



**DISCUSSION
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**AN INSTITUTIONAL CHANGE APPROACH TO
THE CHINA BANKING REFORMS (1949 TO 2019)**

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An Institutional Change Approach to the China Banking Reforms (1949 to 2019)

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[Abstract] China took 70 years to reform, liberate and modernize its banking system. Using an institutional change approach, the author examined the institutional arrangement changes, their implications on financial innovation, regulatory dialectics, technological development, financial and social stability. Specific discussion was devoted to the impacts of FinTech movement, market, interest and financial liberalization. Finally, the interoperating of multi-players in the new branchless banking ecosystem was explained through decoupling of roles and influences devoted by various institutional actors.

Key words: Banking Reform, Financial Liberalization, Institutional Change, Economic Growth, China

China's banking reform started since the establishment of the People's Republic of China (PRC) in 1949. After 70 years of transformation and globalization, China's banking system has become significantly important in the global financial system with the internationalization of Renminbi and the role of Chinese banks in international trade, finance and regional funding such as Asia Infrastructure Investment Bank (AIIB). However, there are limited studies on China's banking reform using an institutional field approach. Most of the literature on China's banking system only describe the nature and timing of reform, confrontations with foreign banking, influences from governments, and issues relating to inefficiencies in State-owned banks. Some critical issues still need to be studied. For example, what kinds of institutional arrangements and changes have been evidenced in China's banking system? Why are certain institutional changes more sustainable than others? How are institutional changes initiated, adopted, diffused and collectively acted upon by key players in the industry?

This paper begins with a synopsis of the institutional change events, actors and implications in China banking reform in the early stage (1949 to 1997). Section 2 examines the development of China's banking reforms in the modern economy (1998 to 2020). Section 3 focuses on the FinTech development in China over the last 20 years, and Section 4 discusses the FinTech implications on the China's banking reforms

process. Section 5 discusses various financial liberalization reforms in China and their impacts to China's economy development. Section 6 gives a brief summary and some thought-provoking questions for future study.

1.0 Early Stage of China's Banking Reform (1949 to 1997)

When the PRC government formed in 1949, China adopted a centrally planned economy, with most of the socio-economic activities under the plan and control of the new government. The new government ruled out the capital allocation process, including the production plan, labor and product markets. Most commercial activities were in the tight hands of SOEs, which focused on realizing the new government's socio-economic plans. During that period, social equality and benefits prevailed individual wealth maximization.

Between 1949 and 1977, PBOC, the only bank in PRC, was responsible for both central banking and commercial banking operations (a mono-bank model). PBOC was an administrative department of MOF, which exercised firm control over all financial services, credit and money supply (Gao, 2012). PBOC essentially combined the roles of the central bank and commercial banks and its operation was subject to strict cash and credit plans set in accordance with the production plans projected by the State Planning Commission (Jiang and Yao, 2017). A few state-owned banks were established during this period without challenging the dominant status of PBOC. These banks passively collected household savings and channeled funds to serve the state's centrally planned production projects. Their operations were driven by government goals and resultant needs rather than profit maximization, and as a result, normal commercial banking functions such as risk management and project selection were largely ignored. During this period, the banking system played only a limited role in promoting economic growth (Yang, 2002).

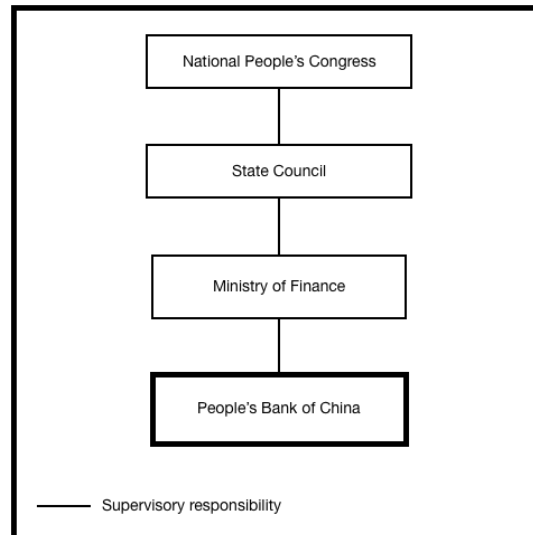


Figure 4- 1 China's mono-bank system (1949-1977)

Source: Author's analysis

The period between 1978 and 1993 was a period of reform from the planned economy to the market economy. The Chinese Government began to recognize the importance of private economy, first as a “complement” to the state sector (1988) and then as an “important component” (1999) of the socialist market economy (Brandt *et al.*,2008). While individual rural credit cooperative institutions, such as Rural Credit Cooperatives (RCCs) and Urban Credit Cooperatives (UCCs), were relatively small, they collectively played a big role in China's rural banking market. RCCs were often more inclined to fund projects with lower risks and higher capital returns. This exacerbated an existing shortage of institutional lending in rural areas (Guo and Jia, 2008). By 1994, the institutional restructuring of China's banking system was completed. The two-tier banking system took shape, dominated by state-owned specialized banks, along with Joint-Stock Commercial Banks (JSCBs) and many UCCs and RCCs, as well as newly established state-owned policy banks (Jiang and Yao, 2017).

However, banking reform in this period failed to transform the policy-driven banking system into a market-oriented system. Competition was increased but insufficient. The banking system remained as policy-driven, and the role of state-owned specialized banks became rather vague and contradictory. State-owned banks were officially expected to be profit-driven institutions, while banks' operations were frequently intervened by the central and local governments. These banks, as before, were governmental agencies to help implement production plans formulated by the state and regional planning commissions. This policy-driven banking system extended loans

to SOEs to fulfill the national and regional production plans and maintain employment, regardless of profitability. About two-thirds of SOEs were loss makers during this period of economic transition, and the banking sector accumulated a huge amount of non-performing loans (NPLs). These NPLs and losses were regarded as the costs of institutional transition of the economy and the state was expected to clean up. Thus, state-owned specialized banks were implicitly guaranteed by the government and enjoyed a soft budget constraint when SOEs were increasingly subject to hardened budget constraints. Commercial banking practices and skills, such as risk management, were hardly developed due to the prevalence of policy lending practice (Jiang and Yao, 2017).

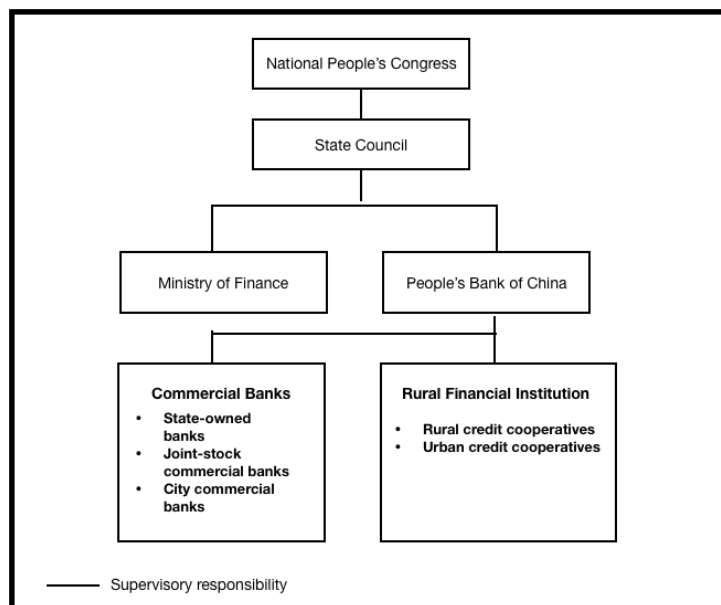


Figure 4- 2 China’s two-tiers banking system (1978-1993)

Source: The author’s analysis

The period between 1994 and 1997 represented a new era (the Open Door policy era) in China’s history known as “socialism with Chinese characteristics” and the “Reform and Opening-up” (改革开放) to the outside world. However, reform was always confronted with resistance. The issues of unproductive and loss making SOEs became serious. By the end of 1994, more than 50% of the approximately 110,000 SOEs in China had been running at a loss. In the same year, direct subsidies to such SOEs amounted to the equivalent of US\$ 4.7 billion, or 60% of China’s budget deficit. The implementation of the “Open Door policy” had also resulted in an influx of foreign

capital into China. In 1994 alone, the contracted foreign investment amounted to US\$81 billion, with actual investment for the year reaching US\$33.7 billion.

Since 1996, the financial organizational system gradually got improved; SOCBs were transformed into modern financial enterprises through a series of “shareholding reform activities”. As a result, over 120 shareholding medium and small-sized commercial banks were set up or reorganized, and securities and insurance financial institutions were further standardized and developed (Allen *et al.*, 2007). To reduce reliance on the central funding model, the government began transforming state-owned “specialized banks” into state-owned “commercial banks” through a series of reforms and commercialization activities. Since the mid-1990s, City Commercial Banks (CCBs) were created by a way of restructuring and consolidating UCCs. CCBs served mainly SMEs and collectives as well as residents within their geographical localities. CCBs adopted a share-holding ownership structure and capital was provided by urban enterprises and local governments. In the meantime, RCCs were restructured into independent financial institutions. The government wanted to completely mitigate the political interference in the banking system, however the reality was that the government intervention and influence were still very strong in the capital allocation process (Li, 2013). Because of the lack of a branch network and capital, policy banks had insufficient service and lending capacity and hence were unable to meet the need for policy lending previously provided by the four state-owned specialized banks. Besides, the government had the right to appoint senior managers for the local branches of PBOC (as well as SOCBs). As such, governments had the power to force banks to lend according to their preferences, and government intervention in SOCBs operations was common at that time (Jiang and Yao, 2017). Consequently, SOCBs were often under the pressure from both the central and regional authorities to make loans to their preferred sectors and enterprises. That led to the deepening of state-owned bank reform in the next stage (Li *et al.*, 2013).

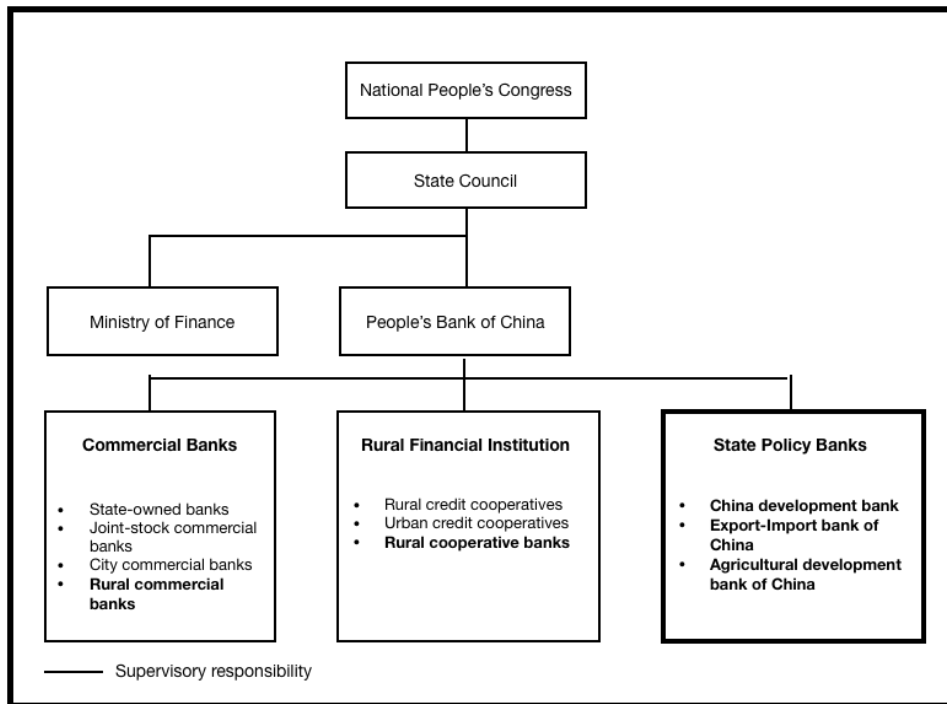


Figure 4-3 China's three-tiers banking system (1994-1997)

Source: The author's analysis

2.0 Modern Stage of China's Banking Reform (1998 to 2020)

Between 1998 and 2002, notwithstanding the economic turmoil (Asian financial crisis 1998) and politics transition (return of HK in 1997 and Macau in 1999) in the late 1990s, China maintained an average growth rate of 9.7% a year over the two decades up until 2000. China's ability to pull through the times of hardship was owed to the state's overall control of the economy by active intervention to stimulate demand through wage increase in the public sector. While foreign direct investment (FDI) worldwide halved in 2000, the flow of capital into the Chinese Mainland rose by 10%. As global firms scrambled to avoid missing the China boom, FDI in China further rose to 22.6% in 2002. Meanwhile, the government was also struggling to modernize and privatize SOEs without inducing massive urban unemployment. The export of Chinese goods increased due to low pricing and improved quality. Meanwhile, domestic consumer spending was boosted, in a large part, due to longer workers' holidays. Along with the rapid economic development, the revamp of regulations for the stock market

and accession to the World Trade Organization (WTO) caused foreign capital to pour into the country (Brandt *et al.*, 2008).

In the late 1990s, it became obvious that political lending was still pervasive, leading to very high proportions of NPLs in big four banks. In fact, most state-owned banks were technically insolvent. As the Asian Financial Crisis developed, the Chinese government advocated a series of additional reforms of state-owned banks to ensure financial safety. In 1998, MOF recapitalized the Big Four banks by issuing USD 32.6 billion of 30-year special government bonds and using the proceeds to enhance the banks' capital adequacy ratios. One year later, China's government established four asset management companies, aiming to take over the bad assets of the Big Four banks and China Development Bank (Gao, 2012).

In 2001, PBOC and CBRC started to take an active role to reduce NPLs proportion and balance by introducing preventive and corrective measures such as five-category assets classification for bank loans, development of a financial regulatory system, reforms of the SOCBs and RCCs (Li, 2013). Despite the many reforms made at this stage, banks were still confronted with many problems, especially capital constraints. Bridging the funding gap was a constant challenge and the capital supplemented by MOF was only temporarily sufficient. Despite multiple recapitalizations, banks were quickly becoming, once more, undercapitalized. The culprit, as before, was the high proportion of NPLs, which analysts attributed largely to political interference with the lending process. Perversely, every round of government-led recapitalization led to a banking system even more closely tied to the political class. Clearly, government-led reforms in the banking sector had not been fully successful; government ownership was still leading to political interference in the capital allocation process, despite the various attempts at reform. It soon became clear that, to survive, China's banking sector had to be transformed into a modern banking system. The government had to impose governance reforms, while at the same time protecting the banking sector from the deleterious consequences of political interference and oversight (Gao, 2012).

At the end of 2004, the total assets of foreign financial institutions in China reached over US\$47 billion; foreign banks were allowed to handle RMB business in 16 areas, and 62 foreign banks from 19 countries and regions set up 191 business institutions in China, of which 116 were approved to handle RMB business. There were 211 foreign bank branches in China. Meanwhile, China's commercial banks had all set up branches

overseas and started an international credit business. Bank of China (BOC) ranked first in the number and scale of overseas outlets. Financial firms in China will have to upgrade their products to survive in the competition in both domestic and overseas markets (Lu *et al.*, 2005). China's domestic banks needed to be more proactive in devising and implementing strategies to accelerate their product and service innovation process, in particular e-banking products and services. However, lack of regulatory and supervisory procedures for sophisticated financial products, limitations in talent and capability to develop technology infrastructure at a compatible pace with China's financial development needs, and low acceptance of advanced financial products by the conservative Chinese community in general (Zhao *et al.*, 2008) held back financial innovation during this period. China's banking system was not ready yet and simply needed more time.

At this stage, the financial industry was experiencing a “diplomatic tug-of-war” between regulation and innovation. Direct competition and the influx of foreign international banks into the Chinese market required domestic banks to become more innovative and efficient to secure their market shares. As a result, domestic banks started asking for “favorable policy” from the regulators for space and time to compete with the more sophisticated foreign counterparts. The “diplomatic tug-of-war” between domestic and foreign banks also reflected the “dialectics” between regulation and innovation. The regulators, state banks, private banks and foreign banks were confronted with regulatory dialectics in redefining the new banking model that needed to be more risk-resistant and pro-innovation.

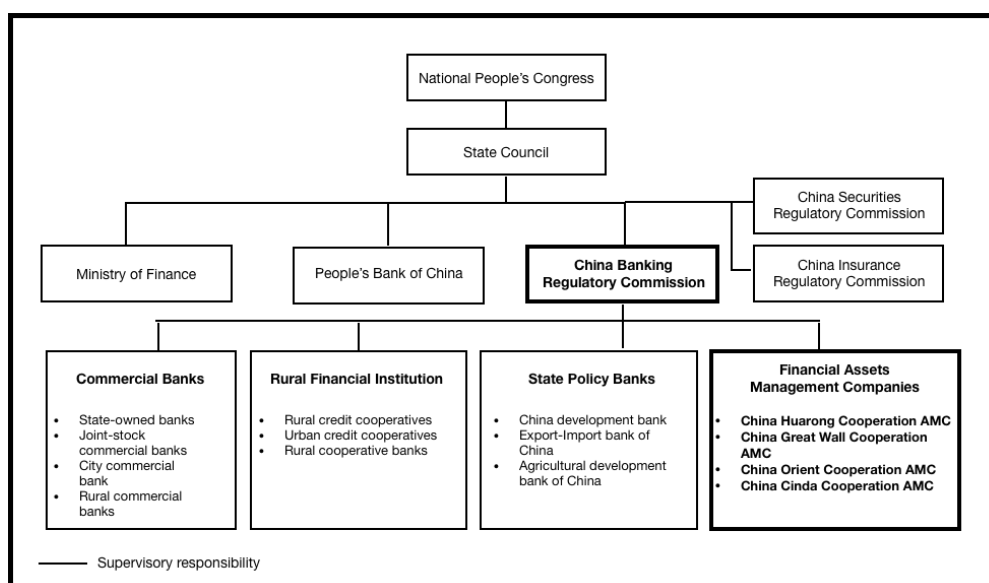


Figure 4-4 China's three-tiers banking and AMC systems (1998-2002)

Source: Author's analysis

Between 2003 and 2007, the high-speed growth and contribution from private sector continued to expand. The GDP growth rates from 2003 to 2005 were at around 10% per year and domestic private sector contribution exceeded 50% of GDP after 2005. In 2008, China became the largest economy in Asia and the second largest worldwide. However, some state monopolies remained in such sectors as petroleum, telecom and banking. The government adopted more egalitarian and populist policies. It increased subsidies and control over the health care sector, halted privatization, and adopted a loose monetary policy, which led to rapid increase in property prices. The privileged state sector continued to receive government investment and low-cost financing, under the “national champions” and “go abroad” policies to compete with foreign large corporations. Incentives were also given to promote high-tech industry and R&D (Brandt *et al.*, 2008).

In terms of banking modernization, to improve the safety, soundness and strength of local banks, at the end of 2003, CBRC stipulated a 20-25% principle whereby an individual foreign bank could hold a maximum of 20% shareholding in the stock of a local bank, and the total holdings of foreign banks in any local bank must not exceed 25%. Based on this regulation, numerous foreign banks acquired shares in local banks. The policy was known as “introducing foreign strategic investors (FSI) to Chinese banks.” By the end of 2007, 25 Chinese commercial banks had formed partnerships with 33 foreign institutional investors, with a total foreign investment of US\$21.25bn. The government was expecting foreign bank entry policy to yield benefits in terms of capital injections, introduction of management expertise and corporate governance improvement for Chinese banks (Shen *et al.*, 2009). Foreign banks investment in China were primarily motivated by resource seeking and market seeking, specifically, the higher GDP growth of China's large banking market and local resources of Chinese banks, such as distribution networks and local customer base. Chinese banks were motivated to attract foreign strategic investors primarily to seek resources, specifically, getting access to foreign banks' intangible resources, such as advanced management skills, professional techniques on organizational restructuring, IT system design and product development (Li, 2013).

At this point of time, banking governance and governmental interference were still two major unresolved issues. The Big Four banks, whose combined asset accounted for 70 % of China’s banking system, remained the top concern and priority in the national economy. Problems generated by NPLs and deteriorating asset quality threatened to impede economic development. Hence, the government decided to further deepen bank reform by focusing on improving the governance of state-owned banks. The process of reform involved four steps: restructuring, recapitalization, introduction of one or more strategic international investors, and public listing (Gao, 2012).

At this stage, China’s financial industry was in the “external-driven innovation process”. External factors (public listing, market competition and regulatory reform) pressured China’s commercial banks to innovate and operate efficiently in order to survive in China’s new economic and regulatory framework. In this stage, foreign banks and capital markets played a key role in modernizing the banking institutional framework in China.

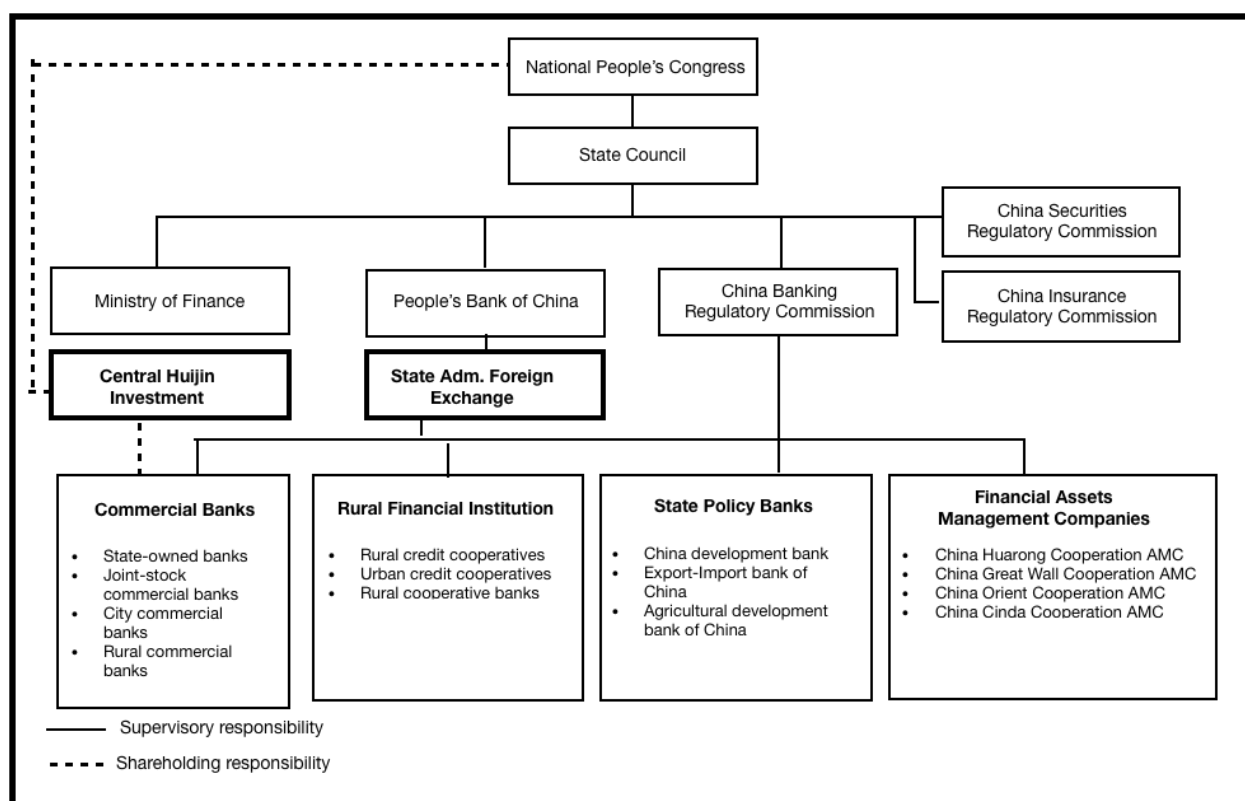


Figure 4-5: China’s modern banking system with foreign interest (2003-2007)

Source: Author’s analysis

The period between 2008 and 2012 was the stage of endogenous-driven institutional modernization for China's banking system. The 2008 US subprime mortgage crisis led to the widespread collapse of a series of large financial institutions. Investors in Asian countries were suffering significant financial loss following the slowdown of the US and European economy and increase in unemployment rates resulted in a sharp decrease in purchase orders to developing countries such as China. To stop the decline in export orders, in 2008 the Chinese government introduced a four trillion yuan (USD 600 billion) economic stimulus package in the forms of tax incentives and expenditures on public facilities and services. The stimulus successfully prevented a dramatic fall in GDP growth in 2009 and provided a sustained recovery in 2010, when the real annual GDP growth rate rose to 10.4%. In addition, a series of reforms of regulatory system and economic policies were also introduced to enable the Chinese economy to steadily achieve "soft landing" (cooling down the real-estate overheat in China by introducing housing loan controls) and prevent China's banking system from repeating the mistake (strengthen regulations over financial innovation process).

Most new loans were provided to large SOEs, which then invested money in the real estate market, triggering fears of a new real estate bubble. Another emerging issue was the potential bad loans produced by municipal government financing vehicles. Municipal governments were not allowed to issue bonds or borrow loans from banks, so many of them set up their own financing vehicles to borrow from state-owned banks. Presently, it was estimated that nearly 1/3 of the loans to municipal entities might be at risk of default in the near future (Gao and Fotak, 2010).

As US and Europe economy began to slump, the world economy engine switched to Far East region. Many wholly foreign-owned banks were established in China during the period from 2008 to 2012, mainly attributed to the openness of the financial sector and increasing financing & investment demands in China. By the end of 2011, 181 banks from 45 countries and regions had had presence in China. The profits of China's 181 foreign banks more than doubled, from RMB 7.78 billion in 2010 to RMB 16.73 billion in 2011. Meanwhile, total assets grew by 24% to RMB 2.15 trillion in the same period. This significant growth was achieved because of strong demand for corporate credit from multinationals expanding within China and an increasing number of state and private-owned enterprises customers. Despite China's subdued economic outlook,

foreign banks nonetheless predicted an annual revenue growth rate of 20% or more until 2015 (PWC, 2012). The exponential growth in the number of high net worth individuals in China also caused some foreign banks to renew and develop their retail and wealth management businesses. The continuing internationalization of the Renminbi and interest rate reform created currency exchange and arbitrage with treasury management opportunities among Chinese export and import companies (PWC, 2012).

At this stage, the regulators were faced with issues including financial globalization, innovation, mixed-operation, and post-crisis recovery. In 2006, CBRC issued guidelines to encourage and regulate financial innovation by commercial banks. CBRC also issued a series of rules concerning derivatives trading, electronic banking services and financial consultation for individuals. Sixty-two commercial banks were authorized to trade derivatives in China with total turnover reaching 14 trillion yuan in 2005 (Li, 2013). In order to promote financial innovation, the government adopted a tolerant attitude toward risks caused by financial innovations and continuously improved the concerned regulations at the same time. The “endogenous-driven innovation process” required the domestic commercial banks to structurally change, such as setting up innovation departments at both HQ and branches, adopting financial innovation development and approval process, and providing sales support to new financial products. In 2013, the non-interest income of BOC, for example, represented 36.50% of the total operating income, an increase of 6.67% compared to 2012. At this stage, foreign banks and other financial institutions such as trust, leasing and financing companies, collectively played a key role in modernizing China’s banking institutional framework.

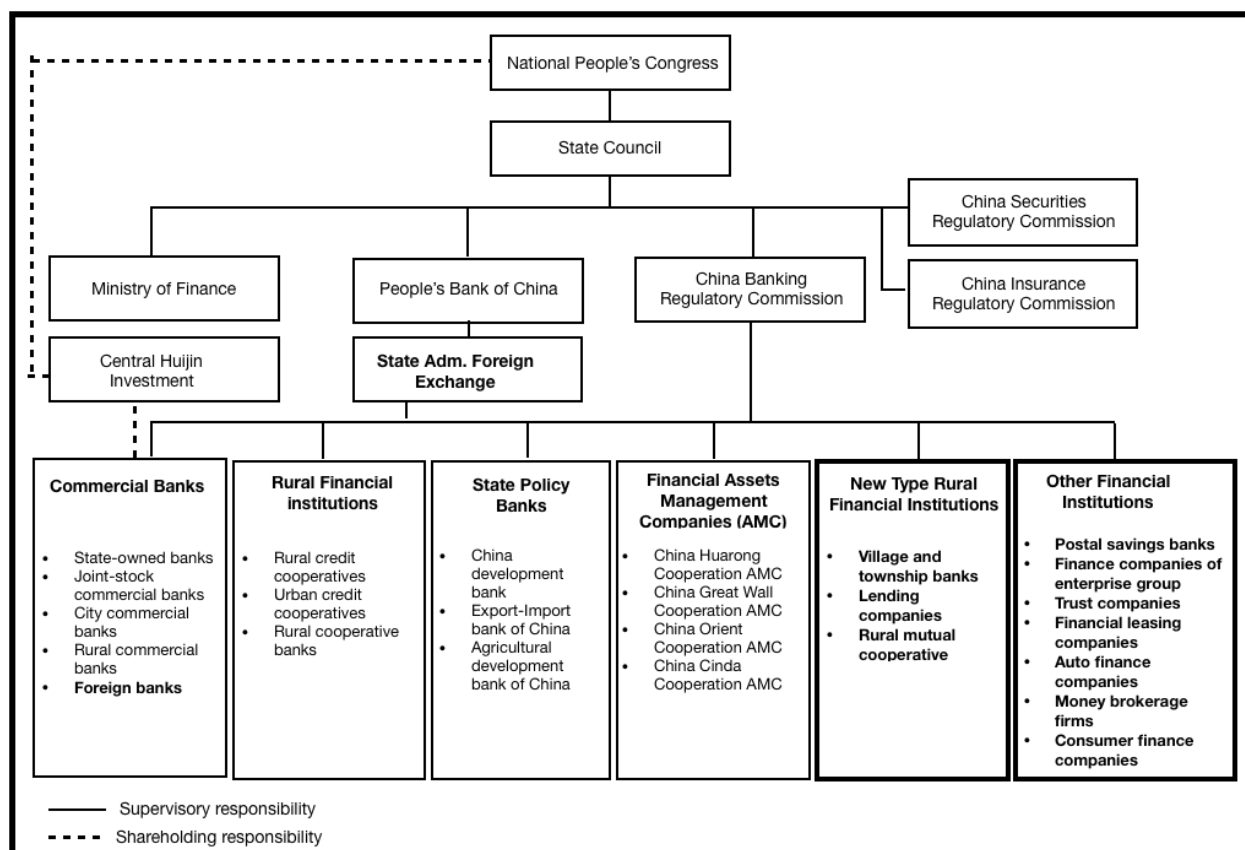


Figure 4-6: China's modern banking system with diversification in forms and interests (2008-2012)

Source: The author's analysis

Between 2013 and 2020, China's banking system was in the stage of institutional integration driven by FinTech and financial system liberalization. During the period from 2005 to 2011, China's banking industry experienced tremendous growth in revenue and profitability, with compound annual growth rate being 20% and 29% respectively. This was resulted from consistent high net interest margin (2-3%), double digit GDP growth and rapid expansion of bank branches. Proportion of revenue from banking intermediary business increased from 17.5% (2005) to 19.3% (2011). After several rounds of restructuring (capital injection and bad asset separation), the NPL ratio of Chinese banks reduced from 17.8% (2003) to 1% (2011). However, along with the interest rate and Renminbi liberalization pressures, the previous high-growth model of Chinese banks was no longer sustainable. The risk capital requirements and E-commerce popularity in China forced the Chinese banks to look for a new model of online banking growth, rather than capital-intensive physical expansion, to further optimize its revenue structure and profitability (Li, 2013).

The Third Plenary Session of the 18th Central Committee of CPC (2013) adopted the Decision on Major Issues Concerning Comprehensively Deepening Reforms (the “Decision”). The Decision covered a wide range of reform issues related to SOEs, the private sector, financial system, fiscal policy, rural land reform and urbanization, market access, foreign investment and environmental regulation. The Session emphasized the importance of the role of market and the role of the government. While placing more emphasis on market forces, the financial reforms included further opening the financial sector both inwardly and outwardly, establishing privately-owned small banks, increasing the prevalence of direct finance, improving Renminbi exchange formation through market forces, accelerating interest rate liberalization and Renminbi capital account liberalization, developing a deposit insurance scheme and improving financial institutions’ market exit mechanism (NRI, 2014b). Based on the above, the key to financial system reform proposed by the Session were “liberalization” and “market-orientation”.

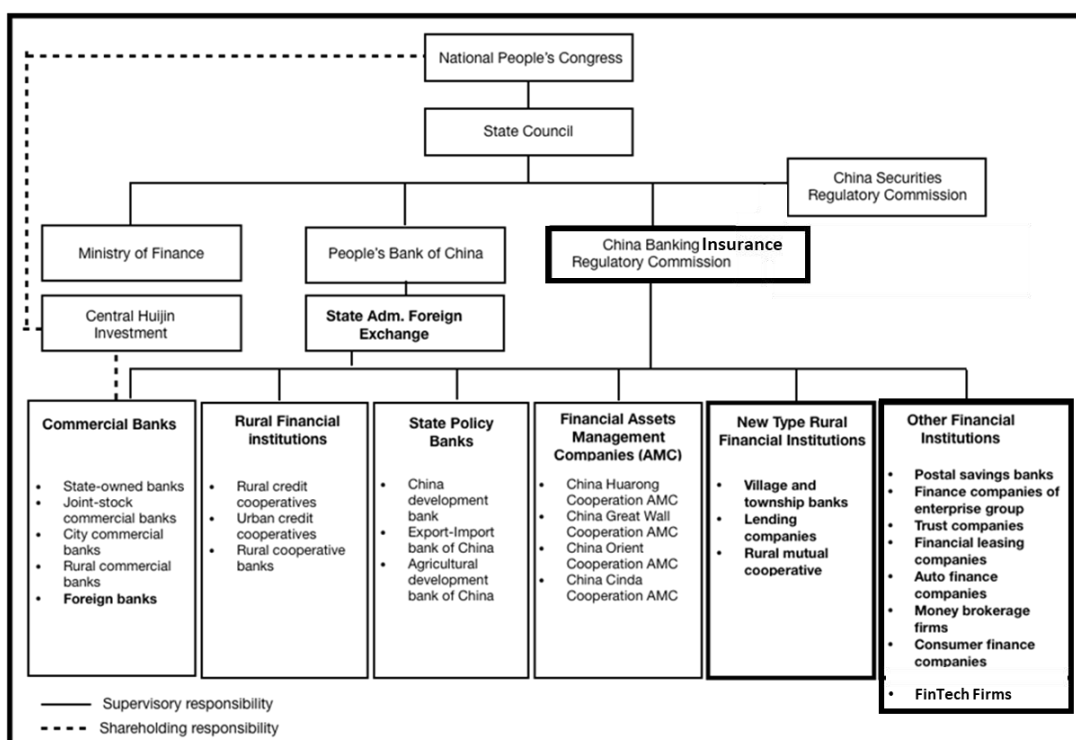


Figure 4-7: China’s modern banking system with FinTech and converged supervision of CBIRC (2013-2020)

Table 4-1: CPC Central Committee’s Decision on Major Issues Concerning Comprehensively Deepening Reforms

Key points regarding financial market reforms

- **Open up the financial sector further both inwardly and outwardly. Authorized establishment of small private-owned banks and other financial institutions that meet certain conditions. Reform policy financial institutions.**
- **Optimize multi-tier financial market structure. Reform equity issuance registration system. Promote equity finance via multiple channels. Develop and regulate bond markets. Increase the prevalence of direct finance.**
- **Improve Insurance's economic compensation mechanism. Develop mega-disaster insurance scheme.**
- **Develop inclusive finance.**
- **Encourage financial innovations. Diversify financial market strata and products.**
- **Improve Renminbi exchange rate formation mechanism through market force. Accelerate interest rate liberalization. Improve the government bond yield curve to better reflect the market's supply-demand balance.**
- **Open up capital markets both inwardly and outwardly. Further liberalize cross-border capital and financial transactions.**
- **Establish and optimize a regulatory system for external debt and capital flows under a macro-prudential regulatory framework. Accelerate Renminbi capital account liberalization.**
- **Steadily implement financial regulatory reforms and moderation standards. Improve regulatory coordination. Clarify financial regulation and risk mitigation responsibilities between national and sub-national governments.**
- **Develop deposit insurance scheme. Improve financial institutions' market exit mechanism.**

Source: NRI 2014b, based on CPC Central Committee's Decision on Major Issues Concerning
Comprehensively Deepening Reforms

3.0 Key FinTech Developments in China

FinTech opened a new line of business and a new source of income to many major Internet companies or traditional financial institutions. Given the large size of the financial industry in China, Internet banking could mean a huge long-term profit base. Major Internet companies such as Alibaba, Tencent and Baidu were at an advantage as

they have a large and sticky user-base, high volume traffics, proven service infrastructure, market reputation and innovative/evolving business model. Among financial institutions, Ping An Group (private-owned listed bank) was probably the best positioned to take advantage of the trend, given its early participation in the P2P lending market through its subsidiary Lufax (Credit-suisse, 2014). The following sub-sections explain the institutional changes in this stage (2013 to 2020) using the case studies of P2P lending, mobile payment and online financial product distribution platform in China.

3.1 Peer-to-Peer (P2P) Lending in China

The liquidity crisis and real-estate boom caused the tightening of lending criteria by the banks, which forced small borrowers to turn to alternative channels for credit. Originating in the UK, online P2P lending services refer to the provision of an online platform that enables lenders and borrowers to deal directly with each other, without the need for a middleman (Wang, 2013). Online P2P lending services quickly developed in China. By the end of 2012, more than 200 P2P lending platforms had been established and the balance of loans from online P2P lending services had approached RMB ten billion, with the number of investors exceeding 50,000. Compared with the traditional financial industry, the P2P industry had a smaller base size but an annual growth rate of over 300 %. The P2P lending institutions showed that the number of P2P institutions increased from nine in 2009 to 132 in the first quarter of 2013 and there was a higher concentration in the coastal regions. The transaction volume of the 21 most active ones out of these 132 P2P lending platforms was below RMB 10 million in 2008 but reached RMB 1.03 billion in 2011, and then in 2012, the annual turnover of these 21 platforms reached RMB 10.413 billion. In terms of the lending rate, the annualized nominal interest rate of P2P lending institutions stayed 12%- 22% and 60% of the loans were used as working capital (Chinese Business News , 2013).

Innovation always comes with risk management. Since there was no central credit system in China and credit information was not shared across platforms, default occurred when one user borrowed from multiple platforms. Many P2P platforms had over RMB 1.5 million bad loans. After that, some P2P operators started the model of online borrowing and offline lending to local borrowers. Such a way could ensure a

detailed inspection of the borrower, including the usage of fund, source of payback and collateral. Although credit risks reduced, still some four to five large platforms were closed due to some large defaults. In 2013, P2P founders were able to buy the framework on Taobao (e-commerce platform in China). Suddenly, the number of P2P platforms grew from 240 to 600. Online trading volume reached RMB 20 billion, nine times larger compared to 2012. China became the biggest P2P lending market, with 90,000 to 130,000 online investors. From October to December 2013, 74 platforms went bankrupt with owners absconding or restricting investors from withdrawing funds. RMB 300 million was involved, which was three times higher than the total volume of previous defaults. In 2013 alone, over 200 P2P platforms were closed due to massive amount of default (Chinese Business News, 2013).

In the first six months of 2014, P2P loans outstanding at 30 June 2104 totaled RMB 47.7 billion. Some P2P lenders were essentially loan sharks that utilized the Internet to access funding. Some scaled up their operation via telephone sales and started competing with incumbent microfinance companies. Some P2P lenders started to form alliances with microfinance companies using the P2P funding model and lending know-how. This turned P2P platform from “facilitation of micro-financing” into potentially “illegal fund-raising and shadow banking”. P2P lending circumvented the PBOC restrictions on bank lending to finance local government and real estate development projects. Given the large amount of cash flows through the P2P channel, questions started to rise on whether P2P online financing also required banking license to get deposit from public and regulatory authorities’ approval to provide principal guarantees to investors (NRI, 2014a). In short, the online financing industry faced the lack of a clear regulatory framework, market entrance requirements and industry operation standards, resulting in an explosive risk to the banking industry and financial stability.

On the positive side, P2P lending had the potential to alleviate SMEs’ chronic funding difficulties. SOCBs have to allow the principle of “value preservation and appreciation of state-owned assets”, which to some extent forced the Big Four banks to only serve large state-owned companies and provincial government projects. SMEs could not gain enough investments and loans, although they probably had more motivation and capability to create employment opportunities and stimulate economic growth. They had no choice but to turn to the informal financial market (such as P2P lending) for financing at a much higher interest rate. Thus, it was not surprising to see

both a high savings rate and a high lending rate for SMEs in that period. The P2P online financing, to a certain extent, also drove the market-led interest rate liberalization process in China (NRI, 2014a).

To curb risk explosion caused by online financing and promote financial innovation in the restructuring of China's economy, on August 23, 2011, CBRC issued the "Notice on Risk Alert of P2P Service", which disclosed the risks existing in the online P2P lending service including the credit risk of the borrower, the risk of illegal fundraising and the risk of money laundering. The above-mentioned legal risks might occur due to the following reasons: (1) **The absence of a clear supervision authority.** In several areas including Wenzhou, Zhejiang Province, supervision had been carried out by the local Financial Service Office, the legitimacy of which had been questioned. (2) The absence of a **clear market access threshold.** The establishment procedures of an online P2P lending company were the same as those of an IT company except that the former has to file a record of its website with the telecoms authority. In other words, no additional qualifications or licensing requirements were required despite the financial services features of online P2P lending companies, and despite the fact that the wider financial services industry in China was heavily regulated. (3) **Lack of legislation.** The lack of governing laws, regulations and industrial guidance caused some P2P lending companies to engage in business operations that threatened financial safety (Wang, 2013).

In PBOC's 2014 China Financial Stability Report (the "CFS" report), fair competition was cited as one of five major principles for regulation of FinTech. Specifically, the CFS report stated that online financial innovation should (1) contribute to the real economy; (2) be consistent with overall requirements of macroeconomic regulation and financial stability; (3) protect consumers' legal interests; (4) preserve a market order of fair competition; and (5) contribute to industry autonomy. In this regard, the regulators were committed to "fairness" as a regulatory principle to both online and offline financial services that were functionally equivalent. There were discussions to set comparable banking regulatory requirements on P2P lending, including market-entry standards such as minimum capital requirements, qualified investor programs, and mandatory reserves against loan losses and other risks, but nothing had been legalized. In term of credit rating, PBOC's Credit Reference Center (CRC)'s subsidiary Shanghai Credit Information Services (SCIS) built a nationwide P2P credit information

system, the Net Financial Credit System (NFCS) in 2013 to share credit information of individuals and businesses (NRI, 2014a).

Some e-commerce operators (such as Taobao) were using their customer and transactional big data (transaction, logistics and deposit data within the e-commerce platform) as the core basis for the credit rating scorecard computation. This was proven to be very effective compared to the traditional lending assessment practice. The big data credit scorecard only took a few seconds to complete, while the bank credit evaluation form and supporting documents verification took days, if not weeks, to finish. Therefore, banks were not interested in lending out small sums as the profit-to-time ratio was very low.

Although the P2P industry still had its problems, the innovations and inclusiveness of the industry had a profound significance by bringing “inclusive finance” to this “forgotten financial market”. The industry players urged the government to provide some leeway in the policy to promote financial innovation. The credit, technology and market mechanisms developed in the industry could be viewed as an experiment and served as reference for the current financial reform (*Chinese Business News*, 2013). “*It is scientific and logical to sum up experiences, identify problems and develop proper regulatory measures when an industry has grown to an economy of a certain scale*”, said Tang Ning, CEO of CreditEase, China’s earliest established P2P platform and currently the world’s largest P2P institution.

3.2 Mobile Payment in China

Along with the rapid development of e-commerce in China, online third-party payment (Mobile Payment) systems also underwent tremendous growth in terms of transaction values, types and service providers. Mobile payment services were offered for not only merchandize or service purchases but also payment for public utility, traffic fines and credit cards. The traditional bank remittance service was to a certain extent adversely affected by the mobile payment (Wang, 2013). By the end of June 2014, mobile payment users had increased to 292 million, of which about 200 million were making mobile payments. According to PBOC, the market size of third-party payment had increased by 60% YoY in 2013 to RMB 16 trillion and mobile Internet payment

had of late been the major driver of the growth (Yao, 2014). As of February 2014, there had been a total of 269 licensed third-party payment institutions, 90 of which support mobile payment. Alipay and WeChat Pay took dominating market shares of 48.8% and 19.8%, respectively (Source: iResearch, 2014)

In China, in order to provide mobile payment services, any non-financial companies must apply to PBOC a “Payment Business License”. On June 21, 2010, PBOC issued the “Measures for the Administration of Payment Services of Non-Financial Institutions”, which stipulated the supervision authority and application procedures for the licensing of mobile payment activities. By December 2013, around 250 companies had already obtained Payment Business Licenses (Wang, 2013).

The rapid technology and business model innovation in mobile payment resulted in the regulatory authorities struggling to keep up with changes. From March 2014 to June 2015, PBOC suspended the rollout by Tencent and Alibaba (two of China’s largest e-commerce operators) of online credit cards and code (QR) scanning payments, ostensibly due to concerns about data privacy with these new systems, but perhaps also partly because the authority needed time to understand their impact. To control market, operation and credit risks, CBRC issued guidelines in 2014 which required banks to set payment limits on spending via mobile payment services that were appropriate to customers’ risk tolerance levels. In July 2015, the suspension on QR payment was released. Many mobile payment operators, including Alipay and WeChat Pay, rapidly promoted usages of QR payment by offering discounts and cash to consumers, retailers and merchandisers. The result was very successful, and QR payment became the mainstream of mobile payment in China and progressively in Asia (such as, HK, Malaysia, Singapore and India).

Compared to developed economies, new technology adoption was much faster in emerging economies such as China given the limited amount of legacy issues and the inefficiencies of the existing system. For example, one reason why Internet payment systems such as Alipay and WeChat Pay grew much faster in China compared to the developed world was because the alternative form of payment system (such as credit card) was much more established in the developed economies, but less developed in China. One key reason why e-commerce developed so quickly in China was the inefficiency of traditional retailing system to tap the domestic consumer market.

Therefore, it was entirely possible that FinTech could develop much faster and become much bigger in China than in the developed world. (Credit-suisse, 2014).

However, the regulators remained cautious about the business risks from FinTech. China's banking regulators had intervened on several occasions to halt some innovative products, including virtual credit cards provided by third-party providers and e-commerce companies. At the end of March 2014, PBOC also announced to cap amounts Chinese can spend using smartphone payment services. Major banks had limited the amount of money consumers could transfer into FinTech accounts, capped them at RMB 5,000 per transaction (RMB 50,000 per month) for Alibaba and WeChat Pay. This was perhaps an attempt of traditional banks to curb massive amount of money being transferred from bank deposit accounts and mobile accounts (WSJ, 2014).

3.3 Online Financial Product Distribution in China

During the past two years, the development of financial product distribution was impressive. In June 2013, a financial product called Yu'e Bao (wealth balance) was created as an investment product for settlement funds held by customers in Alipay, a major form of payment in Taobao (one of the largest e-commerce platforms in China). With a T+0 settlement mechanism between Yu'e Bao and Alipay, the settlement account was linked to Tian Hong investment fund account. The annual yield of Yu'e Bao was around 8% to 6% from 2013 to 2015 (and subsequently dropped to below 5% in 2018), which was much higher than the regulated interest rate that was 0.4% to 0.8% for saving or 2% to 4% for short-term deposit accounts. The high yield was enabled by the short-term liquidity needs of commercial banks that pushed up the interbank borrowing rate. The attractive yield rate caused the asset size of Yu'e Bao to grow rapidly from RMB 200 million in mid-2013 to RMB 180 billion by the end of 2013 (Credit-suisse, 2014).

In view of the success of Yu'e Bao, other e-commerce companies joined the competition and started to collaborate with traditional fund companies to launch their own MMF products. The rationale for Internet companies to sell financial products was likely to be: (1) to leverage existing user traffic on their portals as online distribution channels for financial products and provide value-added services that attract users to

remain on their online portals; (2) to nurture the usage of their own mobile payment mechanisms and capture more user logins; and (3) to become a cheaper and more efficient distribution channel for financial products that could eventually drive additional revenue from the money market products (Yao, 2014).

Meanwhile, banks were also competing with Internet companies in the distribution of their own MMFs. For example, ICBC and Ping An Bank offered money-market products of their own that yielded more than 6%. China Pacific Insurance sold insurance policies and wealth management products on Tmall to avoid the hefty commissions or banks charge (about 4% of principle). As a result, the digitalization of banking product, assets under management in MMFs skyrocketed to a total of RMB 883bn at the end of 2013, equivalent to 0.85% of the total bank deposits in China (Yao, 2014). It was more economical for foreign banks with commercial banking operations in China to distribute their WMPs via online channel in view of their limited local branch coverage.

The fast growth of MMFs and other products offered via Internet channels raised concerns that bank deposits could eventually be eroded, leading to higher funding costs for banks as depositors move their funds from demand and short-term deposits into other products. MMFs were allowed to invest in short-term financial assets, such as bonds, bank deposits and repos. Even though the deposits remained in the banking system, MMFs raised banks' funding costs substantially. Demand and short-term deposit rates were usually low while rates for Internet-based products were much higher (5%-7% in 2013). FinTech accelerated the process of shifting from bank deposits to MMFs and other WMPs, thus introducing new challenges for monetary policies. For instance, M1 growth slowed to 1.2% in January 2014, the lowest level since data became available in 1997. Demand deposits saw negative year-on-year growth at -4.2%, which had never happened before (Yao, 2014).

The schedule for online WMP stores were delayed several times due to regulatory concerns over risks to the financial consumer protection. According to the "Interim Provisions on the Administration of the Business Operations of Securities Investment Fund Distributors through Third-Party E-Commerce Platforms" issued on March 15, 2013, the regulators required the platform operator to obtain a qualification before engaging in MMFs online business. In December 2014, Taobao was in the process of applying the qualification from CBRC. Both fund companies and consumers were

optimistic about opening of fund stores on Taobao, which were deemed to be able to greatly facilitate purchase procedures and expected to enjoy great popularity (Wang, 2013). In early 2015, the online MMFs mart was officially launched, and traditional banks also sold their WMPs on this MMFs mart.

4.0 FinTech Impacts on Regulation and Innovation

The rapid development of FinTech was driven by the following two factors. Firstly, the *inefficiency of incumbent financial services* made substantial room for FinTech. For example, third-party payment companies provided tailored solutions to certain industries and significantly enhanced the convenience of shopping and payment for the public. Traditional banking operation, with heavy administration bureaucracy and regulative controls over product / service innovation, was incapable of meeting consumers' evolving needs and changes in buying behavior. Likewise, P2P fulfilled the borrowing demands of consumers with incomplete credit information and of small enterprises, which had not been fully served by traditional financial institutions. Secondly, the regulator had a more accommodative attitude towards FinTech. As FinTech had to some extent helped enhance financial intermediation, regulators were more accommodative to its development. However, this raised concerns about *"regulatory arbitrage"*, or how to maintain regulatory consistency between FinTech companies and existing financial institutions. For instance, regulators set strict controls over investment thresholds on mutual funds, wealth management and trust products offered to public by traditional banks. However, Internet players did not require compliance with such requirements, especially in connection with certain high-return products with corresponding high risks (such as Yu'e Bao) (Yao, 2014).

In association with the rapid development in FinTech, several major issues in financial regulation and innovations became obvious.

(1) FinTech led to the issues of *ambiguous legal status and business boundaries*.

For instance, P2P lending platforms were engaging in a type of business that was difficult to define in the legislation or to effectively regulate. This often caused business activities of FinTech enterprises to go beyond regulatory boundaries and enter into a gray zone of law, sometimes all the way into illegal

activities, such as money laundering and illegal funds rising. Internet financial regulation in China was very much lagging behind innovation (Yao, 2014).

- (2) **Insufficient risk control might lead to operational risks.** Some FinTech enterprises adopted a controversial high-risk transaction model for the sole purpose of expanding their business and increasing profitability. These enterprises failed to establish such mechanisms as customer identification, transaction recordkeeping and analysis, and reporting of suspicious transactions (Know Your Customers (KYC requirements)). Some Internet enterprises neither practiced sound internal management nor provided adequate protection of information security, which resulted in potential risks of customer information leakage, funds embezzlement and investment losses (Yao, 2014).
- (3) **Limited mandatory information disclosure to public and regulators.** Some WMPs distributed via Internet were sold with misleading or inadequate information disclosure to the consumer. In addition, currently the regulator did not impose mandatory stress-test, capital reserve adequacy and mandatory risk disclosures requirements on FinTech companies. As a result, there were risks associated with market discipline, liquidity and operations of FinTech companies (Yao, 2014).

What actions were taken by the Chinese authorities? The Chinese regulatory authorities took an active attitude towards the development of online finance. On August 1, 2013, an “FinTech Development and Supervision Research Team” composed of officials from seven ministries went to Shanghai and Hangzhou to conduct a study on the development and innovation models of FinTech. In its “Implementation Report of the Monetary Policy of the Second Quarter”, PBOC defined FinTech as “an emerging industry which combines traditional financial services and the Internet”. It pointed out that online finance boasts high transparency, wide participation, low intermediary costs, convenient payment solutions, an affluent credit database and a higher efficiency of information handling. As a new financial model, FinTech put forward higher requirements on financial supervision, financial consumer protection and macroeconomic control. The relevant new regulations would be drafted and promulgated to lead the Internet financial industry to grow healthily (Wang, 2013).

FinTech threatened the dominant position of the traditional financial service players in the market, especially banks, which were at the risk of becoming less innovative due to the increasing regulatory obligations and mounting costs. Banks in China were

keeping a close eye on the development of Internet financial services provided by the internet companies, but most of them remained unconcerned about the increased competition from these new players in the short and medium term. Retail banking generated only a small portion of revenue in the traditional banking portfolio, and not all retail banking functions could be substituted by FinTech. Nevertheless, banks were motivated to develop their online banking services, such as online lending platforms, payment via internet or mobile phone and the provision of other banking services through mobile banking in order to keep their market shares (Wang, 2013).

On the other hand, banks started to cooperate with internet companies. It was reported that China Minsheng Bank had been collaborating with Alibaba Group to provide financial services, such as offering WMPs, credit card operations, and electronic banking. More and more collaborations between traditional financial institutions and internet companies were expected to be seen (Wang, 2013).

5.0 Financial Liberalization and Its Impacts

5.1 Liberalization of Bank Interest Rate

China's market-led interest rate liberalization progress was accelerated by recent financial dis-intermediation, mobility banking and technological development. According to PBOC, China's interest rate liberalization should start from long-maturity and large-size deposits and gradually move to short-term small retail deposits. However, MMF like Yu'e Bao effectively offered free market interest rate to depositors of short duration on a very small scale, and this could accelerate interest rate deregulation in short-term deposits for small depositors (Credit-suisse, 2014). On November 21, 2014, PBOC lowered the benchmark deposit rate to 2.75% from 3% and the largely symbolic lending rate from 6% to 5.6%. Bundled into the announcement was another step toward interest rate liberalization, with the maximum deposit rate raised to 1.2 times of the benchmark, compared with 1.1 times previously. China cut interest rates for the first time in more than two years, a powerful signal that the government wanted to step up support for the slowing economy. It emphasized the need to reduce corporate financing costs to help struggling companies, especially SMEs. It was also an important step on

the path towards interest rate liberalization in China. Previously, banks were allowed to set deposit rates 10% above the benchmark level; that was raised to 20%. Lending rates had already been liberalized, with no floor on them (*The Economist*, 2014).

5.2 Internationalization of Renminbi (RMB)

International use of RMB was an important element of China's reform strategy. The goal of RMB limited liberalization was to increase the usage of RMB in international transactions. The government had not prepared for full reserve-currency status and free convertibility of RMB. By December 2014, China had set up offshore RMB centers in Hong Kong, Singapore, Taipei, London, Frankfurt, Paris, and Luxembourg. Offshore investors had been keen to invest in RMB for its continued appreciation since 1994 given China's strong economy growth, high foreign reserve and relatively low inflation. However, it cannot become a true international currency until Chinese authorities drop the strict limits that remain on capital flows (that is, transactions in financial assets) between China and the rest of the world (Gagnon and Troutman, 2014).

To further liberalize the economy, Shanghai Free Trade Zone (SFTZ) was launched in September 2013 as a testing ground for a number of economic and social reforms. As a sign of RMB liberalization, SAFE announced that companies incorporated in SFTZ would be permitted to Renminbi convertibility and unrestricted foreign currency exchange. The liberalization of RMB led to development of offshore RMB (CNH) market, in the forms of offshore investments like bank deposits, CDs, dim sum bonds, bond investment funds, RMB equities and A-share ETFs. As of March 2014, total offshore CNH deposits amounted to RMB 1,455 billion (\$234 billion) and offshore CNH bonds reached RMB 419 billion (\$67 billion).

What were the potential implications from RMB liberalization ? First, as RMB came to be used more widely in trade settlements and as a vehicle for cross-border financial flows, it would become logical for China to play a bigger role in International Monetary Fund (IMF) in terms of decision making, drawing rights (SDR) and RMB credit to its members. Second, as RMB became a global reserve currency, there were worries on potential instability of exchange rate. Investors, including central banks,

could be prone to shifting the composition of their reserve portfolios in response to events, rendering the exchange rates between the major currencies more volatile. Third, the continued liberalization of RMB will hasten the regionalization of the international monetary system. This would happen if RMB came to be widely used for international transactions in Asia, while the role of the US dollar diminished in the region, leading to the dollar and RMB sharing the international currency role (Eichengreen and Kawai, 2014).

5.3 Liberalization of Financial Market and Access

A growing division between online banking (offered by banks) and FinTech (offered by Technology firms) had begun to take shape. Jack Ma, founder of Alibaba, argued that the Chinese financial industry was over-regulated. He regarded online banking and FinTech as the two big opportunities in the future financial industry and believed that spoilers were needed to revolutionize the industry (Guo 2013).

The interoperating of multi-players in the new branchless banking ecosystem

Unlike Africa, which was dominated by large mobile network operators (MNOs), China's financial service provider liberalization was driven by a convergence of forces coming from banks and financial institutions, as well as innovative technology companies and internet giants providing payment (Lakala), search engine (Baidu), e-commerce (Alibaba), and social networks (Tencent). As a result of rapid adoption of mobile Internet technology, solid payment infrastructure and a vibrant e-commerce industry, China was moving rapidly toward a tipping point for branchless banking uptake. At the core of this pathway, the ecosystem for interoperability, digital payments and e-banking in China grew to encompass a wide range and number of players, including banks, MNOs and third-party payment providers, with a number of key institutions such as China Union Pay (CUP) and credit bureaus that enabled the ecosystem, linking closely with regulators (PBOC, CBRC) (Shrader and Duflos, 2014).

In much of the developing world, MNOs (Telecom Operators) were playing a critical role in driving financial services to low-income clients through mobile money, allowing people to store and transfer small amounts in their mobile wallets, cashing in and out through large agent networks inexpensively and in real time. But despite the

scale of China's MNOs, operators struggled to establish a relevant role in providing financial service. For example, many African operators had established around mobile money. Most players believed that the predominance of bank accounts degraded wallet utility. Regulatory limitations were also a factor, with recent regulation limiting total transactions on a mobile wallet per year to 1,000 RMB (approximately \$160) (Faz and Mozer 2013).

Third-party payment providers were a source of major innovation in the payment space in China, with the number of third-party payment licenses reaching 223 in 2012. Third-party payment enterprises in China showed two main kinds of development models. While Alipay and WeChat Pay focused largely on the needs of individual users in business development and product innovation, other third-party payment parties, including 99Bill, ChinaPnR, YeePay, and iPS, regarded corporate users as the focus of business development, providing integrated solutions to enterprises so as to meet their requirements. Social media also began to play major growth roles in mobile payments. WeChat, China's most popular instant-messaging service, developed by Tencent, added a mobile payment service on its platform in August 2013, and Baidu, China's leading search engine, followed by introducing its own mobile payment service known as Baidu Wallet SDK.

Central to the financial interoperability and access was CUP, which was responsible for linking ATMs and electronic funds transfer at POS throughout the Chinese Mainland; and to set standards for interbank clearance, digital payments and funds transfers. For example, CUP launched a broad range of innovative payment pilot programs designed to increase financial inclusion, including the agent banking pilots in rural China. IT infrastructure, including payment associations, credit bureaus, and interoperable automated teller machines and point-of-sale (POS) switching through China Union Pay, also helped pave the way for increased access to financial services by establishing common industry standards promoting product innovation, improving transparency, and building a greater number of client service points (Shrader and Duflos, 2014).

A range of coordination bodies, including the Mobile Payments Industry Alliance (the "Alliance"), which was founded by CUP in 2010, were also launched in recent years to drive clarity and standards in the market for branchless banking. Alliance was a platform through which banks and wireless operators could jointly offer mobile

payment services to firms in various industries. Members included 18 national and local commercial banks; two mobile communication operators; mobile phone manufactures, such as Nokia and Lenovo; and related institutions, including several smart card and chip producers, system integrators, and academies (Shrader and Duflos, 2014). In May 2011, the Payment & Clearing Association of China (PCAC) was established through an initiative of MNOs and third-party payment companies. PCAC was a self-regulatory body of the payment and clearing service industry of China and was overseen by PBOC. On February 29, 2012, PCAC released the Self-Regulatory Pact for the Payment and Clearing Industry of China (Oak 2013).

6.0 Summary

This paper reviewed the major events and actors' actions in China's banking system over the past 70 years. The history showed a rapid migration from a mono-bank to a modern banking system with diversity, liberalization and technology-driven innovations. The rise of FinTech cross-industry integration is eroding the legacy business model of traditional banks that had long-dominated China's financial market. Traditional banks are transforming themselves to fit in the new business environment and eventually propel changes in their operations. To play offend and defend, financial institutions have been investing and expanding their online platforms for better omnichannel management and data values discovery. Will it be a "winner takes all" or a "co-compete" model going forward? The answers are unfolding in multiple directions and will be an interesting research area to study how institutions continue to evolve in the new digital economy.

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