

CIGI Papers No. 164 – March 2018

The Macro Prudential Assessment Framework of China

Background, Evaluation and Current and Future Policy

Liansheng Zheng



CIGI Papers No.164 – March 2018

The Macro Prudential Assessment Framework of China

Background, Evaluation and Current and Future Policy

Liansheng Zheng

CIGI Masthead

Executive

President **Rohinton P. Medhora**
Deputy Director, International Intellectual Property Law and Innovation **Bassem Awad**
Chief Financial Officer and Director of Operations **Shelley Boettger**
Director of the International Law Research Program **Oonagh Fitzgerald**
Director of the Global Security & Politics Program **Fen Osler Hampson**
Director of Human Resources **Susan Hirst**
Interim Director of the Global Economy Program **Paul Jenkins**
Deputy Director, International Environmental Law **Silvia Maciunas**
Deputy Director, International Economic Law **Hugo Perezcano Diaz**
Director, Evaluation and Partnerships **Erica Shaw**
Managing Director and General Counsel **Aaron Shull**
Director of Communications and Digital Media **Spencer Tripp**

Publications

Publisher **Carol Bonnett**
Senior Publications Editor **Jennifer Goyder**
Publications Editor **Susan Bubak**
Publications Editor **Patricia Holmes**
Publications Editor **Nicole Langlois**
Publications Editor **Lynn Schellenberg**
Graphic Designer **Melodie Wakefield**

For publications enquiries, please contact publications@cigionline.org.

Communications

For media enquiries, please contact communications@cigionline.org.

Copyright © 2018 by the Centre for International Governance Innovation

The opinions expressed in this publication are those of the author and do not necessarily reflect the views of the Centre for International Governance Innovation or its Board of Directors.



This work is licensed under a Creative Commons Attribution – Non-commercial – No Derivatives License. To view this license, visit (www.creativecommons.org/licenses/by-nc-nd/3.0/). For re-use or distribution, please include this copyright notice.

Printed in Canada on paper containing 100% post-consumer fibre and certified by the Forest Stewardship Council® and the Sustainable Forestry Initiative.

Centre for International Governance Innovation and CIGI are registered trademarks.

Centre for International Governance Innovation

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

Table of Contents

vi	About the Author
vii	About the Global Economy Program
vii	Acronyms and Abbreviations
1	Executive Summary
1	Introduction
2	Background
6	The Framework of the MPA
9	Policy Improvements of the MPA
12	Future Policy
15	Conclusions
15	Works Cited
18	About CIGI
18	À propos du CIGI

About the Author

Zheng Liansheng is a CIGI visiting scholar. He is a senior research fellow and deputy director of the Research Center for Financial Law and Regulation at the Institute of Finance and Banking, Chinese Academy of Social Sciences (CASS). Liansheng has been associate professor at the Graduate School, CASS, since 2014. He also serves as a senior fellow of the National Institution for Finance and Development, CASS, and a fellow at the Research Institute of Maritime Silk-Road, HSBC Business School, Peking University. Liansheng was chief investment strategist of Guangfa Funds Management from 2012 to 2013 and senior economist of China Securities Company from 2009 to 2012 before joining CASS in July 2013. He was a researcher at the Asia-Pacific Finance and Development Center in China's Ministry of Finance from 2007 to 2009. He started his career as an engineer at Shanghai Aircraft Institute in 2002. He received his Ph.D. in economics from CASS in 2011.

About the Global Economy Program

Addressing limitations in the ways nations tackle shared economic challenges, the Global Economy Program at CIGI strives to inform and guide policy debates through world-leading research and sustained stakeholder engagement.

With experts from academia, national agencies, international institutions and the private sector, the Global Economy Program supports research in the following areas: management of severe sovereign debt crises; central banking and international financial regulation; China's role in the global economy; governance and policies of the Bretton Woods institutions; the Group of Twenty; global, plurilateral and regional trade agreements; and financing sustainable development. Each year, the Global Economy Program hosts, co-hosts and participates in many events worldwide, working with trusted international partners, which allows the program to disseminate policy recommendations to an international audience of policy makers.

Through its research, collaboration and publications, the Global Economy Program informs decision makers, fosters dialogue and debate on policy-relevant ideas and strengthens multilateral responses to the most pressing international governance issues.

Acronyms and Abbreviations

CBRC	China Banking Regulatory Commission
CIRC	China Insurance Regulatory Commission
CSRC	China Securities Regulatory Commission
FSB	Financial Stability Board
FSAP	Financial Sector Assessment Program
G20	Group of Twenty
IMF	International Monetary Fund
JMC	Joint Ministerial Committee
MPA	Macro Prudential Assessment framework
N-SIFIs	national systemically important financial institutions
PBOC	People's Bank of China
RMB	renminbi
SHCI	Shanghai Composite Index
SZCI	Shenzhen Composite Index

Executive Summary

Driven by the push for international regulation cooperation and the domestic demand to deal with potential systemic risks, China introduced the Macro Prudential Assessment (MPA) framework on January 1, 2016. International regulation coordination, the need to handle domestic accumulated financial risks, adapting to changes in banks' balance sheets and interest rate liberalization are the main incentives for China to launch a regulation system with macroprudential perspectives and microprudential standards. The MPA system, with seven categories and 18 sub-indicators,¹ aims to address pro-cyclical effects, interconnectivity and regulatory arbitrage, and improve market-based reforms. Based on the MPA mechanism, the central bank of China will establish a double-pillar framework combining monetary and macroprudential policy. The double-pillar system is trying to deal with the potential systemic challenges in the financial system, strengthen the counter-cyclical functions of the policy arrangements, modify aggregate management and improve regulation coordination and integration.

Introduction

Since the 2008 global financial crisis, macroprudential policy has been one of the main approaches to addressing potential financial risks, in particular systemic risks. Many economies have conducted specific reforms of their financial regulation systems with macroprudential mechanisms, standards and tools. For example, the Financial Stability Oversight Council and the European Systemic Risk Board have been established in the United States and in the European Union, respectively, in order to monitor, prevent and mitigate potential systemic risks and maintain financial stability. What is more, macroprudential policies have been introduced to the international community under the framework of the Group of Twenty (G20) — they were first declared a policy priority at the Seoul G20

Summit in November 2010 — and have become an important element for global economic governance.

As the world's second-largest economy, China suffered significant damaging impacts from the global financial crisis. The experiences of the Chinese government in dealing with the negative shocks of the global financial crisis — specifically the ¥4-trillion stimulus plan² — demonstrated that China is not a seasoned veteran able to balance overcoming financial risks with an economic growth objective. The financial system of China has changed a great deal since the global financial crisis. Mixed business has been a dominant model for most financial sub-sectors, including the banking sector, with booming shadow banking businesses. After China's economy entered the "new normal" stage,³ domestic financial risks accumulated and have become a more and more obvious threat to financial stability. Building up a comprehensive, effective and efficient financial regulation framework with macroprudential perspectives and microprudential standards has been a very important reform goal for China.

The MPA framework was discussed in 2015 and announced as a formal policy by the People's Bank of China (PBOC), the central bank of China, at the end of 2015. China launched the MPA system formally on January 1, 2016, and updated it in on January 1, 2017.

1 The MPA initially had 14 sub-indicators.

2 In order to recover economic growth and employment after the global financial crisis, the Chinese government deployed a stimulus package that included expanding investments, promoting consumption and improving exports. The total amount of stimulus was more than ¥4 trillion.

3 The "new normal" was first used by the head of the Pacific Investment Management Company, Mohamed A. El-Erian, in a speech titled "Navigating the New Normal in Industrial Countries," to describe the situation following the global financial crisis of 2007-2008 and the aftermath of the 2008-2012 global recession. Here, it refers to China's new normal, which was defined by Chinese President Xi Jinping in 2014 to indicate the specific transition period of China's economy. China's new normal has three characteristics: the growth rate shifting from high speed to medium-high speed; the economic structure changing from an export- and investment-driven model to a consumption-based model; and the future development model being an innovation-driven one.

Table 1: Macroprudential Bodies in Select Economies

	United States	European Union	The Netherlands	Germany	United Kingdom
Macroprudential body	Financial Stability Oversight Council	European Systemic Risk Board	Financial Stability Committee	Financial Stability Committee	Financial Policy Committee under the Bank of England
Date of establishment	July 2010	December 2010	November 2012	January 2013	April 2013

Source: Financial Stability Board (FSB) (2015).

Background

The PBOC has used macroprudential tools since 2010. China’s MPA came into force on January 1, 2016. There were significant international and domestic reasons for the launch of the MPA framework.

Coordination with International Regulation

According to international perspectives, the destructive impact of the global financial crisis, the promotion of governance architecture and the experiences of regulatory reforms in leading advanced economies contributed a great deal to China’s macroprudential policies. Soon after the global financial crisis in 2007-2008, the most serious financial shock since the Great Depression, China began to oversee its financial system with a broader vision and imposed differentiated reserve requirements in the banking system and specific macroprudential approaches in the field of cross-border capital movement in 2011 (Zhang 2016). The global governance innovations in financial regulation under the framework of the G20 played an essential role in pushing China to set up a more comprehensive regulation system. The macroprudential policies recommended by leaders at several G20 summits, such as the capital conservation buffer, counter-cyclical capital buffer and financial security network, became fundamental incentives for China’s design of its own macroprudential system. Macroprudential policy was first posited as China’s formal policy choice in the *China Financial Stability Report 2010* (PBOC 2010) and was strengthened in the *China Monetary Policy Report* (PBOC 2015a). China’s macroprudential policy has been strengthened in the 12th Five-Year

Plan (2011–2016) for national development and in the reform framework set by the 18th National Congress of the Communist Party of China (2012).

In addition, the cooperation and coordination in regulation standards within the FSB, the International Monetary Fund (IMF), the World Bank, the Basel Committee on Banking Supervision and other international organizations also contributed to China launching the macroprudential policies and improving its regulation practices. The 2011 Financial Sector Assessment Program (FSAP) by the IMF and the World Bank constructively suggested that China enhance its macroprudential management framework and comprehensively regulate the non-bank credit intermediation (IMF 2011). The peer review of China conducted by the FSB (2015) pointed out that the macroprudential tool kit adopted by the PBOC is “rather limited” and that the authorities need to establish an integrated systemic risk assessment system. Last, but not least, the regulatory reforms in the United States, the European Union, the United Kingdom and in other economies provided some ideas on China’s financial regulation and financial market reforms. For example, the redefinition of functions of the Bank of England, with the cancellation of the Financial Services Authority and the establishment of the Financial Policy Committee and Prudential Regulation Authority under the bank, provided insightful incentives for the Chinese government to consider its central bank’s functions — not only the role of monetary policy, but also the responsibility of financial stability (see Table 1). The “British model” had been regarded as the best choice for China’s financial regulation reform (Li Bo 2016).⁴

⁴ Until the end of 2017, Li was the director general of the monetary policy department of the PBOC.

Addressing Domestic Systemic Risks

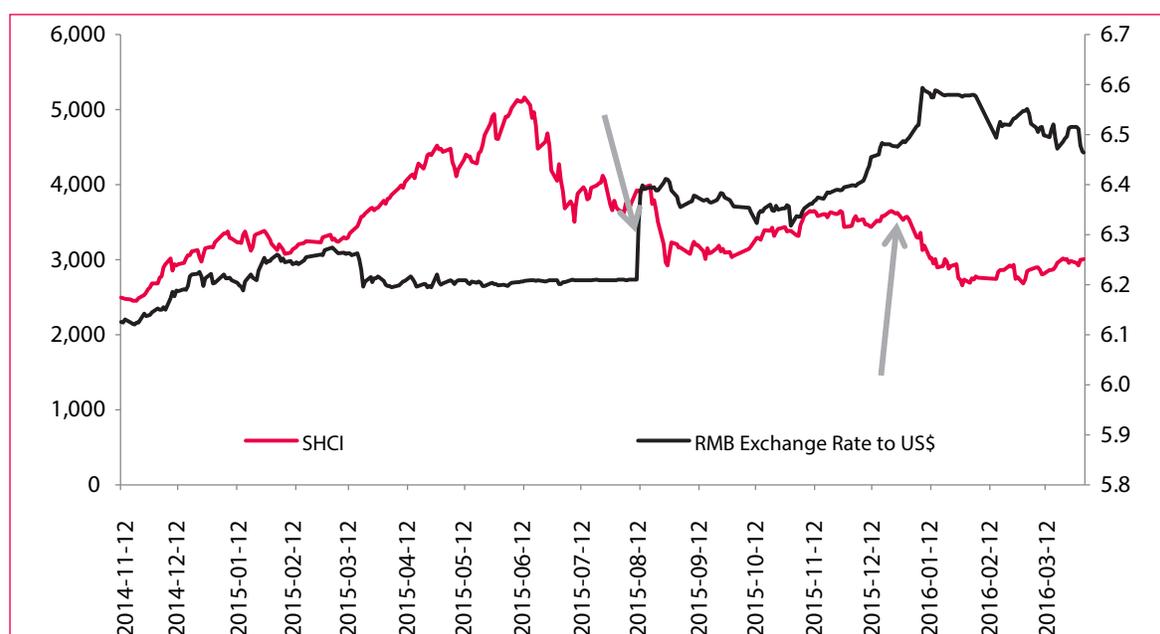
Addressing domestic financial risks and avoiding systemic financial risks played a key role in China introducing the MPA system. Dealing with the potential systemic risks is the dominant domestic factor pushing China to deploy a comprehensive macroprudential framework. With China's economy shifting from a high growth rate to a medium-high growth rate since 2012, entering the so-called new normal period, the central government required the authorized regulators to hold the bottom line so that systemic financial risks did not occur.

During the last several years, China has witnessed a few challenges and built up financial risks, which put significant pressure on China's financial supervision and regulation system. Although some regulators regard certain specific financial risk events as stress testing, they also believe that it is necessary to build up a financial safety net as soon as possible. For example, on June 20, 2013, China suffered a serious liquidity problem (the so-called liquidity drought or money drought) in the interbank market with a very high overnight lending interest rate (34.4 percent) during the trading session. The regulator conducted a half-hour abnormal extension for the trading

session while the closing rate of overnight lending was still as high as 13.4 percent.

The stock crash that took place in mid-2015 triggered the process for the Chinese government to build up a more comprehensive and integrated financial stability mechanism with macroprudential approaches and effective coordination methods. The Shanghai Composite Index (SHCI) dropped from 5,178.2 on June 12, 2015, to 3,507.2 on July 8, 2015, or 32.5 percent. The Shenzhen Composite Index (SZCI) fell 41.4 percent during the same painful period. Just about one month later, on August 11, 2015, the "8/11" foreign exchange rate regime reform triggered another round of stock crunch and a self-feedback spiral decline between the equity market and the foreign exchange market. The SHCI and the SZCI further sank to 2,850.7 and 1,695.8 on August 26, 2015, respectively, when the renminbi (RMB) suffered a three percent depreciation. The market capitalization of the stock market shrunk more than ¥33 trillion, or 48 percent of China's GDP in 2015. The story did not end until the early trading days of 2016, when the circuit breaker mechanism was introduced in the market. The SHCI suffered an 8.22 percent loss on January 4, 2016, (the first trading day), and a nearly 30 percent loss for January 2016. The market meltdown of seven percent was fused within 30 minutes of opening in the third trading day of

Figure 1: The Feedback Effects between the Foreign Exchange Market and the Stock Market in China



Data source: Wind.

2016, and followed a cancellation of the circuit breaker mechanism, surviving for only three days. During the same month, the RMB exchange rate also experienced a sudden fall (see Figure 1).

The risks and related significant losses in the financial markets demonstrated three lessons to China's regulatory community. First, the essential structural changes in financial businesses and interconnections created by the financial institutions and other market participants through many so-called financial innovations might lead to internal fragility and vulnerability. Second, the internal risks, such as fluctuations in domestic stock markets, and the external threats, such as turbulence in foreign exchange markets, can cause negative feedbacks to each other and lead to a more serious risk. Third, the overall unsoundness of a regulatory system and its rules can be a trigger for financial risks.

Besides the above risk events, the financial risks with China's characteristics served as the main incentive for the Chinese government to set up a system-wide assessment and regulation framework (IMF 2017). First, GDP growth objectives made the monetary and fiscal policies expansionary and led to higher leverage in the corporate sector, local governments and the economy as a whole. The high leverage was regarded as the first challenge to addressing systemic risks (Zhou Xiaochuan 2017). Second, the overcapacity problem and the non-viable firms (or "zombie" enterprises), in particular at the state-owned enterprise level, produced a serious balance-sheet mismatch, while the financial system has limited flexibility to suspend credit supply or to control their risks. Third, the worst thing is that the banking sector had not refused the financial demands from state-owned companies and local governments, but deployed a lot of "financial innovations" to feed them. Regulatory arbitrage meant a great part of risky financing moved away from banks toward the less regulated financial subsectors. Non-bank credit supplies (most of them being shadow banking businesses) have rapidly expanded since 2010 through trust plans, complex investment instruments, wealth management products and even insurance products. For example, the total managed assets of the trust sector, the second-largest financial subsector in China, jumped from ¥2.01 trillion in 2009 to ¥24.41 trillion at the end of the third quarter of 2017. The trust companies' assets were equivalent to 90 percent of total other financial

intermediaries of China, while the number was only four percent, on average, in the 28 jurisdictions at the end of 2015 (FSB 2017). Finally, the risk-pricing mechanism could not distinguish the exact credit spreads and price them precisely — not only at retail and wholesale markets such as loans to enterprises, but also at primary markets such as interbank markets and bond-issuing markets. As a result, implicit guarantees have been an underlying rule in China's financial system. The interest rate pricing also suffers essential challenges, in particular in terms of short-run rates. In the last couple of years, the credit defaults have happened frequently, in particular in bond markets, while the implicit guarantees are still very popular.

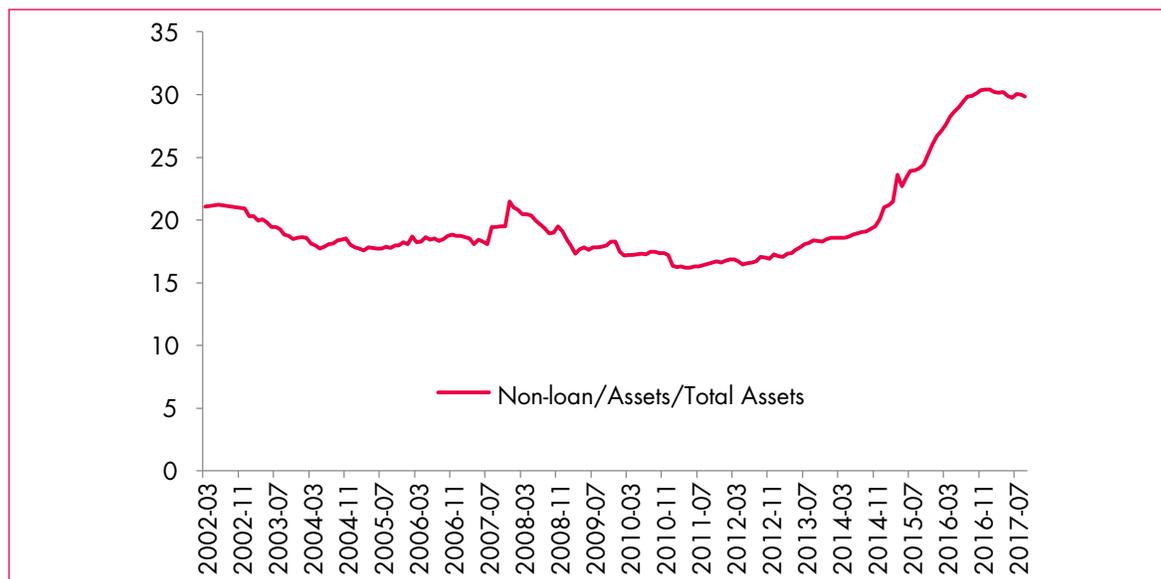
Adapting to Diversification of Banks' Asset Allocation

Before 2015, the asset allocation in the banking system was relatively easy and simple. The loans to enterprises and individuals accounted for nearly 80 percent of the total assets of the banking sector. As a consequence, the PBOC had to rely heavily on the approach of the differential reserve requirements and the consensus loan management system⁵ to regulate the banking sector.

However, with economic growth slowing down in China, the yield of loans shrunk significantly. The interest rate margin decreased from 270 basis points in 2014 to 220 basis points in 2015. The loans had become more and more risky under the condition of a weak economy with obvious deflation pressure (China's Producer Price Index suffered a 54-month-long decrease from March 2012 to September 2016, and the Consumer Price Index was also quite low at 1.4 percent in 2015 and 2.0 percent in 2016) in the manufacturing sectors. The banking sector therefore suffered an "asset drought," which means profitable loans have essentially decreased for the banking sector. The dominant assets in China during its high-speed growth period were loans to big companies and local governments. Facing an asset drought, the traditional credit-driven model of the banking system had to be changed. Based on financial innovations, mixed business

5 This is a system for the central bank to manage every bank's credit quota and supply process during a specific period depending on the bank's balance sheet and the real economy. It is better than the previous pure quantity control system because it considers the dynamic situation of the banks and the economy. The system gave strong power to the PBOC to adjust banks' quotas and to deploy window guidance. It is still a quantity management system. What is more, the banks' operation and flexibility are essentially reconstrained.

Figure 2: The Non-loan Asset Ratio of China's Banking Sector



Data source: Wind.

operations and even regulation arbitrages, many banks have diversified their massive assets on new asset categories such as bonds, equities and other investments. However, those new assets do not belong to loans and cannot be controlled through a quantity-based credit control system.

In a banking system with diversified assets, the quantity-based differential reserve requirements and consensus loan management regulation system have lower effectiveness and efficiency. According to research by Zhang Xiaohui (2016), the assistant governor of the PBOC and one of the designers of the MPA framework, the bond investments, equity investments and other investments constituted nearly 25 percent of the total assets of the banking sector at the end of 2015 (see Figure 2). A great part of those investments was mostly conducted by the banks through cooperation with non-bank institutions, such as trust companies, securities firms and even the platforms of local governments. The central bank did not have enough resources and instruments to track those investments and figure out their impacts on the transmission of monetary policy and the stability of the financial system. That means some of the financial innovations through bond, equity and other investments might lead to weaker regulation efficiency and bring about more dangerous risks, in particular potential systemic risks.

During the asset diversification process of the banking system, cross-sector or cross-market cooperation has been created and deepened. Asset-management businesses, including wealth management products, trust investment plans and collective wealth management in securities companies, are booming, and this has pushed China into a new era of asset management. As mentioned by Li Chao (2016), the vice chairman of the China Securities Regulatory Commission, in mid-2016, the total value of China's asset management business was over ¥60 trillion,⁶ or 80.8 percent of China's GDP in 2016. Most asset management businesses involved credit supply and provided financing to state-owned companies, the real estate sector, the platforms of local governments and others, while many of them were outside the banks' normal balance sheets. The cross-sector cooperation, out-of-balance-sheet businesses and the mixed businesses have diminished the effectiveness of the separated regulation system, which mainly includes the central bank (monetary policy) and three regulatory commissions (the China Banking Regulatory Commission [CBRC], the China Securities Regulatory Commission [CSRC] and the China Insurance Regulatory Commission [CIRC]) and have led to an institutional mismatch between the mixed

⁶ Here the asset management business is not conducted by licensed financial asset management companies, but by some types of wealth management products.

business and the separated regulation. Therefore, it is necessary for the regulators to shift the quantity-based regulation system to a more comprehensive framework with macroprudential perspectives in order to achieve the objective of financial stability.

The MPA system, in adapting to the diversification of banks' asset allocation, moves the central bank beyond regulating the banking industry to overseeing more financial businesses outside of the banking system. The PBOC has become more powerful — more powerful than other industrial regulators. After the country started to reform the regulation system, there was strong debate about whether the PBOC was the most appropriate entity to be the comprehensive regulator. For China, looking at what other countries have done and considering its own situation often makes sense when it comes to many of its important reforms. Therefore, the experiences of the Federal Reserve System and the Bank of England might have had very important implications for China's financial regulation reform. The reform agenda is that the PBOC will play a more essential role in financial stability and has a two-pillar policy framework, combining monetary policy and macroprudential policy. Although the PBOC will play a greater role in financial stability, the newly established committee, the Financial Stability and Development Committee under the State Council, will play a dominant role in the regulation and policy coordination of the entire financial system.

Interest Rate Liberalization

The interest rate pricing mechanism is fundamental to financial stability. Since 2012, the process of interest rate liberalization has been accelerated in China. The deposit interest rate ceiling was abolished by the PBOC in October 2015, about two years after the lending floor was scrapped. In a more flexible interest rate system, the banks have incentives to expand their liabilities through providing higher deposit interest rates, provided they can find very profitable assets. Driven by the strong financing demands from the state-owned companies and local governments, some banks diversified their assets through bonds, equities and other investments, which resulted in quite high revenues. During this process, the so-called active liability model has been a dominant business in China's financial system. The active liability model means some financial institutions provide very high interest rates to deposits or other lending to get liquidity, and then supply credits to the

borrowers who pay higher interest rates. Wealth management products and short-run lending in the interbank markets are the two main tools for those financial institutions to get liquidity. A great part of wealth management products is serviced by the shadow banking system. Overnight lending had witnessed massive growth, from ¥3.2 trillion in February 2015 to ¥ 9.4 trillion in August 2016. The consequence of massive short-run lending is that the interest rates are not rational, putting the whole system in a riskier situation. For example, some local urban or rural banks supplied interest rates that were two times the benchmark rate or even higher to feed their huge assets and to aggressively expand their balance sheets (Zheng and Yang 2016). The regulators, including the PBOC, believed some financial institutions misunderstood the policy implications of interest rate liberalization and undertook much too risky operations through off-balance-sheet business, interbank trading and non-standard investments.

The Framework of the MPA

The MPA framework launched by the PBOC has seven categories, with 18 sub-indicators covering the main regulation standards for the banking system⁷ and its specific evaluation approaches with a reward-and-punishment mechanism (see Figure 3).

The Evaluation Methods

In the MPA framework, the banking system is the object to be regulated. The banking system in China includes banks (four state-owned banks, three policy banks, 13 joint-stock banks, one postal saving bank, and a great number of urban banks, rural banks and foreign banks) and non-bank financial institutions, such as

7 The MPA system mainly regulates the banking system. Some people might argue that the mismatch of mixed business and separate regulation is not solved yet, and that is still a problem. However, with the MPA system, the mismatch will be essentially mitigated. First, China's financial system is a bank-dominated one. Second, the financial institutions in the banking system are the dominant players of the mixed business. Finally, coordination will be strengthened in the future due to the establishment of the Financial Stability and Development Committee under the State Council. The committee's secretary office has been set at the PBOC.

Figure 3: Categories and Indicators of the MPA Framework

Capital adequacy ratios and leverage ratios	<ul style="list-style-type: none"> Capital adequacy ratios (80%), leverage ratios (20%) and total loss-absorbing capacity (0%)
Banks' assets and liabilities	<ul style="list-style-type: none"> Broad loans (60%), entrusted loans (15%), interbank borrowing (15%)
Liquidity conditions	<ul style="list-style-type: none"> Liquidity coverage ratio (40%), net stable funding ratio (40%), reserve requirements (20%)
Pricing behaviour for interest rates	<ul style="list-style-type: none"> Competitiveness behaviours (50%), deviation of deposit interest rates (50%)
Quality of assets	<ul style="list-style-type: none"> Non-performing loans (50%), provision coverage (50%)
Cross-border financing	<ul style="list-style-type: none"> Position of foreign liabilities (60%), currency structure (20%) and maturity structure (20%)
Execution of credit policy	<ul style="list-style-type: none"> Execution of monetary policy (70%), usage of central bank's financing (30%)

Source: PBOC (2015b).

financial companies, trust companies, financial asset-management companies, financial leasing companies and consumption financial companies. All banks in China should be evaluated under the MPA framework. This paper mainly focuses on the evaluation of the banks, with some discussion of financial companies, an important type of non-bank financial institution in China.

The MPA framework is a quarterly evaluation system and divides the banks into three classes: the national systemically important financial institutions (N-SIFIs), the regional systemically important financial institutions and the common financial institutions. These three classes of financial institutions are evaluated by different levels of administration at the PBOC. The N-SIFIs, such as the Commercial and Industries Bank of China, the largest bank in China, are evaluated by the headquarters of the PBOC. The common financial institutions, such as small urban banks, rural banks and financial companies, are evaluated by the local branches of the PBOC. However, the evaluation standards and the data system, such as interest rate pricing, are the same.

In terms of evaluation outcomes, the framework set three groups for the regulated banks: A for excellent (scores of 90 or more); B for qualified (scores of 60 or more but below 90); and C for unqualified (scores below 60). The MPA framework also

includes a reward-and-punishment mechanism. If a bank gets a high score of 90 or more — an A-level score — it can gain an extra 10 percent revenue of its reserve deposits' income at the PBOC. For example, the benchmark interest rate of a bank's reserve requirement deposit paid by the PBOC is 1.62 percent; if the bank gets an A evaluation in the MPA, its interest rate of reserve deposit will be $1.62 \text{ percent} \times (1+10 \text{ percent})$, or 1.782 percent. If a bank gets a score of less than 60 — a C-level score — it will be punished 10 percent of its reserve deposit interest rate, so $1.62 \text{ percent} \times (1-10 \text{ percent}) = 1.458 \text{ percent}$. Due to the very high requirement reserve ratio in China, 16.5 percent for large banks and 13.5 percent for small and medium banks, respectively, the reward and punishment are meaningful to the banks, especially since most of them have experienced significant problems, such as non-performing loans, since 2013. What is more, the outcomes of the MPA might have important impacts on banks' businesses, in particular the innovation applications and approvals.

Evaluation Categories and Indicators

The MPA is conducted through seven categories set by the PBOC. They are: capital adequacy ratios and leverage ratios; banks' assets and liabilities; liquidity conditions; pricing behaviour for interest rates; quality of assets; cross-border financing;

and execution of credit policy. Each category has a total possible score of 100 and includes two to three indicators with different weights. The qualified score for each indicator, category and the final outcome is 60. The final score equals the total score of the seven categories divided by seven. A couple of the indicators are referential items, and given scores of 100 during the current evaluation process. The MPA framework's 18 indicators have different weights, which can affect the results of the MPA. There are two veto items, the first and the fourth category. If any indicator in these two items fails to get qualified scores (at least 60), the bank will be put into the unqualified group (level C) in the MPA evaluation. The details of the seven categories are described below.

The first category, capital adequacy ratios and leverage ratios, is one of the two veto items. The indicators, including capital adequacy ratios (80 percent in weight), leverage ratios (20 percent in weight) and total loss-absorbing capacity (now zero percent in weight), are trying to contain risks through the capital buffer and credit expansion. With stricter standards than the new standards of the Basel Capital Accord III, the capital adequacy ratio of the MPA is divided into four parts: the statutory lowest capital (8.0 percent, higher than the minimum Tier 1 capital of Basel III); the capital conservation buffer; extra capital for systemically important institutions; and the discretionary counter-cyclical buffer. The discretionary counter-cyclical buffer mainly considers the broad credit expansion, which is often linked to the shadow banking or off-balance-sheet businesses and is directly related to the second evaluation category, banks' assets and liabilities. Based on the growth rates of the broad credit expansion, the counter-cyclical buffer might be over 2.5 percent, the ceiling level set by Basel III.

The second category, banks' assets and liabilities, which includes three sub-indicators — the growth rate of broad loans (60 percent in weight), the growth rate of entrusted loans (15 percent in weight) and the growth rate of interbank borrowing (25 percent in weight) — sets thresholds for the growth rates of a bank's assets and liabilities to prevent taking on too many risky assets, such as shadow banking businesses or short-run borrowing in interbank markets. The broad loans cover all kinds of loans, including loans to non-deposit financial institutions, bonds investments, equity and other investments, financial assets purchased

under agreements to resell, and so on. The PBOC evaluates the year-on-year growth rates of all types of broad loans by the end of each quarter.

Since January 1, 2017, the off-balance-sheet businesses, in particular wealth management products, have been formally calculated as broad loans. The off-balance-sheet businesses often had strong links with the shadow banking system and experienced an explosive boom in the last several years. The PBOC strengthened the MPA approaches to contain risks from a rapid acceleration of debts in the banking system.

The third category, liquidity conditions, covers three indicators: liquidity coverage ratio (40 percent), net stable funding ratio (40 percent) and reserve requirements (20 percent). This category encourages financial institutions to enhance liquidity management through using more stable financing resources and promoting the effectiveness of reserve management.

The fourth category, pricing behaviour for interest rates, is the other veto item. It aims to promote the rational pricing capacity and establish a sound market principle to avoid irrational competing deposits and/or short-run borrowings. This item includes two indicators. The first one is competitiveness behaviours, which require the banks to obey the self-regulated disciplines of the interbank markets and have no price monopoly, fraud, insider trading and irrational behaviours. The second one is the deposit pricing deviation, which appraises the deviation rate of one individual bank paying the interest rates of deposits compared with all banks' average interest rates of deposits. If a bank pays significantly higher interest rates to its deposits than its peers, it might get a lower score, or even an unqualified grade, in the MPA system. These two indicators are both 50 percent in weight. The interesting thing is that what constitutes the irrational behaviours will be decided by the PBOC or its local branches.

The fifth category is the quality of assets. This item, including the non-performing loan ratio and provision coverage (both 50 percent in weight), focuses on whether the quality of banks' assets have huge potential failures. The evaluation is based on the comparison of the banks' data in the same class and in the same region.

The sixth category, the risk of cross-border financing, has three indicators: the position of

foreign liabilities (60 percent), currency structure (20 percent) and maturity structure (20 percent). It is set to promote the management of cross-border financing, which is increasing rapidly and plays a greater role in China's banking sector. This category also pays attention to the self-discipline of the banks on their foreign exchange management.

The last category is the execution of credit policy. The two indicators, the execution of monetary policy (70 percent) and the usage of the PBOC's financing (30 percent), are set to improve the effectiveness and efficiency of the monetary policy transmission and to optimize the credit structures. The central bank pays significant attention to these areas to encourage financial inclusion. The PBOC believes such credit supplies are good to keep credit structures more sustainable.

Based on the analysis of the seven categories and the related indicators, it is clear that capital adequacy ratios, the growth rate of broad loans and the pricing behaviours in interest rates play an essential role in the MPA system. In the viewpoint of the PBOC, the capital adequacy ratios play a key role in counter-cyclical effects and financial stability. In the MPA system, the main variable that affects the counter-cyclical capital buffer, and then the capital adequacy ratios, is the growth rates of the broad loans, which focus more on the off-balance-sheet businesses and the non-standard investments in the banking system. The regulatory objectives in the interest rate pricing mechanism are to avoid disturbances in the interest rate market caused by irrational behaviours and to establish a sound market with effective allocation function.

Policy Improvements of the MPA

Compared with the previous regulation system, the MPA system has an updated regulatory concept and logic to reflect the dynamic responses of the regulatory authorities, the revolution of asset allocation and risk controls of the banking system, and the promotion of macroprudential regulation. What is more, the new system is a set of rules that pay more attention to the interconnectivity in the financial system, which has been regarded as one of the main roots of

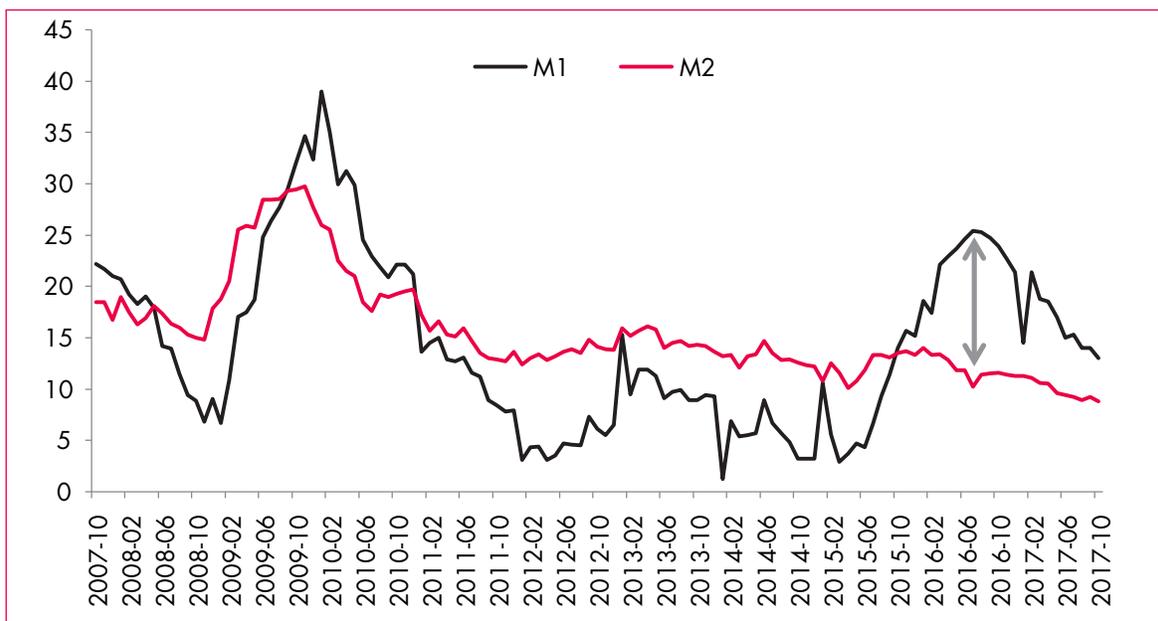
systemic risks after the global financial crisis. The macroprudential evaluation system and its supervisory measures have four important differences from the previous quantity-based regulatory system that relied on differential reserve requirements and consensus loan management.

Emphasis on the Counter-cyclical Capital Buffer

In addition to emphasizing the capital requirements, the MPA system also focuses on the counter-cyclical capital buffer. After the global financial crisis, the PBOC was eager to set up a system that has counter-cyclical effects, not only in monetary policies but also in financial stability policies. In the MPA system, the counter-cyclical capital buffer might be over 2.5 percent, the ceiling level set by Basel III, and it might be even higher than the minimum Tier 1 capital (6.0 percent) of Basel III. In reality, the counter-cyclical capital buffer in a few financial companies, for instance, special deposit institutions (or internal banks) in large enterprise groups that mainly provide deposit and loan services to the companies under the groups rather than the households and other enterprises, were even higher than 30 percent at the end of the first half of 2017. This means that with a higher counter-cyclical capital buffer, a bank can invest much more on good assets. The MPA system provides some flexibility to the financial institutions with a higher counter-cyclical capital buffer to pursue more assets, which might make the financial system less pro-cyclical. Meanwhile, the higher counter-cyclical capital buffer, without a ceiling limit, is good for banks to control their leverages.

Based on the former regulation approaches, it was very difficult for a bank to expand its balance sheet, even if it had very good assets and enough capital left after it had used up the planned credit quotas based on the consensus loan management. According to the consensus loan management principles, the banks would generally use up their full credit quotas every year in order to get the same, or even more, quotas in the next year without considering the quality of assets, which is very harmful to controlling the quality of the assets and the stability of the financial system. Under the new regulations, a bank with excellent management capacity on maturities and risks can expand its balance sheet further while a bank with low capacity needs to shrink its balance

Figure 4: The Gap between the M1 and the M2 Growth Rates



Data source: Wind.

sheet accordingly, because both groups of banks are not constrained by quotas in the MPA system. As a result, the financial system might be more flexible to business cycles and have more of the characteristics of counter-cyclical ability.

As for the counter-cyclical capital, it has been regarded as a very important instrument to keep the financial system stable. The G20 leaders (2008) required their finance ministers to formulate specific suggestions on how to mitigate pro-cyclicality at their meeting in Washington, DC, on November 15, 2008. The Financial Stability Forum (2009) and the Basel Committee on Banking Supervision (2010) also followed the instructions of the G20 leaders to strengthen the importance of counter-cyclical capital. However, there are still concerns about the pro-cyclicality of the financial system. One example is the dynamic provision mechanism in Spain. It was regarded as a practice to mitigate pro-cyclicality (World Bank 2009), but this mechanism still could not guard the Spanish financial system well during the global financial crisis and the European sovereign debt crisis. In China, following the logic of the G20 leaders, policy makers (Zhou Xiaochuan 2017) believe pro-cyclicality has been one of the most important elements and the first determined factor of systemic risks.

Evolution from Narrow Loans to Broad Loans

In the previous regulation system, the PBOC focused on total credit supply and the credit quotas of the banking sector. Since 2012, the lending of banks to non-bank financial institutions has experienced dramatic growth, while regulators have tried to control the loan supplies to specific fields, such as industries with surplus capacity, the real estate sector and the local governments. The banks and their non-bank partners allocated huge credits through many kinds of financial innovations. A great part of the so-called innovation was shadow banking businesses, or off-balance-sheet businesses. Under a separate regulation framework, regulators, including the PBOC, could not monitor and supervise them effectively through a credit quantity control system because many credits were not supplied through traditional loans but rather cross-sector financing. The shadow banking, or off-balance-sheet, businesses led to low efficiency of the monetary policy and an institutional mismatch between the mixed business model and the separate regulation system. The credits supplied by banks to households and enterprises have a very high correlation with the growth of broad money

(M2) (see Figure 4).⁸ However, the money lent by banks to non-bank financial institutions witnessed a divided tendency with the M2. By the end of 2016, banks' lending to non-bank financial institutions was in excess of ¥31.5 trillion, while the loans to the real economy were suffering very low growth, which is reflected by a lower growth rate of M2 than the targeted level, as well as an expanding gap between M1 growth rates and M2 growth rates. Here, M1 means the narrow money. The expanding gap between M1 growth rates and M2 growth rates implies the transmission of monetary policy might be less effective than before. As a result, it is more difficult for the PBOC to control its monetary policy based on the target level of M2.

The aggressive expansion of banks' assets in the name of financial innovation led to extremely high leverage, a main cause of the fragility of the real economy and the financial system. The macro leverage of China's economy was 247 percent and the leverage of the enterprise sector was 165 percent (Zhou Xiaochuan 2017). The leverage of the enterprise system is much higher than those of advanced countries. The MPA system promotes the supervision perspective from bank-focus logic to system-focus logic by shifting from narrow credit control to broad loan management to mitigate the institutional mismatch between the mixed business model and the separate regulation system.

Shift from Periodic Supervision to Routine Management

Under the old regulation framework, the PBOC set the total credit objective and the quotas, which generally would not change a lot. The PBOC and the CBRC supervised the banks' credit supplies according to the planned objective and the quotas by the end of each quarter. That was an *ex post* regulation approach. The sequence was that the demand for liquidity at the end of each quarter jumped up dramatically and the interest rates fluctuated, essentially due to the strong desire to keep in line with the consensus loan requirements. In the MPA system, the PBOC does not set solid credit supply quotas; the banks can adjust their credit supplies depending on the demands from

markets, the capacities to manage the risks and the capital buffers, including the counter-cyclical capital buffers. What is more, a new routine management approach is set to monitor the banks by the PBOC. The PBOC will check the credit supply situation and instruct the banks on how to match the demands better every month, rather than a one-time check at the end of each quarter. This is a halfway regulation approach. Under the new routine management method, the pressure of adjusting the balance sheet and pursuing the short-run financing at the end of each quarter will be relieved significantly, and the fluctuations of the markets would obviously be mitigated as the policy makers expect.

From Policy Benchmarks to Market-based Benchmarks

In consensus loan management, the credit quotas are very important for each bank and the interest rate is a key indicator for determining the incomes and profits. Before 2015, loans accounted for more than 80 percent of the total assets in the banking system. The amount of loans (the real factor is the loan quotas) and the spreads between deposit rates and lending rates are two fundamental elements in this spread-based business model. Both deposit rates and lending rates are decided or occasionally changed by the central bank depending on the situation of the real economy. However, the period between rate changes might vary from several months to a couple of years. As a consequence, the policy rates for deposits and loans — now the interest rate benchmarks in the financial system of China — lacked adequate flexibility and could not reflect the dynamics of the real economy. After the PBOC accelerated the liberalization of interest rates, the spread-based business model has experienced huge pressure because the costs of banks' liabilities increased very quickly. The value of policy rates for deposits and loans has decreased because the rates became less meaningful when non-loan assets evolved into a more and more important part of the banks' assets. The banks and other financial institutions need a new benchmark for the interest rates that can reflect the changing demands and market conditions in time. Meanwhile, the capacity in interest rate pricing and risk management based on a market-based mechanism has become the competitive advantage for the bank system, instead of a resource for the massive deposits and large borrowers, a dominant business model in China's banking system for the last four decades. The MPA

⁸ It should be noted that correlation is not the same as causation. The loans have been the dominant assets of the banking sector in China. The number of loans has been regarded a key element to determine the growth rate of M2 in China's monetary policy framework. Therefore, the central bank has controlled the loan amounts and the M2 growth rate, as intermediate targets, to realize its monetary policy objectives.

system focusing on interest rate pricing, with a veto item, aims to promote the banks' pricing capacity and avoid irrational behaviours in money markets. As a result, the end of the first quarter in 2017 was the most relaxed moment for the banking sector in the last several years (Zhang 2017).

Future Policy

The implementation of the MPA framework is just the beginning for the PBOC's attempt to establish a comprehensive system to deal with potential systemic risks. In the future, the PBOC will face more complicated policy circumstances when the global economy and the domestic economy suffer specific imbalances. The main task for the PBOC is to conduct a double-pillar policy framework combining the role of monetary policy with the function of financial stability.

Establish a Double-pillar Framework

The PBOC's policy system will eventually be a double-pillar policy framework combining the monetary policy and the macroprudential policy (Zhou Xiaochuan 2017). The establishment of the MPA system is the main project to build up a macroprudential framework for China's financial system. It is also the fundamental step for the PBOC to set up a double-pillar policy framework in the near future. In other countries, it is not typical to call such a policy a double-pillar framework. However, in the minds of China's policy makers, the Bank of England and the Federal Reserve System have introduced policies similar to China's double-pillar framework, which has two fundamental functions, monetary policy and financial stability.

Under the double-pillar policy system, the objective of the monetary policy, the first pillar, is to keep both economic growth and inflation on a stable track. Recently, China's economy continued to face an essential downward pressure because of the domestic and external imbalances. The PBOC will introduce a prudent and neutral monetary policy to stabilize the economy and the price level. The PBOC needs to pursue a trade-off policy framework to consider two relationships that might lead to dilemmas during policy decision

making: economic growth and financial stability, and internal balance and external balance.

In order to improve the efficiency of monetary policy, the central bank will promote the pricing mechanism of interest rates, in particular, the short-run rates. The fluctuating and too-high short-run rates (sometimes higher than yields of 10-year treasury bonds) is a negative factor for financial entities to manage their balance sheets and maturities. The supply of a reasonable benchmark of interest rates is as essential as requests of rational behaviours in interest rate pricing, a very important monitoring indicator of the central bank and a veto item in the MPA system.

As far as the foreign exchange rate is concerned, the distortion between the expectation of the RMB exchange rate and the relatively solid fundamentals is an obvious challenge for the PBOC. After introducing the counter-cyclical factor in the RMB foreign exchange pricing mechanism in May 2017, and thanks to the weak US dollar, the depreciation expectation of the RMB exchange rate has mitigated significantly, but might recur if the dollar booms again in the future.

The second pillar of the PBOC's policy framework is macroprudential policy. The PBOC's regulatory role, in particular, the responsibility for addressing the potential systemic risks and carrying out the macroprudential policy, was strengthened at China's fifth national finance work conference held on July 14-15, 2017. The goal of the macroprudential policy is to mitigate the pro-cyclical effect of the financial system and to avoid systemic risks, such as those resulting from cross-market contagion.

Policy coordination is a very important job related to the double-pillar framework for the PBOC.

Coordination between monetary policy and macroprudential policy within the central bank is a main goal. The debate about the relationship between monetary policy and macroprudential policy is a hot topic internationally. One of the important supporting ideas is that the PBOC has more comprehensive information about the financial system and the role of last resort, therefore, it can deal with the potential systems in a more effective and efficient way. According to IMF (2015) research, some actions, such as temporarily raising interest rates to attenuate financial risks, might be very costly, while the effects on financial stability through monetary policy remain uncertain.

Therefore, monetary policy generally should not be altered to contain financial stability risks. Former chair of the US Federal Reserve Janet Yellen (2014) also concluded that monetary policy has significant limitations as an effective instrument to protect financial stability and need not deviate from its primary objectives of stable inflation and full employment. It is still not clear how the PBOC will address these two sets of policies.

The success of the PBOC's policies depends not only on the capacity of the bank, but also on the effectiveness of policy coordination with other entities. It is not easy for the central bank to keep the financial system stable without cooperation and coordination with other regulators facing a very complicated financial system. The PBOC will enhance the cooperation and coordination with other regulators such as the three industrial regulatory authorities, the CBRC, the CSRC and the CIRC. Most importantly, China decided to launch the Financial Stability and Development Committee under the State Council at China's fifth national finance work conference. The committee, whose chairman is a vice premier of the State Council, tries to improve regulation cooperation and coordination from the ministerial level to the state council level.⁹ Somewhat similar to the Financial Stability Oversight Council of the United States, China's newly established committee would be the core coordinator for the regulators and be the entity exercising overall regulation of the financial system. The committee formally opened its business on November 8, 2017. Meanwhile, the Financial Stability and Development Committee under the State Council has set up a secretary office in the PBOC. The specific functions of the committee and the new roles of the central bank are still not very clear. However, the role of the PBOC in financial stability would be developed into a higher level based on the organizational arrangements of the new committee.

⁹ Coordination among the regulatory authorities and supporting infrastructure establishment, such as data collection and information sharing, were recommendations from the IMF and the World Bank in their FSAP report. The report also suggested China develop formal interagency cooperation mechanisms even a "permanent committee on financial stability" for a macroprudential framework (IMF 2011). In August 2013, China established the Financial Regulatory Coordination Joint Ministerial Committee (JMC) by the State Council. However, the JMC's efficiency and effectiveness of policy coordination and financial stability policy decisions need to improve, essentially due to its administrative, mandatory and operational limitations. The FSB further suggested China create a specialized subcommittee under the State Council (FSB 2015).

Address Systemic Risks

The global financial crisis illustrated the importance of having a sound framework based on macroprudential logic to respond to systemic risks. Although China's financial system did not suffer significant direct losses during the crisis, the real reason that China's financial system was insulated from the crisis was not a strong regulation system, but the capital control firewall. The capital control is the "last guardrail" for China's financial system (Yu 2016). Establishing a framework to address the systemic financial risk became a necessary task after 2012 when China's economic growth rate slowed down and the financial risks increased. What the Chinese government worries about most is the potential systemic risks that might erase decades of achievement of reform and openness.

The PBOC will further reform and develop its macroprudential assessment under the new double-pillar framework to combine stable inflation with financial stability. The responsibility of the central bank to deal with systemic risks was enhanced at China's fifth national finance work conference. The top leaders from the party central and the State Council requested the regulators, including the PBOC, hold the bottom line of no systemic financial risks. From the perspective of the PBOC, systemic risks are generated from structural imbalances of the real economy, low counter-cyclical capacity, inefficient financial sector governance and imperfect regulation mechanisms (Zhou Xiaochuan 2017). The typical potential systemic risks in China are the pro-cyclical effects and the cross-market contagions.

How to handle the cross-market contagions is one of the top reform priorities of the Chinese government in order to deal with the potential systemic financial risks. The mismatch of the mixed-business model and the separate regulation system might be a key problem to be addressed in the future. A possible policy recommendation is to reform the current "one bank, three commissions" regulation system¹⁰ and to build up one integrated regulation authority with a comprehensive functional financial regulation framework and an integrated financial infrastructure to supervise and regulate the whole financial system. The new integrated authority could be supervised

¹⁰ The one bank is the PBOC, the central bank of China. The three commissions are the three industrial regulators, the CBRC, the CIRC and the CSRC.

by the State Council or its Financial Stability and Development Committee and coordinate with the PBOC for financial stability policies.

Enhance Counter-cyclical Capital Function

Due to the importance of the counter-cyclical policy, the PBOC will further strengthen and modify the role of capital adequacy ratios in the financial stability framework. To some extent, capital adequacy is the bridge connecting the macroprudential policy and the micro regulation standards. The focus on the counter-cyclical capital buffer will constrain some banks' aggressive expansion, which failed to accurately consider the potential risks and pull down the expansion of the shadow banking businesses. Meanwhile, the sustainable credit services will be encouraged. Based on the capital adequacy management, the deviation of banks' behaviours from the central bank's policy would be mitigated in the future.

Modify Aggregate Management

Aggregate management is the main approach to the oversight of the financial system and will be strengthened in the future (Zhou Xuedong 2017). Aggregate management means all financial institutions and businesses should be included in the regulation framework and regulated in a macro and aggregate approach. The financial turbulences, such as the liquidity drought (2013), stock market crash (2015) and foreign exchange rate fluctuation (2015), have demonstrated that the regulators have not covered all businesses of banks and the related risks. The off-balance-sheet businesses, one part of broad loans without enough regulation, has only been put into the MPA framework since January 1, 2017, and it reflects the PBOC's objective to conduct an aggregate management framework. It is clear that the PBOC will pay more attention to the banks' total assets, asset structures and the related risks with a larger vision. The aggregate management is very helpful to monitor the cross-market businesses and deal with the mismatch between the mixed business and the separate regulation.

Promote Regulation Integration

Under the current regulation framework, the PBOC is responsible for monetary policy and macroprudential policy, while the CBRC, CSRC and CIRC take responsibilities for banking, securities and insurance regulation individually. That is China's separate regulation system. Without effective cooperation and coordination, and basic infrastructure such as the integrated data system, the current regulation system could not cover all behaviours of all financial institutions. The MPA system, to some extent, will be an integrated regulatory framework with macroprudential data from the PBOC and micro regulation data from the financial institutions. Most of the micro regulation information is the same as the data collected by the industrial regulators. As one of the central bank's objectives, the MPA framework is designed to be an approach to improving the extent of regulation integration. Based on the framework and its indicators, such as broad credit management, the PBOC can figure out the relationships between the banks and non-bank financial institutions. For example, a great part of the bank-trust cooperation businesses might be overseen under the MPA framework. The trust sector had total assets of over ¥24 trillion at the end of the third quarter of 2017 and ranked as the second-largest sub-sector in the financial system. The so-called "channel businesses," 49.8 percent of total assets, are actually mixed businesses with other sub-sector financial institutions, mainly banks.

After the establishment of the Financial Stability and Development Committee under the State Council, cooperation and coordination among the regulators will be enhanced. Asset management, one of the most popular businesses conducted by most financial sectors, such as banking, securities, insurance, trust and funds, with a total amount of about ¥60 trillion in the last several years (Li Chao 2016), has been regarded as a very risky field that lacks sufficient and integrated regulation in China's financial system. In the near future, the PBOC might set up a regulatory principle to improve the integrated regulation in asset management businesses based on a macroprudential perspective.

Conclusions

China's MPA system launched by the PBOC is an important policy practice in the field of macroprudential management, an essential policy promotion under the G20 framework. The MPA system, following the international regulation standards, considers the necessity of addressing the potential domestic financial systemic risks. Under the conditions of banks' diversified asset allocation and interest rate liberalization, the challenge of addressing systemic risks has been very tough for China. The current MPA framework focuses on seven categories and 18 indicators, which cover the most important regulation benchmarks and follow macroprudential perspectives. Based on the MPA system, the PBOC is trying to establish a double-pillar policy framework to coordinate monetary policy and financial stability. By introducing a counter-cyclical capital buffer, aggregate management on the broad credits, rather than loans, and stronger and higher-level regulation coordination, the central bank hopes to maintain the stability of China's financial system. Finally, in order to keep China's financial system stable and avoid potential systemic risks, more comprehensive reforms, such as an integrated regulation framework or entity, a unified information sharing system, and a sound policy coordination mechanism, are needed for China in the future.

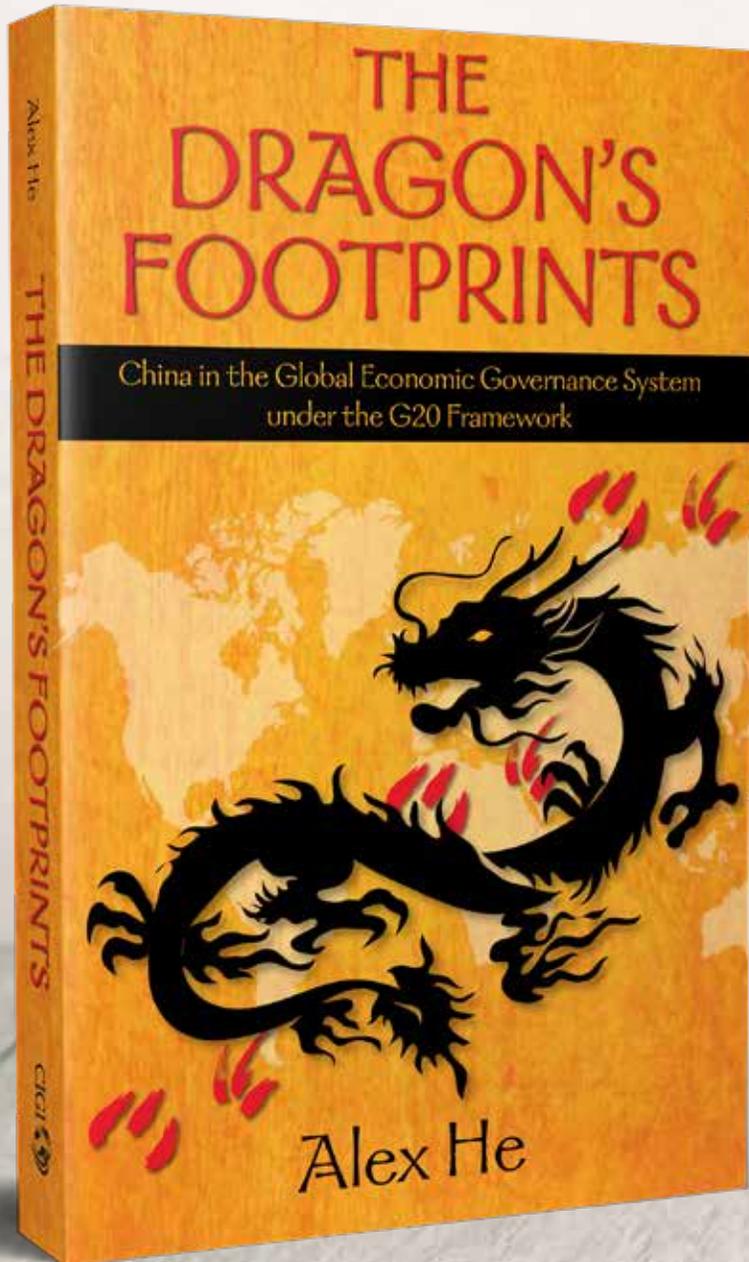
Works Cited

- Basel Committee on Banking Supervision. 2010. "Countercyclical Capital Buffer Proposal." July.
- FSB. 2015. "Peer Review of China." FSB. August 13.
- . 2017. "Global Shadow Banking Monitoring Report 2016." May 10.
- Financial Stability Forum. 2009. "Report of the Financial Stability Forum on Addressing Procyclicality in the Financial System." April 2.
- G20 leaders. 2008. "Declaration of the Summit on Financial Markets and the World Economy." November 15. Washington, DC.
- IMF. 2011. "People's Republic of China: Financial System Stability Assessment." IMF Country Report No. 11/321. November.
- . 2015. "Monetary Policy and Financial Stability." Staff Report, September.
- . 2017. "People's Republic of China: Financial System Stability Assessment." IMF Country Report No.17/358. December.
- Li, Bo. 2016. "Macro Prudential Policies and the International Regulation Reforms after the Global Financial Crisis." *China Business News*, February 5.
- Li, Chao. 2016. "Asset Management Businesses Are Lack of Integrated Regulation." Speech at Caijing Annual Conference, November 17.
- PBOC. 2010. *China Financial Stability Report 2010*.
- . 2015a. *China Monetary Policy Report*. Quarter Four.
- . 2015b. "The Instructions of Macro-prudential Assessment Framework." December.
- World Bank. 2009. "Dynamic Provisioning: The Experience of Spain." Public Policy Note No. 7. July.
- Yellen, Janet L. 2014. "Monetary Policy and Financial Stability." Speech at the 2014 Michel Camdessus Central Banking Lecture, IMF, Washington, DC, July 2.
- Yu, Yongding. 2016. *The Last Guardrail* [In Chinese]. Shanghai, China: The Eastern Publishing Co., Ltd.
- Zhang, Xiaohui. 2016. "How to Understand the Macro Prudential Assessment Framework." *China Money Magazine*, no. 7, July.
- . 2017. "The Macro Prudential Policy Practices in China." *China Finance*, no. 11, June.
- Zheng, Liansheng and Yang Xiaochen. 2016. "The MPA Framework and Its Implications on the Banking Sector." *The Chinese Banker*, No. 6, June.
- Zhou, Xiaochuan. 2017. "Explore the Double-pillar Policy Framework." Speech at 19th CPC National Congress press conference.
- Zhou, Xuedong. 2017. "Understanding of the Implementation of Macro Prudential Assessment." *China Finance*, no. 11, June.

CIGI PRESS

ADVANCING POLICY IDEAS AND DEBATE

cigionline.org



The Dragon's Footprints

China in the Global Economic Governance System under the G20 Framework

Alex He

Under the shadow of the global financial crisis, China's participation in the Washington G20 Summit in 2008 marked the country's first substantial involvement in global economic governance. China played a significant role in the global effort to address the financial crisis, emerging onto the world stage of international governance and contributing to global macroeconomic policy coordination in the G20 ever since.

The Dragon's Footprints: China in the Global Economic Governance System under the G20 Framework examines China's participation in the G20; its efforts to increase its prestige in the international monetary system through the internationalization of its currency, the renminbi; its role in the multilateral development banks; and its involvement in global trade governance.

August 2016

978-1-928096-23-8 | paperback

978-1-928096-24-5 | ebook

About CIGI

We are the Centre for International Governance Innovation: an independent, non-partisan think tank with an objective and uniquely global perspective. Our research, opinions and public voice make a difference in today's world by bringing clarity and innovative thinking to global policy making. By working across disciplines and in partnership with the best peers and experts, we are the benchmark for influential research and trusted analysis.

Our research programs focus on governance of the global economy, global security and politics, and international law in collaboration with a range of strategic partners and support from the Government of Canada, the Government of Ontario, as well as founder Jim Balsillie.

À propos du CIGI

Au Centre pour l'innovation dans la gouvernance internationale (CIGI), nous formons un groupe de réflexion indépendant et non partisan qui formule des points de vue objectifs dont la portée est notamment mondiale. Nos recherches, nos avis et l'opinion publique ont des effets réels sur le monde d'aujourd'hui en apportant autant de la clarté qu'une réflexion novatrice dans l'élaboration des politiques à l'échelle internationale. En raison des travaux accomplis en collaboration et en partenariat avec des pairs et des spécialistes interdisciplinaires des plus compétents, nous sommes devenus une référence grâce à l'influence de nos recherches et à la fiabilité de nos analyses.

Nos programmes de recherche ont trait à la gouvernance dans les domaines suivants : l'économie mondiale, la sécurité et les politiques mondiales, et le droit international, et nous les exécutons avec la collaboration de nombreux partenaires stratégiques et le soutien des gouvernements du Canada et de l'Ontario ainsi que du fondateur du CIGI, Jim Balsillie.

**Centre for International
Governance Innovation**

67 Erb Street West
Waterloo, ON, Canada N2L 6C2
www.cigionline.org

