China’s Financial Mechanisms for Industrial Development

Changwen Zhao
China’s Financial Mechanisms for Industrial Development

Changwen Zhao

Abstract

The paper starts from the comparison between China and other developing economies and gives a rough overview of China’s financial mechanisms in industrial development from a systematic perspective. Since the beginning of reform and opening up of the financial system, China’s industrial development has taken great strides in expansion, diversification, transformation, and upgrade of its industries. This resulted from the interaction of multiple factors, in particular, the financial factor. China’s financial system has grown rapidly and maintained its stability during a long term, because of the implementation of financial restraint and “online balance sheet repair” strategies. Such stable growth provides the basic precondition for the financial sector to support industrial development. As for financial support to specific industries, the financing for the manufacturing industry mainly relies on the increase of the collateral value, which can cover the risks of loss on the loans; the financing for the Internet industry is mainly from the overseas stock market. The Chinese mode can provide some inspiration to Africa, but this should be through a dialectical understanding in order to distinguish China’s experience from its lessons learned.

Keywords: Financial restraint, financial repression, online balance sheet repair, collateral.

This paper is a contribution to the How They Did It (HDI) series, a new line of publications from the Vice-Presidency for Economic Governance and Knowledge Management. It aims at presenting interesting economic transformation experiences, and discuss ways in which some countries have addressed various development issues. It is part of the African Development Bank’s strategy to help its regional member countries achieve the High-5 priorities. The findings, interpretations, and conclusions expressed in the HDI series are entirely those of the author(s) and do not necessarily represent the views of the African Development Bank Group, its Board of Directors, or the countries they represent. Comments and enquiries should be addressed to hdi@afdb.org.

Papers in the How They Did It (HDI) series are available online at: https://www.afdb.org/en/knowledge/publications/policy-briefs/

Produced by the Macroeconomics Policy, Forecasting, and Research Department in the Vice-Presidency for Economic Governance and Knowledge Management

Coordinator
Adeleke O. Salami

1 Director General, Department of Industrial Economy, Development Research Center of the State Council, Beijing, 100010, China.
1 | Introduction

In the past three decades, since the beginning of reform and opening up of China’s financial system, its industrial development has seen great achievements in expansion, diversification, transformation, and upgrade of industries. The interaction of multiple factors, among which is the financial factor, has been indispensable to these achievements. This paper aims to discover how finance has supported this process. Unlike research focusing on specific financial instruments and policies, I start from a comparison between China and other developing economies, so as to give a brief overview, from a systematic perspective, of the financial mechanisms active in China’s industrial development from a systematic perspective.

Compared with most developing economies, China shows two distinctive characteristics in terms of financial and industrial development: the financial system is on a large scale, with strong deposit mobilization capabilities, maintaining its stability over the long term; manufacturing and Internet industries have experienced rapid growth. This paper, thus divides the investigation of “how finance supports industrial development” into two specific areas: (1) how China developed its financial system and acquired the precondition for allocating large amounts of funds; (2) what kind of mechanism has attracted domestic and overseas financial systems to invest large sums into China’s manufacturing and Internet industries.

The structure of this paper is as follows: Section 1 introduces China’s financial development mode of “financial restraint” and “online balance sheet repair.” Section 2 explains the role of the continuous increase of collateral value in promoting the manufacturing industry and that of fundraising from the equity financing market in promoting the Internet industry. The last section discusses how China’s mode of finance supporting its industrial development might provide inspiration to Africa.

2 | China’s Financial Development Mode: Financial Restraint and “Online Balance Sheet Repair”

2.1 The Rapid Expansion of the Scale of Financial Industry and Maintenance of Stability

The precondition for providing efficient support to industrial development is to have in place a basically stable financial system, which features strong deposit mobilization capabilities, and to be able to allocate large amounts of funds. Compared with most developing economies, China has shown a remarkably rapid development in its financial system, and its financial industry has maintained a basic stability over the long term, which has created a solid foundation for China’s industrial development.

In terms of absolute scale, by the end of 2016, the assets of financial institutions in the banking industry had reached RMB 232 trillion, more than a thousandfold increase over the 1978 figures, and the aggregate financing to the real economy was up to RMB 155.99 trillion, an increase of 800 times (see Figure 1).

Figure 1 Aggregate financing to the real economy 1978–2014 (RMB 100 million)

Moreover, the domestic credit-to-GDP ratio provided by the financial sector has dramatically increased on the whole. In 1978, the ratio was 37.9 percent in China, with only a small gap between it and other developing economies, including India, South Africa, Turkey, and Brazil. However, in 2008, the ratio rose to 118.7 percent in China, presenting an increasingly large gap between it and other major developing economies (see Table 1).

### 2.2 Rapid Expansion of the Scale of the Financial Industry: Financial Restraint rather than Financial Repression

Financial restraint (Hellmann, Murdock, and Stiglitz 1997) is the main reason that China’s financial industry has maintained rapid growth on the scale that it has (Zhao and Zhu 1995), and was widely used by the economies that created the “East Asian Miracle.”

Since the beginning of reform and opening up of China’s financial system, many people have portrayed it as “financial repression” (Bai and Qian 2009; Feyzioğlu 2009; He and Wang 2011; Kong 2011; Johansson 2012). Actually, this is a misunderstanding, because there are remarkable differences between China’s financial system and the typical financial repression system (Shaw 1973; McKinnon 1973), in terms of policy goals, instruments, degrees of intervention, and policy effects (see Table 2).

According to Hellmann, Murdock, and Stiglitz (1997), the core of financial restraint lies in creating rent opportunities and enhancing incentives for banks’ deposit mobilization and granting of loans. It features three policy instruments: interest spread protection, restrictions on entry, and asset-substitution restrictions. Among them, the first plays a major role, while the latter two are supplementary.

#### Table 1 Financial scale of major developing economies—domestic credit provided by financial sector (percentage of GDP)

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>India</th>
<th>Brazil</th>
<th>Russia</th>
<th>Nigeria</th>
<th>Turkey</th>
<th>Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>37.9</td>
<td>33.1</td>
<td>45.5</td>
<td>n/a</td>
<td>21.6</td>
<td>35.7</td>
<td>19.9</td>
</tr>
<tr>
<td>1985</td>
<td>65.2</td>
<td>46.7</td>
<td>50.9</td>
<td>n/a</td>
<td>43.4</td>
<td>39.9</td>
<td>16.6</td>
</tr>
<tr>
<td>1990</td>
<td>88.4</td>
<td>50.0</td>
<td>87.6</td>
<td>n/a</td>
<td>21.9</td>
<td>19.5</td>
<td>50.3</td>
</tr>
<tr>
<td>1995</td>
<td>86.9</td>
<td>42.9</td>
<td>54.9</td>
<td>25.5</td>
<td>23.6</td>
<td>27.8</td>
<td>51.8</td>
</tr>
<tr>
<td>2000</td>
<td>118.4</td>
<td>51.2</td>
<td>70.7</td>
<td>24.9</td>
<td>10.0</td>
<td>37.9</td>
<td>60.7</td>
</tr>
<tr>
<td>2008</td>
<td>118.7</td>
<td>69.8</td>
<td>85.9</td>
<td>24.4</td>
<td>26.6</td>
<td>54.6</td>
<td>36.8</td>
</tr>
<tr>
<td>2015</td>
<td>194.4</td>
<td>76.7</td>
<td>108.7</td>
<td>54.5</td>
<td>23.1</td>
<td>92.9</td>
<td>46.7</td>
</tr>
</tbody>
</table>


Financial restraint (Hellmann, Murdock, and Stiglitz 1997) is the main reason that China’s financial industry has maintained rapid growth on the scale that it has (Zhao and Zhu 1995), and was widely used by the economies that created the “East Asian Miracle.”
Interest spread protection refers to setting the deposit rate below the competitive equilibrium level, to create rent opportunities by generating a spread between deposit rates and loan rates so as to provide incentives for banks. In October 2015, before the benchmark deposit rate ceilings were completely lifted, China had strict regulations on the deposit interest rate ceiling. Though the real deposit interest rate is positive on the whole, the interest spread was maintained at a certain level for protection. This was also the main reason for rapid growth in profits and an incentive for further expansion after China’s banking system gradually, beginning 2003, emerged out of the condition of having a high NPL ratio.

Restrictions on entry refer to the restricting of entry of financial institutions to preserve rents generated by the policy of interest spread protection. China imposes strict restrictions on entry to maintain financial stability, due to lack of an exit mechanism. Aside from rural banks, city commercial banks set up as urban credit cooperatives, rural commercial banks, and rural cooperative banks set up as rural credit cooperatives, only one depository financial institution, namely, China Minsheng Bank, was newly opened to the public from 1996 to 2013 in China.

Asset-substitution restrictions refer to the restriction of financial products development that could substitute for deposits, to prevent any competition between them and keep the deposit interest rate below the competitive equilibrium level in the long run. It has always been the goal of China’s financial policies to develop a multi-tiered capital market and to provide varieties of financial products. However, China still has asset-substitution restrictions, but with no specific policies, because of the backward development of fixed-income financial products, which involve low risk, yet high income, objectively speaking. The rapid development of banks’ wealth-management products and funds in the monetary market did not exert a significant impact on the deposits until 2010. The distribution of household financial assets indicates that deposits in banks have always taken up a high percentage of household financial assets, despite the stock market fluctuations (Table 3).

2.3 Strategy for Financial Stability: “Online Balance Sheet Repair”

Developing economies often experience the impacts of financial risks during their financial development. The reason that China’s financial system has kept expanding and provided support for industrial development is that China, in the face of such impacts, has adopted the strategy of “online balance sheet repair” (Zhou 2013) to maintain the stability of its financial system.

The policy contains two factors. In particular, “repair” refers to the balance sheet repair of financial institutions affected by large-scale financial risks, while “online” means that the repair will not influence the normal economic operation or the capital’s basic function as a medium, or the financing function—that is to say, economic operations cannot be interrupted, as the “machine” should keep running and, meanwhile, components going wrong should be replaced (Zhou 2013).

<table>
<thead>
<tr>
<th>Table 2 Financial restraint vs. financial repression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial restraint</strong></td>
</tr>
<tr>
<td><strong>Policy goals</strong></td>
</tr>
<tr>
<td><strong>Policy instruments</strong></td>
</tr>
<tr>
<td><strong>Degrees of intervention</strong></td>
</tr>
<tr>
<td><strong>Conditions for implementation</strong></td>
</tr>
<tr>
<td><strong>Policy effects</strong></td>
</tr>
</tbody>
</table>
“Online balance sheet repair” is supported by three major policies. The first is interest spread protection, which is consistent with that of financial restraint. Interest spread protection or management is vital to repair bank balance sheets and maintain financial functions. As Zhou Xiaochuan (2012), Governor of the People’s Bank of China, stated: “At the beginning of 2000, China’s major banks were going through restructuring, repairing their balance sheets and seeking for more capital, which would possibly have negative influence on their active functioning as capital intermediaries. Moreover, the banks were concerned about their own capital quality. At the time they realized the importance of interest spread management because certain spread could stimulate the banks to liquidate their own assets and grant loans.”

The second policy is the stripping of non-performing assets (NPAs) and capital injection. Under the impact of large-scale financial risks, banks are concerned about their asset quality. In such a context, stripping the NPAs via “online balance sheet repair” can help reduce their concern, as separation is more efficient than increasing liquidity (Zhou 2013). On this basis, China established four major asset management companies in 1999, especially dedicated to disposing of the NPAs separated from the banks. Since 1999, these companies have disposed of more than RMB 2 trillion of the nearly RMB 3 trillion in NPAs separated from China’s banks. After the separation of NPAs, the central government has injected capital into major banks by issuing special treasury bonds, foreign exchange reserves, and other ways, to increase the banks’ capital. In particular, a total of RMB 270 billion of special treasury bonds were issued in 1998, and about US$100 billion have been injected into the Bank of China, China Construction Bank, Industrial and Commercial Bank of China, and Agricultural Bank of China through foreign exchange reserves since 2003.

The third policy promotes the reform of the banking industry. The wholly state-owned commercial banks have carried out such reforms as the introduction of the shareholding system or strategic investors and being listed on stock markets. In 2003, the Central Huijin Investment Co., Ltd. was established and mandated with exercising the rights and obligations as an investor in major state-owned financial enterprises, on behalf of the state, marking the essential progress in introducing the shareholding system in wholly state-owned commercial banks. Later, Bank of China, China Construction Bank, Industrial and Commercial Bank of China, and Agricultural Bank of China were converted to shareholding banks, introduced foreign commercial banks as strategic investors, and were successfully listed on stock markets. To reform rural credit cooperatives, such measures as the dissolving or merging of some of them and setting up credit cooperative unions have been adopted, which have strengthened the management and control of credit cooperatives.

3 | Collateral Value, Fundraising from the Equity Financing Market, and Industrial Development

Compared with developing or even developed economies, China has performed well in its industrial development, in at least two aspects. First, in 2010, China became the largest manufacturing country in the world and has maintained that status. In 2015, 56 manufacturing enterprises were listed in the world’s top 500 enterprises. In 2016, China led the world’s output for about 220 of over 500 major industrial products.

Second, the Internet industry has developed rapidly. In 2016, the online retail volume accounted for 12.6 percent of the total...
volume of retail sales of consumer goods, ranking first among
the major economies in online sales; and four Internet enter-
prises entered the top 10 global Internet companies in terms
of market value, exceeded only by US enterprises.

From the financial perspective, there are distinctive differences
between manufacturing and Internet industries. Generally, the
former falls into the category of heavy-asset industry, with
more collateral and greater support from the banking system,
while the latter is in the category of light-asset industry, with
less collateral but greater support from the equity financing
market. In light of these differences, this section largely dis-
cusses how the banking system can support the manufac-
turing industry and how the equity financing market can
bolster the Internet industry.

3.1 Collateral Value and Financing
in Manufacturing Industry

The banking industry has provided a large number of loans for
the manufacturing industry. In 2015, the outstanding loans
granted by the commercial banks to the manufacturing indus-
try amounted to RMB 12.8 trillion, and from 2006 to 2012, the
average annual growth rate reached 16.4 percent (see Figure 3).

Driven by the incentive of interest spread protection and the
pressure of competition in the banking sector, China’s banks
have had the natural impulse to grant loans. However, the
banks receive deposits from the public and have low ap-
petites for risk. In addition, at the end of the 20th century and
in the beginning of the 21st century, the NPL ratio had
reached about 30 percent, and the regulatory department im-
posed stringent requirements for the security of loans and es-
lished a lifelong accountability system for the granting of
loans, thereby improving the degree of risk aversion in China’s
banking industry. So what factors propel the risk-averse bank-
ing sector to grant loans to the manufacturing industry? By in-
roducing the shareholding system into commercial banks,
together with regulatory measures, the aim was to prevent
the government from intervening in banks’ micro-operations;
thus, the willingness to grant loans is not because banks are
forced by the government to do so.

In fact, the reason for these loans is that the continuous and
rapid increase of collateral value. Under the conditions of in-
formation asymmetry, when granting loans, banks rely signif-
icantly on collateral. To a large extent, how much collateral an
enterprise possesses, or how high its collateral value is, de-
termines its accessibility to loans. In general, land and real es-
tate are quality collateral favored by banks. With the rapid
growth of economy, prices of land and houses also rise fast.
Consider Beijing, for example. As announced at the begin-
ing of 2014, the price of Level-1 residential land was RMB
28,720 per square meter, rising by 3.89 times from 2002, with
an average annual increase of 12.0 percent, while the price of
residential land at other levels saw a much larger increases
(see Table 4).
This means that a bank, when deciding whether or not to grant loans, does not need to examine an enterprise’s primary source of repayment, nor its future operational prospects or cash flow. Instead, as long as the enterprise possesses sufficient quality collateral, the bank can grant loans to it. The bank can acquire the collateral, such as land or real estate, the value of which can cover the risks of taking losses on loan defaults. In China, the bank is nicknamed “pawnshop,” as it is highly dependent on collateral.

China has also adopted policies promoting micro and small enterprises, achieving some results that have been lessons learned. For example, China has established many policy guarantee enterprises, which have played various roles, but it is still predominantly focused on the massive development of private guarantee institutions. Insufficient regulation and lack of sustainable business models have turned private guarantee institutions into either actual financing platforms for their controllers, or for those engaged in illegal operations, often charging very large guarantee fees. Instead of helping micro and small enterprises with financing, these policies have disrupted the financial market order and increased enterprises’ burdens. Moreover, the interconnection and mutual guarantee model, which was promoted as an innovative financial method for micro and small enterprises’ financing, has incurred considerable guarantee circle and guarantee chain risks in Zhejiang, Jiangsu, Shandong, and other regions in recent years. Because the enterprises did not anticipate the risks, they hastily engaged themselves in interconnection and mutual guarantee modes, subject to payment obligations. In addition to loans and financing from the banks, China has also introduced stock-based, industrial investment-guided funds to support the manufacturing industry, especially those of strategic importance. For example, to boost the development of the integrated circuit industry, China set up China Integrated Circuit Industry Investment Fund Co., Ltd., in 2014. At the end of 2015, more than RMB 100 billion had been collected.

### 3.2 Fundraising from the Equity Financing Market and Internet Industry Development

The rapid development of the Internet industry has largely resulted from the support of the equity financing market. However, it was not so much from the domestic equity financing market, at least not in the early development period. At the beginning of the 1990s, China established the stock market, but for a long period it mainly served state-owned enterprises in their reforms, and the requirements for being listed were quite stringent. Even though the SME (small and medium-sized enterprise) board and the growth enterprise board (GEB) were established later, typical information technology enterprises seldom achieved listing on domestic stock markets. China also set up stock-based, government-guided funds and adopted policies to encourage venture capital (VC) development in the early stages. However, in the beginning years, it was the foreign venture capital that played the major role in the Internet industry.

China’s typical Internet enterprises, including Baidu, Alibaba, Tencent, JD.com, and Sina were all listed on overseas stock markets, especially in the United States (see Table 5). There are two reasons for this: (1), the financial and corporate governance structures of some Internet enterprises do not meet the listing requirements of the domestic stock market; and (2) being listed on overseas stock markets, especially in the United States, can help to enhance the companies’ popularity. Therefore, many Internet enterprises sought listing on US stock markets, which provided high-yield channels for withdrawal of venture capital (VC) and private equity (PE), the

### Table 4 Prices of residential land in Beijing

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
<th>Level 7</th>
<th>Level 8</th>
<th>Level 9</th>
<th>Level 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early 2002</td>
<td>5,870</td>
<td>4,780</td>
<td>3,660</td>
<td>2,845</td>
<td>2,145</td>
<td>1,440</td>
<td>855</td>
<td>490</td>
<td>275</td>
</tr>
<tr>
<td>Early 2014</td>
<td>28,720</td>
<td>24,520</td>
<td>20,390</td>
<td>16,330</td>
<td>12,810</td>
<td>10,010</td>
<td>7,300</td>
<td>5,050</td>
<td>3,400</td>
</tr>
<tr>
<td>Increase (percent)</td>
<td>389.3</td>
<td>413.0</td>
<td>451.7</td>
<td>474.0</td>
<td>497.2</td>
<td>595.1</td>
<td>753.8</td>
<td>930.6</td>
<td>1136.4</td>
</tr>
<tr>
<td>Average annual increase (percent)</td>
<td>12.0</td>
<td>12.5</td>
<td>13.5</td>
<td>13.8</td>
<td>14.3</td>
<td>16.0</td>
<td>18.3</td>
<td>20.4</td>
<td>22.5</td>
</tr>
</tbody>
</table>

Data source: Beijing Municipal Bureau of Land and Resources. Note: Unit: RMB/square meter.
wealth effect of which, in turn, has encouraged Internet start-ups and more VC and PE to invest in the Internet industry.

4 | Inspirations from China

On the whole, in more than 30 years of industrial development, China has brought its financial system into better order and gained some valuable experience. For example, it used a financial restraint system to promote the development of the financial system. When facing the impact of financial risks, it adopted the “online balance sheet repair” strategy to maintain basic financial stability; in the context of the backward equity financing market, it attracted funds from the overseas equity financing market. Such experience is noteworthy for most African countries which are still financial underdeveloped, with less financial deepening, banking systems vulnerable to risks, and immature equity financing markets.

However, China’s financing mode is also exposing more and more problems. First, the financial sector is oversized, enterprises suffer from excessive debt, the remuneration structures of the industries are severely unbalanced, and the excessive prosperity of the financial industry causes the capital, talents, and entrepreneurs to move from the real economy to the fictitious economy, indicating more and more the obvious negative externalities in the industrial development of real economy.

Second, the credit mode excessively relies on such collateral as land and real estate, as well as the increase of their values, which reduces the commercial banks’ risk-control technology and ability; this is not conductive to improving their innovative ability and competitiveness. Third, for the financing of micro and small enterprises, priority shall be given to developing policy guarantee institutions instead of private guarantee companies, and the interconnection and mutual guarantee mode subject to debt-repaying obligations shall be discreetly handled. Finally, it still remains a subject for study on how domestic equity financing marketing can attract and retain outstanding, listed Internet enterprises.

### Table 5 Listing of China’s Typical Internet Enterprises

<table>
<thead>
<tr>
<th>Time of listing</th>
<th>Baidu</th>
<th>Alibaba</th>
<th>Alibaba</th>
<th>Tencent</th>
<th>JD.com</th>
<th>Sina</th>
<th>NetEase</th>
<th>Sohu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue of listing</td>
<td>Nasdaq</td>
<td>HKEX</td>
<td>NYSE</td>
<td>HKEX</td>
<td>Nasdaq</td>
<td>Nasdaq</td>
<td>Nasdaq</td>
<td>Nasdaq</td>
</tr>
</tbody>
</table>


