guarantee companies, wealth management products (WMP) and interbank credit. This chapter reviews the wide range of projections from official and market sources, including FGI's own estimate of the potential size of the Chinese shadow banking industry.

The rise of shadow banking in China can be traced to two key trends: firstly, as a "roundabout" market response to real sector funding needs, arising from special characteristics of the bank-dominated system that tend to lend more to the SOE sector than to private sector entities; and secondly, the search for yield, as households and the corporate sector sought higher returns on their savings than official capped deposit rates. These two forces combined to create the circumstances that allowed shadow banks to arbitrage/circumvent tight financial regulations in the formal banking sector.

Regulatory arbitrage also played a part. Given the strict bank lending quotas and the 75 percent loan-to-deposit ratio cap, shadow banking in China is largely an alternative form of off-balance sheet credit provision by banks to enterprise customers. At the same time, as there were caps also on deposit interest rates (since more liberalized), wealth management products (WMPs) evolved as deposit-substitutes for corporate and retail investors.

Chinese shadow banking is not as leveraged or sophisticated as shadow banking in advanced economies. However, it shares some of their weaknesses such as financialization, lack of transparency, weak corporate governance, and fraud and Ponzi schemes that make risk assessment more complicated than usual. Apart from definitional differences, the wide range of market estimates on the size of shadow banking assets reflects the problems associated with a simplistic addition of different products and assets of shadow banking activities with specific characteristics, which introduces an element of undercounting, as well as double or even triple counting. Adding banks' WMPs to other shadow banking assets held by other financial intermediaries (OFIs) will certainly lead to double counting when banks package OFIs' assets, for example trust loans, as their off-balance-sheet WMPs. If the trust company still reports the loan as a trust loan on their balance sheet, adding the two counts the same asset twice. On the other hand, if both the bank and trust company treat the loan as off-balance sheet, the loan does not appear anywhere (except as collateral for WMPs owned by investors) and there is undercounting. Furthermore, undercounting will occur if the officially reported data had underestimated the scale of exposure.

To address this problem, FGI has adopted the People's Bank of China's (PBOC) definition of China's shadow banking activities, supplemented by the three criteria in Yan and Li (2014) to arrive at a more realistic estimate (with a focus on systemic risks). Specifically, our estimate of the scale of China's shadow banking sector is based on our calculations on the scale of trust companies, microcredit companies, pawnshops, private/informal lending, peer-to-peer (P2P) Internet lending and guarantors, banks' WMPs and two kinds of interbank assets (entrusted loans and undiscounted banker's acceptances).

Based on our flow of funds approach to address these overlaps, we estimate the size of China's shadow banking market at RMB 30.1 trillion in 2013, significantly lower than the outcome of a "plain vanilla" product aggregation approach, which leads to about RMB 57 trillion.

WMPs should be correctly seen as deposit substitutes, which were created in order to offer clients higher interest rates. Because these were treated as off-balance sheet items previously, the credit risks were shifted to investors, who may have treated WMPs bought from banks as being covered under the implicit deposit insurance for bank deposits. Hence, the moral hazard in Chinese shadow banking is whether credit risks inherent in shadow banking products are ultimately borne by the state or borne by the market.

Chapter 5. Inherent Risks in Chinese Shadow Banking. This chapter examines in greater detail the implications of risks inherent in shadow banking at the product, institution and system levels. We estimate the non-performing loan (NPL) ratio for the shadow banking sector by estimating the NPL ratio of the funding obtained from shadow banking for each industry and computing the average NPL ratio across the industries weighted by the size of funding they get from shadow banking.

The next step was to downgrade the credit rating for bank loans to a lower quality level for shadow bank loans. We benchmarked shadow banking exposures in China against those of other Asian countries. In particular, we found that Korea had the most similarities with China since interest rate differences between bank and non-bank financing were largely the same. The credit ratings for shadow banking exposures in Korea were on average at least three notches lower than banking-related exposures. We therefore assumed for our optimistic case scenario that shadow banking exposures should be downgraded by three notches compared to the related banking exposures. In the other three scenarios, namely, a Base Scenario, a Pessimistic Scenario and a Disaster Scenario, we applied the credit ratings for shadow banks by downgrading their ratings by 4 notches, 4 to 5 notches, and 5 notches, respectively. The distinction of downgrading reflected the different severities of the asset quality problem of the shadow banking sector across different scenarios. By mapping the resultant credit rating for shadow banks to the corresponding NPL ratios, we derived a proxy for the shadow banking NPL ratios for each industry.

The shadow banking asset distribution across industries was based on estimates from Morgan Stanley research. Using the asset size as weights, we calculated the weighted average of shadow banking NPL ratios across the industries and obtained an estimation of the NPL ratio for the whole shadow banking sector. The results showed that the NPL ratio for the shadow banking sector was 4.4 percent in the Optimistic Scenario, 10 percent for the Base Scenario, 16.1 percent for the Pessimistic Scenario and 23.9 percent for the Disaster Scenario.

Based on the risk profiles, we divided the shadow banking industry into three segments. The first layer is the formal banks' off-balance sheet lending, including WMPs, banker's acceptances, securities firms' AMPs, and bank–trust cooperation. The linkage between the off-balance sheet funding layer and the formal banks is tight as many of these can switch from being a contingent liability to a realized liability for banks, given that the implicit guarantees for investors persist in the market.

The second layer is the non-bank credit enhancement to facilitate lending, including guarantees. Banks are subject to risk when credit enhancers fail to repay for defaulted corporate loans. The last layer is the non-banking lending; for example, P2P and microfinancing. Usually there is no risk spillover to banks from this layer of shadow banking.

Each of the three risk layers comes with a different transferability of risks into the banking system. Hence, we calculated which share of NPLs was likely to be transferred from the shadow banking to the formal banking system.

We estimated the impact of shadow banking non-performing assets on banks' NPLs in two tracks. One is to load the shadow banking NPLs on the base of the formal banks' current NPL ratio. Under the Base Scenario with 33 percent of shadow bank NPLs transferred to banks, banks' NPL ratio will rise from the current level of 1.5 percent to 2.5 percent, which is still under the coverage of existing NPL provisions. In the Disaster Scenario, banks' NPL ratio will rise to 4.9 percent, slightly higher than the banking system's current provisioned levels of 4.6 percent of risk-weighted assets.

The other track is to sum up banks' current NPL ratio and the additional provision first and take it as the base of banks' NPL. This is to cover the concern that the NPL ratios reported by banks underestimate the real problem. Under the Base Scenario, the banks' NPL ratio remains under 5.1 percent, while in the Disaster Scenario, it can go up to 7.2 percent. As China is a net lender to the world, any financial crisis will not escalate into a foreign exchange crisis.

At this point in time, three factors suggest that a financial crisis remains unlikely as China has the policy space to manage any emerging risks: (1) China is still a fast growing economy with growth at 6–7 percent per annum, which would allow it to grow out of rising NPL or credit losses; (2) China's high domestic savings will enable the household sector to absorb a significant amount of shocks; and (3) Total government debt is still manageable, even taking into consideration potential losses from the shadow banking system. Furthermore, China's high foreign exchange reserves, exchange controls and low external debt enable policy makers to avoid a foreign exchange crisis from external sources.

Nevertheless, a combination of slower world growth and trade, plus the threat of domestic real estate price adjustment, could create conditions for an escalation of domestic financial risks. While China's shadow banking risks are unlikely to trigger a global crisis, any further deterioration could affect market confidence and have indirect, contagion effects on foreign holdings of China's bonds and securities. The risks of contagion will grow as China plays an increasingly significant role in global growth, trade and investments. All these underscore the need for prompt action to resolve the shadow banking issues to preempt any contagion effects.

The official treatment of shadow banking in China divides institutions into three categories – those that are fully regulated, those that are partially regulated (such as those for disclosure or registration purposes, but not for prudential purposes) and those that are largely unregulated (such as pawnbrokers and microlenders). As the Chinese authorities induced the banks to bring WMPs onto the balance sheet, the size of the WMPs began to increase but this was largely a shift between deposits and quasi-deposits. What is more relevant from the risk perspective is the quality of assets of the banks and shadow banks.

There are four key risk exposures for banks and shadow banks. These are essentially lending to four key sectors – the property sector, the state-owned enterprises (SOEs), local government financing platforms (LGFPs) and the private sector, largely small and medium enterprises (SMEs).

Such loans are complicated by three intertwined practices that affect the quality of the credit and therefore an accurate assessment of the true exposure to the banking system. These are "evergreening," "inter-enterprise credit" and a further element of fraud arising from corruption that cannot be ruled out.

Evergreening occurs when a borrower begins to borrow from different banks using different legal entities, escaping detection when it borrows outside the formal banking system by funding from shadow banks, often at usurious interest rates.

Inter-enterprise credit occurs through borrowing directly from other enterprises in the form of trade credit or packaged credit sold to cash-rich enterprises, which seek higher deposit rates. This binds the credit risk of cash-rich enterprises with weaker, illiquid borrowers. Evergreening merely postpones the debt problem and is unsustainable, while bundling of risks via inter-corporate guarantees and corporate purchases of WMPs that contain other corporate risks leads to a tangled web of risks that are not easily identifiable by a single bank. Effective debt resolution must include assignment of losses to the parties involved, be it the corporate sector, households or government. This exercise will require on-site examination and identification of risk, which will inevitably take time and require greater transparency in the process.

Chapter 6. Impact of Technology on China's Financial System. This chapter discusses the flip side of the "credit" and "risk" perspective of the Chinese shadow banking sector: the emerging Internet revolution. China has one of the fastest technology adaptation rates and a fast growing community of customers able and willing to use new technologies. The rise of e-finance platforms will have implications for regulators, particularly in creating a conducive enabling environment (including appropriate disclosure, capital and prudential standards on a level playing field) while managing any negative effects of cyber-security, identity theft and fraud.

This emerging trend also has strategic implications for incumbent Chinese players and international financial services institutions. Specifically, this chapter considers the rise of Alibaba and the impact of technological innovations on the financial system. It examines recent developments in e-commerce and e-finance that have facilitated a transformation of the business model of SMEs and the distribution and production industry, as well as made inroads into the payments, credit and wealth management business of the banking sector by leveraging on technology and partnerships between e-commerce and e-finance networks.

The Chinese economy is also benefiting from the productivity gains and access of SMEs to a new production, distribution and payments model using e-commerce and e-finance (the "clicks" business model). At the same time, there is creative destruction of the conventional business model offered through "bricks and mortar" branches (bank branches and retail shops). SMEs discovered that they are able to reach different market segments through the Internet, and obtain trade credit and payments with online convenience. At the core is a fundamental competition between the "clicks" and the "bricks" business models that will rapidly converge. However, an effective response to the new competition will require not only changes in the business model of Chinese banks, but also a re-think of the whole approach to financial regulation and development. The aim is to encourage healthy financial innovation and competition while maintaining financial system stability and avoiding excessive risk taking and exploitation/fraud. The banking industry (both incumbents and foreign players) will need to adopt different strategies to meet the challenges of e-commerce and e-finance.

Chapter 7. Implications for Reform Agenda. Chapter 7 discusses the need for shadow banking reforms across the three risk layers we have identified and then considers China's options for its overall financial reform agenda. This includes immediate, medium and longer-term measures to address the potential risks of shadow banking and promote a more sustainable and inclusive financial system. The priority in the short term is to expedite the implementation of the recently announced decisions to establish a deposit insurance and exit mechanism to deal with problem banks. This is because the re-regulation of the financial sector and introduction of more market-based interest rates and exchange rates will have implications for the survival of weaker financial institutions and their exit.

At the same time, priority should be accorded to implementing the Legal Entity Identifier (LEI) to clarify who owes what to whom. This will disentangle the problem of evergreening, inter-enterprise credit and fraud. After the failure of Lehman Brothers, the FSB noted that the market and the regulators did not know who transacted with whom (especially SPVs) and who is responsible for what debt. Hence, there is a drive for a global LEI initiative, which should be implemented at the national level. This is an excellent opportunity for China to clarify the data standard for determination of credit obligations by each legal entity. Without LEI clarity, there is no clarity of who owes what, enabling evergreening and Ponzi schemes to occur without adequate credit controls. Credit culture cannot be built without a uniform data standard.

Looking beyond the shadow banking issue, it is opportune to consider the formulation of a comprehensive financial sector blueprint to ensure that the financial system is aligned to China's long-term policy objectives to promote sustainable and inclusive development. In essence, the overreliance of developmental funding on the banking system should be addressed through the promotion of longer-term institutional investors such as pension, insurance and private equity asset managers. Deeper equity markets (including private equity and cloud equity funding for SMEs) would reduce the overdependence on debt and leverage that exposes the financial system to sharp liquidity shocks and systemic risks. At the same time, financial deepening would also improve the allocation of capital, increase returns for savers/investors and minimize the risks of a debt-driven financial meltdown.

Given the profound changes in the real sector and the need to provide inclusive finance and finance for long-term structural change, including funding for urbanization, innovation and ecological sustainability, a whole raft of legislative and institutional changes will be necessary. This would include reform of the financial legislation to clarify the roles of regulatory authorities and NBFIs, promote financial inclusion, consumer protection, corporate governance and a stronger credit culture as the basis for a modern, sound and stable financial system in China. Regular dialogues with key stakeholders, including the top leadership and consumers are important to garner support and obtain feedback on the reform process.

Chapter 8. Conclusion. This chapter notes that the Chinese authorities have already taken a number of preemptive measures to address the shadow banking problems. What is needed is more careful management of the potential rise in shadow banking NPLs, moral hazard and exploitation/fraud risks. Greater clarification of the roles and responsibilities of different agencies in dealing with the issues of regulatory arbitrage and gaps and overlaps will be important. The rapid growth in shadow banking and lack of clarity in credit accountability raises potentially damaging moral hazard implications for the economy as a whole, which must be resolved through greater transparency and accountability.

Implementation of the LEI initiative to untangle the opaque bundling of risks between enterprises, shadow and commercial banks is a necessary but not sufficient condition to restore China's credit culture and accountability. The key lies in introducing greater clarity and transparency of property rights, corporate governance, credit discipline, and allowing failed enterprises and weak banks to exit in an orderly manner without huge moral hazard consequences.

Although certain aspects of shadow banking can pose contagion and moral hazard risks, it offers a historic opportunity to address the need to build a strong credit culture to utilize China's precious savings more efficiently, inclusively and sustainably for its long-term development. A holistic methodology using the national balance sheet approach helps to refine the analytical comparatives and interrelationships to examine how to develop the financial sector in the long term. Whilst providing a systemic overview, the limitations of any assessment based on national balance sheet data are that it does not attempt to forecast dynamic changes in the Chinese economy and global conditions, which would have data requirements outside the scope of this study. Conditions could well change dramatically for the worse if growth falters or property prices collapse due to some unforeseen shock. Hence, time is of the essence in implementing the necessary reforms to manage the shadow banking risks and, more importantly, to ensure that the financial sector is transformed in tandem with China's changing requirements.

In the second decade of the 21st century, China is facing new 21st century challenges of moving beyond the "middle income trap." One opportunity is to harness technology and the changing consumer tastes and lifestyles to generate new products and services. The other is to change the way the transformation of the new business model is funded. Given high risks and unpredictable black swans, the way forward is to provide innovative companies with higher capital cushions and less leverage. In other words, the risks would be shared through an equity-based financing model rather than in a bank-based, debt model with high concentration of risks in borrowers with high leverage and huge maturity mismatches.

The opportunity of China's transformation cannot be missed, as risks are building up both externally as the world market slows and internal fragilities are surfacing. Time is of the essence, and the sooner these risks are confronted, the sooner China will break through the middle income trap.

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