Economic Lessons Learned from China's Forty Years of Reform and Opening Up

Academic Center for Chinese Economic Practice and Thinking

Tsinghua University

Beijing, China
December 2018

Research Team

David Daokui LI,	Gangming YUAN,	Hongling WANG,	Aobo Ke LI,
Meixin GUO,	Bing LI,	Lin LU,	Lin FU,
Ming FENG,	Xiang XU,	Jinjian SHI,	Xingye JIN,
Shaobo LONG,	Hongyu ZHAO;	Sijia HU,	Dapeng CHEN,
Yusha LI,	Di ZHOU	Chi ZHANG,	Yifan CHEN,
Xushuo WANG,	Peng ZHOU,	He ZHANG,	Kangyi LIU,
Kun LANG			

EXECUTIVE SUMMARY

In the report, we first show that the past 40 years of China's economic reform and opening up represents the greatest magnitude of economic growth in history. In addition, the 40 years of China's rapid growth is unique in comparison with other episodes of rapid economic growth, including the British Industrial Revolution; the US economic emergence following the Civil War; the Japanese economic growth after the Meiji restoration and German unification; and the Four Tigers. The most unique aspect of China's economic growth is that it began under extremely tight government political control. Because of the uniqueness of the Chinese experience, we argue that China's rapid growth serves as an invaluable laboratory to understand the relationship between the government and the economy.

Based on field trips, extensive and intensive interviews and literature surveys, we argue that there are five general lessons for a rapid growing economy from China's economic reform and opening up, all in the area of the relationship between the government and the economy. First, the local governments need to be incentivized to help rapid entry and development of enterprises. Second, local governments need to be incentivized to help rapid land conversion from agricultural to non-agricultural. Third, financial deepening is vital; that is, inducing households to hold more and more financial assets in local currency. Financial deepening is essential to convert savings into investments. This requires financial stability, which is crucial. Fourth, the learning through opening up is the key to endogenous economic growth. The fundamental benefit of opening up is learning rather than enjoying comparative advantage. Comparative advantage alone may often trap the economy in a low level of development. The fifth and final lesson from China is that the central government must proactively manage the macroeconomy. The rationale is that enterprises compete with each other in games of industrial organization. Therefore, we often find too many enterprises entering the same industry and then becoming reluctant to exit from a crowded industry. In order to resolve this problem, proactive measures including market-oriented means, administrative orders and reform measures should be implemented.

Overall, the main lesson from China's past 40 years of reform and opening up is that proper incentives and behavior of the government, local and central, are important for economic growth. China has been conducting reforms in this regard and as a result, the government more or less has been playing the role of a "helping hand" regarding economic growth, although China's economic system is far from perfect and many reforms are still needed.

Economic Lessons Learned from China's Forty Years of Reform and Opening Up

INTRODUCTION

Among the many significant 40-year periods in history, China's past four decades stands out. Over that span, China's share of global GDP has risen from 4.9% to 18.2%. In comparison, during the 40 years of the British Industrial Revolution, Britain's share of global GDP increased from 3.8% to 5.9%; during the 40 years following the American Civil War, the US share of global GDP increased from 7.9% to 17.3%; during the 40 years after the Japanese Meji Restoration and the 40 years after the World War II, Japan's GDP share increased from 2.3% to 2.6%, and from 3.3% to 8.9%, respectively. And during the 40 years of rapid growth among the so-called Asian Tigers (Hong Kong, South Korea, Singapore and Taiwan) from 1960 to 2000, Japan's share of GDP increased from 0.7% to 3.5%. Thus, in terms of magnitude, China's past 40 years represents the single greatest amount of economic growth in history.

From China's own perspective, the past 40 years were also special because, according to a study by Broadberry, Fu, Guan, Jin, and Li, China's share of the world's GDP, at its peak around the year 1600, was 34.6%. But it then experienced a decline, which accelerated starting in 1820, when other countries began to industrialize. As a result, China's GDP share stood at 4.9% at the beginning of the reform and opening up in 1978. And now after 40 years, China's share of world GDP has reached 18.2%. Thus, the recent 40 year period represented China's greatest global economic revival in nearly five centuries.

Why do we need to take stock of the economic knowledge acquired from the past 40 years of China's reform? After all, despite the impressive growth of the Chinese economy, 40 years is still a comparatively brief time in history. The first reason is rather obvious: it is for China's own sake. China did many things right in order to produce the largest amount of economic growth, but it also did many things wrong. This requires many aspects of the Chinese economy to be further reformed and restructured. It is essential for Chinese economists and economists with interest in the Chinese economy to study economic lessons from the past 40 years. Economists outside China should also be interested in the Chinese economy, given that the Chinese economy has already become the world's second largest and contributes the greatest amount to global growth.

The second reason why we need to study economic lessons from the past 40 years is that China's economic growth is unique in comparison with other 40-year periods. The single most unique feature is that it started with a very tightly controlled economy under a very powerful government, although the Chinese economy was not a centrally planned economy like the former Soviet Union's. Starting from a tightly controlled economy, China has been adjusting the relationship between the government and the economy. This process, of course, is unique. Knowledge is often gained through special cases which provide more insights than uniform and repeated events. For example, accidental experiments helped the invention of penicillin and sopher rubber for making automobile tires. In the Chinese case, the relationship between the government and the economy is the area in which economists most likely can learn enlightening and valuable lessons, and these lessons should be general in nature and can be relevant to other economies.

The third reason for taking stock of our economic knowledge over the past 40 years of reform is that in today's world, more emerging market economies are taking an increasing interest in China's experience of rapid economic growth. World leaders try to identify and understand what the general and duplicable Chinese policies and institutions from which they can learn. There are many special kinds of Chinese political and economic arrangements which cannot be duplicated in other countries, yet there should be some general lessons for other countries to study and learn.

China’s past rapid economic growth can be explained in many ways. The most general and perhaps most famous analysis came from Deng Xiaoping, who from the very beginning of the reform continually said that China should emancipate the mind and seek truth from facts. That is to say, China should experiment in whichever ways necessary to find the most appropriate institutions and policies for economic success. This of course is the most fundamental lesson from China’s economic reform.

The second approach to understanding China’s economic success is to rely upon existing wisdom from economics textbooks. That is, for example, to argue that China did it right by placing significant emphasis on education and, even before the reform era, providing girls with the same educational opportunities and priorities as boys. Some analysts argue that China has implemented the protection of property rights and privatized state-owned enterprises while others say that China has been relying upon playing up comparative advantage through international trade. All of these points make enormous sense; China has indeed made progress in all of these areas.

Yet another approach to explain China’s economic success is to go deeper to understand the specific institutional factors behind China’s growth, such as explaining how gradualist reform has worked.[1] Research has demonstrated how China’s local governments have been incentivized to experiment, since China before the reform was decentralized with each province functioning as an independent and self-contained unit. From these local government initiated experiments, the central government can identify

[1] Maskin, E., & Xu, C. (2001). Soft Budget Constraint Theories: From Centralization to the Market. Economics of transition, 9(1), 1-27.
Lau, L. J., Qian, Y., & Roland, G. (2000). Reform without Losers: An Interpretation of China's Dual-track Approach to Transition. Journal of Political Economy, 108(1), 120-143.
Bai, C. E., Li, D. D., Tao, Z., & Wang, Y. (1999). A Multi-Task Theory of the State Enterprise Reform. In Journal of Comparative Economics.
Li, D. D. (1998). Changing Incentives of the Chinese Bureaucracy. The American Economic Review, 88(2), 393-397.
Qian, Y., & Xu, C. (1993). Why China's Economic Reforms Differ: the M-form Hierarchy and Entry/Expansion of the Non-State Sector. Economics of Transition, 1(2), 135-170.
Berglöf, E., & Roland, G. (1997). Soft budget Constraints and Credit Crunches in Financial Transition. European Economic Review, 41(3-5), 807-817.

the most successful ones. In the former Soviet Union, for example, the economy was vertically integrated with each region specializing in a few lines of production. Another line of research argues that China's Communist Party is not controlled by any interest groups, so decisions by the ruling party are neutral. This neutral type of governance has benefitted China's economy. These points provide extremely effective analyses of China's institutional setup.

In our report, we take a different approach. We ask ourselves: are there general economic textbook principles that we can learn from China's economic reform and opening up? Are there common principles of rapid economic growth that were also at play in other economies during periods such as the British Industrial Revolution, the US economic emergence after the Civil War and Japanese economic growth, that we might have forgotten or ignored? Are there general economic principles at the policy level that other countries can learn and/or duplicate? These are the questions we attempt to address in this report.

In order to accomplish our goal, the Academic Center for Chinese Economic Practice and Thinking of Tsinghua University formed a research team consisting of faculty members from Tsinghua University as well as research fellows and Ph.D. students. We believe that we need to go to the grassroots level to obtain first hand and detailed knowledge. We made several field trips to representative areas of China, such as the province of Jiangsu, which has the highest per capita GDP and second largest economy among Chinese provinces. We visited two cities in Jiangsu: one in the northern part of the Yangtze River and another in the southern part, which is traditionally more dynamic and enterprising. We also visited "China's Detroit", the city of Shenyang, which suffered tremendous pains from China's opening up. Shenyang was the industrial capital of China and received the most Soviet Union industrial support in the 1950's. At one time, there were 1400 state owned enterprises under the municipal government of Shenyang; today, only 26 survive. In addition to these field trips, we interviewed dozens of officials in the central government who experienced and participated in the process of the reform and opening up, including officials retired or active from the National Development and Reform Commission, the Ministry of Finance, the Central Bank, the Chinese Banking and Insurance Regulatory Commission, the Ministry of Urban and Housing Development, and the Ministry of Natural Resources, as well as other entities. They provided significant insights into the process of decision making and the reform process. In addition, we also examined a huge number of volumes of documents written by policy makers, including speeches of senior leaders such as Deng Xiaoping, Chen Yun, Jiang Zemin, Xi Jinping, Zhu Rongji, etc.

There are two important caveats we would like to express before summarizing our findings. First, by no means do we claim or believe that China's economic reform has been a complete success. Indeed, there are many areas of China's economic system that need to be further reformed. We further acknowledge that Chinese decision makers also made wrong decisions in many areas. The purpose of our exercise is to determine what China did correctly and which steps China still needs to take to improve and progress. For example, in our study of opening up, we concluded that in the past decade, China has not continued opening up as the policy was originally planned and that the process of opening up should have been more rapid. As a result of recent decisive moves by senior Chinese leaders, the pace of reform plus the re-opening process has finally increased. The second caveat is that we attempt to refrain from ideological labeling and the ongoing political disputes between China and some Western nations. We try to remain in the domain of economics, and try to understand and explain the general principles behind China's economic reform and opening up.

We summarize that there are five basic lessons from China’s 40 years of reform and opening up.

The first lesson is that in order to have rapid economic growth, it is necessary to facilitate the fast entry and development of new firms. And in order for new firms to start up you need a positive market and business environment. But often, market imperfections exist, and local governments hold the key to resolving these imperfections. The governments need to be pro-business and in order for this to happen, government officials need to be incentivized. They have to support and assist new enterprises in the resolution of any issues including the use of land, hiring labor and clearing licenses. Even in the US new businesses encounter issues such as those involving highly skilled labor through immigration, issues which have to be resolved through relaxing immigration policies. For example, in Silicon Valley, high housing prices, which in turn increase labor cost, is another issue that needs to be resolved by local governments. The key lesson from China is that local government officials have to be incentivized to help new local businesses, and incentives in the Chinese case comes in both political and economic forms. The political incentive emanates from the fact that the promotion of local government officials is based increasingly on local economic performance in comparison with peer governments. In the Chinese case, economic incentives are also important for local government officials because only prosperous local enterprises can provide tax revenues to local governments – especially in early days during which local governments are able to return much of the new tax revenue. They compete with their peers in supporting new enterprises. In the Chinese case, local government officials often establish industrial parks to help attract business investments. Officials managing the industrials parks receive high incentives since their pay is linked to the amount of tax revenue they can generate from businesses.

The second general lesson from China is that rapid land conversion is a key to rapid economic growth, a lesson that is grossly ignored by modern economics. Before a business grows, the business needs to use land which is already occupied. The conversion of the rights of land use from one economic agent to another agent is key.

This process is often tremendously costly because of the expensive nature of Co-Asian negotiations. In the Chinese case, local governments are incentivized and also have the authority to accelerate the process. In the process of land conversion, most of the land for China's economic growth, whether industrial park or residential property markers from the conversion of agriculture, would either be auctioned off by local governments to a developer for housing projects or directly awarded to industrial enterprises at a very low fee. A rapid process of land conversion is absolutely crucial for rapid entry of new enterprises. This was the case in the early days of the British Industrial Revolution during which the government helped industrialists eliminate the commons and forced farmers to work in industry. But in modern economics the ready availability of land is rarely mentioned and implicitly assumed.

The third general economic lesson is that "financial deepening" and financial stability are crucial for economic growth. Financial deepening refers to the phenomenon of households being comfortable and willing to hold increasingly more and more of their wealth in financial assets. And the growth in financial assets outpaced the economic growth. Financial deepening is essential for investment in the real economy because through financial deepening household savings can be transformed into investments through the financial sector. Otherwise, individual savers would be forced to find investors who may or may not know what to do with the investments. In the Chinese case, the volume of financial assets has increased to about four times the GDP. In order to have financial deepening, the financial sectors have to be reasonably stable, otherwise households will not be willing to hold financial assets, they run on banks around or other financial institutions. And financial deepening has to be conducted in local currency. This way local enterprises can borrow domestically rather than borrow from foreign countries, which can create financial instability. In order to maintain financial stability, the central government must be very proactive in dealing with any potential financial risks, especially financial risks associated with commercial banks, because commercial banks attract a large number of small investors. The investors' lack of confidence can easily become epidemic. In the Chinese case, the central government has imposed severe punishments (including the death penalty) on those accused/suspected of behavior that undermined the banking sector. On the other hand, the government has been relatively relaxed regarding the Chinese stock market; no such sentences have been imposed on fraudulent behavior in the stock market.

The fourth economic lesson from China is that learning through opening up is the key for the economy to grow endogenously rather than relying heavily upon foreign capital and technologies. Learning is a key. All economic agents ranging from entrepreneurs and workers to the government must learn. And the most effective mechanism for learning is opening up. Opening up certainly creates opportunities to play up the comparative advantage, but comparative advantage alone is not sufficient as it may trap the economy into low value-added activities. Instead, learning is the most fundamental benefit of opening up. There are numerous examples demonstrating that opening up to advanced market economies enabled Chinese economic agents to learn new business models, learn many management techniques and learn how to develop new markets. However, opening up carries risks as well and the government has to absorb the resulting shocks. China did have problems similar to Detroit but the central government and local governments have worked extremely hard to compensate and help retrain unemployed workers in the outdated industries and tried to assist the municipal government in attracting new businesses and creating new tax revenue. Unemployment is another area in which opening up needs to be managed.

China's opening up was often against the principle of comparative advantage but proved to be successful. For example, the Chinese automobile industry was developed as early as the early 1980s when China’s comparative advantage was to export labor intense products and import passenger cars, rather than developing a local automobile industry for local consumption. China attracted a German auto firm to form a joint ventures and required it to gradually increase the local content of components. The entire industry of automobile parts thrived as the automobile factories helped local parts suppliers produce parts. Following this, related industries began to take off. Again, learning is the key; it is the most fundamental benefit of opening up and is the key for economic upgrading. In comparison to comparative advantage, this was not emphasized enough in economics textbooks. In US economic history, comparative advantage was not at play at all during its industrialization process. During the Civil War, the North opposed free trade. The North wanted to develop its own textile industry instead of sending US cotton to the UK. The UK subsequently blocked technology from the US by prohibiting textile workers from working in the US. But a young British textile engineer named Samuel Slater memorized details of the textile machines and went to the US to help establish America's industrial textile industry. The British regarded Slater as a traitor, but US president Andrew Jackson called him the father of the American Industrial Revolution.

The fifth and final lesson from China's 40 years of opening up is that the central government must proactively manage the macroeconomy during rapid economic growth, which inevitably creates macroeconomic shocks. Sometimes it becomes overheated. Other times, it becomes under cooled. In the Chinese case, we found that there is intense competition among enterprises during the upswing of the macroeconomic cycle. Most of the enterprises wanted to gamble and expand production, because if they can reach the top of the industry, their market powers were secured, and they would have achieved success. However, if they fail to reach the top, they suffer severe losses. It is rational for a new enterprise to gamble, because the expected return is extremely high. This creates an equilibrium of all rushing to investor to be on top, leading to excess investment. On the other hand, when the macroeconomy is very cool, the incumbent industries would be reluctant to exit because if they could survive while waiting for others to leave the market, they would be able to generate profits because their prices would recover. This is like the war of attrition in game theory; the equilibrium creates an outcome of delayed adjustment.

Both the equilibria of the games of rush to stop and the war of attrition are rational from the perspective of individual investors or enterprises. However, from the perspective of the economy as a whole, they are not socially efficient because the process of adjustment takes too long. In the Chinese case, the central government has always been active in managing the macroeconomy. When the economy was cool, the government would force unprofitable enterprises with redundant production capacity to exit by providing subsidies to help absorb unemployment. When the economy was running hot, new projects would be prohibited, and the government would instruct the banks to cut down on loans to industries. In addition, the central government has been utilizing multiple measures, including market-oriented measures such as fiscal policy and monetary policy, and administrative mandates as well as reform measures to deal with macroeconomic cycles. Reform measures during the episode of the Asian Financial Crisis, for example, included measures to kick start the housing market, which grew from almost zero 20 years ago to the world's largest, and also to help universities expand enrollment.

Overall, the main lesson from China's past 40 years of reform and opening up is that proper incentives and behavior of the local and central governments are important for economic growth. Often in economics, one assumes the role of the government or assumes that the government is either benevolent or evil. The reality is far more complicated. The incentives and behavior of the government regarding the economy are critical issues requiring careful studies. In the Chinese case, the government has been a helping hand in facilitating market growth. In the previous episodes of rapid growth, such as the UK Industrial Revolution, the government also played crucial roles, such as converting village commons into industrial plants and therefore inducing farmers to work in factories. But modern economics tends to overlook these early practices.

The remainder of the report is organized in the following manner: Part one examines the lessons regarding rapid entry of new firms. Part two examines the lessons regarding rapid land conversion and the growth and cultivation of the real estate market. Part three examines financial deepening and financial stability. Part four examines opening up as an instrument to accelerate learning and therefore endogenous economic growth. Part five examines proactive macroeconomic management. And the final part summarizes the main findings.

SECTION I

RAPID ENTRY AND DEVELOPMENT OF ENTERPRISES

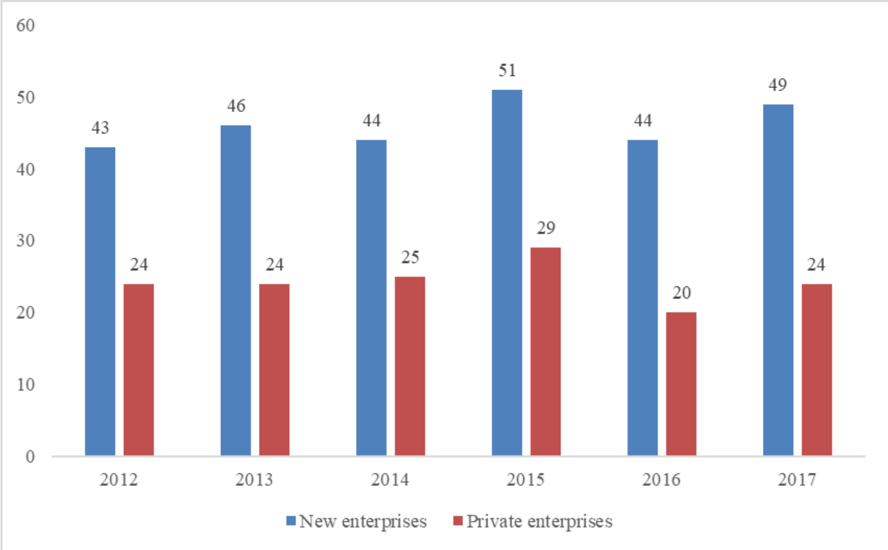
I. STYLIZED FACTS

Governmental assistance in the rapid entry and development of enterprises has been serving as a direct impetus for the rapid economic growth of China ever since the inception of the reform and opening-up drive. The development and thriving of enterprises depend greatly on the role of the "visible hand" of local governments. Governments at all levels, especially local governments, can guide the coordinated development of both upstream and downstream industries by continuously helping new enterprises solve practical problems in terms of land, labor and transportation coordination. Excessive governmental assistance to new enterprises may also bring about some side effects, including overlapping investment, overcapacity and corruption, which can be improved by regulating governmental incentives in the medium to long term.

1. Rapid entry and development of enterprises is the driving force of the Chinese economy

The most important experience in China's 40-year economic reform and opening-up process is that the governments at all levels, especially local governments, give continuous assistance and support to new enterprises to facilitate the rapid entry, development and thriving of enterprises. New enterprises represent new social production demand and resident consumption demand, as well as new production capacity and form of production organization after a higher economic development level is achieved. Well-developed new enterprises can generate remarkable upstream and downstream effects and industrial agglomeration effect, drive the rapid development of local economy, and create substantial tax and employment. Therefore, the rapid entry and development of enterprises has been a direct impetus for the rapid economic development of China since the inception of the reform and opening-up policy.

Chart 1 Number of New Enterprises Established after 1978 Among Top 100 Machinery Industry Enterprises and Private Enterprises Among these New Enterprises

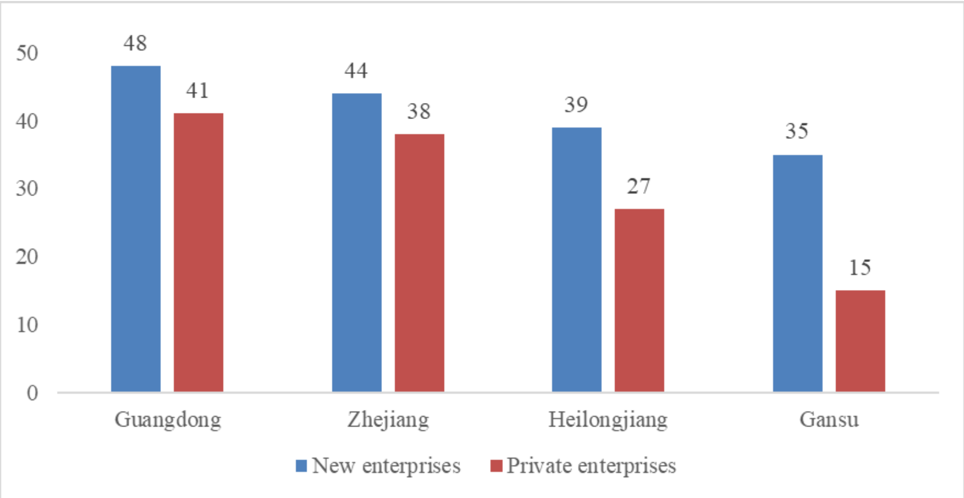


Source: China Machinery Enterprise Management Association (CMEMA)

One important piece of evidence that China's economic development is directly driven by the rapid entry and development of enterprises is the contribution made to China's economic development by those enterprises established after 1978, which marked the commencement of China's reform and opening-up drive. Let's take an example of the top 100 enterprises in the machinery industry announced by EMEMA and GlobalManufacturer.com each year, in the past six years, the enterprises established after the inception of the reform and opening-up accounted for about half of the top 100 enterprises, and these new enterprises had an average ranking significantly higher than that of the enterprises established prior to the initiation of the reform and opening-up, fully illustrating the role of new enterprises in promoting the development of the Chinese economy. In addition, more than half of these new enterprises which have made outstanding contribution to China's industrial development are private enterprises in most years. **This proves that the Chinese Government's assistance to the rapid entry and development of enterprises is undiscriminating. Chinese local governments just attract and help the entrepreneurs, not focusing on industrial policies, and don't favor state owned enterprises over private ones, or, domestic over foreign. The development of both private and state-owned enterprises will be impossible without the support and assistance of the governments at all levels.**

The rapid entry and development of enterprises largely determine the development status of regional economy. Figure 2 shows the number of new enterprises established after the inception of the reform and opening-up among the top 50 enterprises in four provinces, namely, Guangdong, Zhejiang, Heilongjiang and Gansu, in the year of 2017 and the number of private enterprises among these new enterprises (excluding branches of large national enterprises).As can be clearly seen from Figure 2, economically-developed provinces have more new enterprises and private enterprises than less economically-developed provinces, **evidencing that the rapid entry and development of enterprises can to a great extent explain the difference in the economic development between regions.**

Chart 2 Number of New Enterprises Established after 1978 Among Top 50 Enterprises in Different Provinces and the Private Enterprises Among these New Enterprises (Excluding Branches of Large National Enterprises)



Source: Wind database

The third piece of strong evidence is the outstanding contribution made by the rapid entry and development of enterprises to China's economic growth. The new enterprises established after 1978 nearly all of the existing small and medium-sized enterprises. Table 1 shows the rates of contribution made by SMEs to economic growth in some provinces at the last available point in time, and it could be seen that in the provinces with data, SMEs have made very important contribution to the economic growth in the respective regions. As a matter of fact, the rates of contribution by new enterprises to economic growth will be much higher than these data, and their contributions after the inception of the reform and opening-up are not limited to economic growth. Whether from the perspective of employment creation, upstream and downstream industry support or from social welfare, private enterprises have served as the backbone of China's economic development since the initiation of the reform and opening-up.

Table 1 Rates of Contribution by SMEs to Economic Growth

Province	Rate of Contribution	Year
Guangdong	55%	2017
Fujian	～70%	2017
Henan	50%	2017
Shandong	65%	2015
Zhejiang	81.61%	2004-2008
Hubei	53%	2006
Hunan	42.4%	2011

Source: public data

In addition to the three pieces of evidence enumerated herein, there is also plenty of international experience showing that governmental support for the development of new enterprises largely determines the soundness of the long-term economic development of a country. In the 1980s, the Soviet Union and some eastern European countries, which were socialist countries like China, when faced with a choice between heavy industry and light industry and between old enterprises and new ones, chose heavy industry and old enterprises, input a lot of policy and social resources to save these old enterprises and gave priority to the development of heavy industry. Take the Soviet Union for example, at the plenary session of CPSU in April 1985, the then supreme leader of the Soviet Union Mikhail Gorbachev proposed that economic leverage should be used actively to support the heavy industry, in particular the pre-existing machine building industry, and accordingly developed the twelfth five-year plan of the Soviet Union which gave top priority to the heavy industry. However, such attempts to revitalize old enterprises proved unsuccessful, resulting in the further expansion of the Soviet Union's budget deficit and aggravated shortage of consumer goods, further worsening the economic condition of the Soviet Union, and speeding up the collapse of the Soviet Union to a certain extent.

Joseph Alois Schumpeter stated that development is a qualitative spontaneous breakthrough inherent in the economic life, and this spontaneous breakthrough is innovation which is in turn a fundamental driving force for economic development. Innovation is a process of continuously destroying the old structure and creating a new one; to put it simple, it is a process of creative destruction wherein innovative and dynamic enterprises can thrive. During the process, old enterprises are eliminated in droves while new enterprises are emerging in groups, thus facilitating the optimized combination of production factors and promoting steady economic development. Each burst of large-scale innovation will weed out old technology and production systems and instead build a new production system. This theory can be applied to the economic policies of the government, **because new enterprises are better able to seize limited market opportunities, are subject to less restrictions in terms of enterprise transformation and free of various "burdens" inevitable for old enterprises; therefore, in order to promote local economic development to the fullest extent, governments at all levels should allocate limited planning, administrative and financial resources to the rapid entry and development of enterprises and strive to promote economic development and upgrade the production system by facilitating the rapid entry and development of enterprises. Such governmental support for rapid entry and development of enterprises has nothing to do with the political system and ideology of a country and is therefore universal to a great extent.**

In fact, even in the United States which highly advocates economic liberalism, the governments at all levels, especially state governments, spare no effort to help establish and develop new enterprises. At the end of 2014, Tesla, an electric vehicle maker chased by many states, eventually decided to locate its Gigafactory in Nevada. Nevada finally won Tesla's favor mainly because of the low tax policy it offered. In order to attract Tesla to Nevada, in addition to individual income tax and corporate income tax reliefs, the state also released a series of tax preference policies, including refundable credit for employment creation and investment, sales tax relief and property tax relief. Besides, major US technology companies have received various subsidies from their respective state governments. For example, the parent company of Google has received a total of US$762 million in governmental subsidies from the US Government since 2000, and Tesla has even received over US$3.5 billion in subsidies ever since its establishment in 2007.

The incentives provided by various levels of US governments for rapid entry and development of enterprises are not limited to native American enterprises. Aiming at mutual benefit and win-win, Wisconsin and iPhone OEM Foxconn Technology Group signed an agreement. On one hand, Wisconsin State Government would provide Foxconn with up to US$3 billion (later increased to US$3.1 billion) of income and sales tax relief in the next 15 years; on the other hand, Foxconn was expected to bring 13,000 high-paying jobs and US$10 billion investment capital to the state. The governor of the state called the deal a "golden opportunity" and a "change" for the State of Wisconsin. A Chinese pharmaceutical company Aland negotiated with Arkansas on its plan to build a plant in the state. Arkansas State Government said that if Aland could offer 400 jobs, the state government will grant 1,500 mu of land and help the company complete plant construction. Such examples of governmental assistance in the rapid entry and development of enterprises (including foreign enterprises) are not uncommon in the 40-year process of China's reform and opening-up.

2. Governments, especially local governments, have strong incentives to help new enterprises to form and develop

Over the 40 years since the beginning of the reform and opening-up, the Chinese governments at all levels have offered assistance for the rapid entry and development of enterprises that has far exceeded the scope of industrial policy in the traditional sense. In this process of continuous exploration, the governments at all levels take active measures to create conditions for the rapid entry and development of enterprises, proactively carry out close interactions with market players, create a healthy and effective competition environment, and provide support at the key nodes of enterprise development. The government has accumulated much more key experience in helping new enterprises in their rapid entries and development through these practices, and made the best use of the circumstances to lead the entire national economy into a virtuous cycle. Specifically, the government can assist in the rapid entry and development of enterprises in the following ways, including creating a good business environment to attract investment actively and helping enterprises with their restructuring and upgrading in order to achieve institutional innovation.

Firstly, creating a good business environment to attract investment actively.

The government uses its "visible hand" to create a good business environment for the entry and development of new enterprises. On one hand, the government develops macro and regional strategic planning suitable for the rapid entry and development of enterprises, and creates a desirable business environment. On the other hand, the government provides enterprises with or help them obtain the key production factors necessary for their production.

As to local governments, they can play a regulating role in the overall economic layout planning and adjustment of cities and create favorable conditions for the rapid entry and development of enterprises. One prominent case is the "Industrial Relocation and Re-planning Program" of Tiexi District, Shenyang.

At the beginning of 2002, Tiexi District, Shenyang, which has long been dubbed as "Oriental Ruhr", fell into serious development difficulty. Many large state-owned enterprises in the district were in trouble, while a lot of industrial workers in these enterprises had to face the peril of being laid off. Actually, the recession of Tiexi District started at the end of the last century. When the tide of market-oriented reform was surging high across the whole country, enterprises in Tiexi District were still predominantly public enterprises whose economic structure was likewise comprised of industrial economy exclusively. In the district, state-owned economy and collective economy accounted for 99%, and industrial economy accounted for over 90% of the total. As some long-standing state-owned enterprises, such as Shenyang Explosion-proof Equipment Factory, Shenyang Tractor Factory and Shenyang Smelter and Refinery of Nonferrous Metals, declared bankrupt one after another, the reform of Tiexi District became imperative. Under the joint planning and unified support of various levels of governments in Shenyang, more than 240 enterprises based in Tiexi District were successively relocated to Shenyang Economic and Technological Development Zone from the old part of Tiexi District. During this process, the demolished area in Tiexi District reached 5.95 million square meters, and most of the new land was used to develop the service industry. During the relocation process, the government not only played the role as the commander, but it also served as a super developer. The government gave reasonable subsidies to the relocated enterprises accordingly, with the different of land price hitting RMB26 billion. Subsequently, Tiexi District Government carried out reasonable planning, urged relocated enterprises to engage in equipment upgrading and technological transformation, revitalized decaying state-owned enterprises and land resources, and introduced a new development mechanism.

In contrast with Shenyang, the American city Detroit, which is also regarded as an old industrial base, made a different choice when responding to external impact. In the 1970s and 80s, as a huge amount of Japanese cars were exported to the United States, Detroit, widely known as the “Motor City” of the country, underwent great impact, and many automakers and auto parts manufacturers moved out of the city one after another. Faced with external pressure, the City of Detroit Government did not take effective actions to support the rapid entry and development of enterprises, but it instead stepped up the support for existing big enterprises and old ones (automakers such as Ford, GM and Chrysler).This choice failed to change the trend of continuous decline in Detroit’s economy. From 1970 to 1980, the unemployment rate surged to 11.7% from 5.7% and remained pretty high at 8.9% even in 1990.In December 2013, City of Detroit Government officially declared bankruptcy, and the Detroit economy now continues to decline due to the lack of new entrants.

In addition, the government can support enterprises at the macro policy level, and one of the examples is the growth of Geely Automobile. In 2003, Xi Jinping, currently General Secretary of CPC Central Committee and then acting as the Secretary of CPC Zhejiang Provincial Committee, took time to visit Geely’s Linhai Automobile Base shortly after he took office. After listening to the reports by Geely Group Chairman Li

Shufu and CEO Xu Gang, Mr. Xi fully affirmed the achievements of Geely Automobile and highly praised Geely for its efforts in talent cultivation, technological innovation, and independent development and its strategic idea of "making good cars affordable for ordinary people". Mr. Xi pointed out that, "if we do not offer vigorous support to enterprises like Geely, who else will deserve our support? As the only automobile enterprise in Zhejiang Province, it is really a difficult thing for Geely to manage to become a member of "3+6 pattern" amid the fierce competition in the Chinese market and make milestone achievements. In future, we will continue to enhance the policy support for the national automobile enterprises and create a desirable investment environment for private enterprises".[1]

While developing macro planning for the rapid entry and development of enterprises, the government also uses a variety of means to help enterprises overcome the shortage and defects in various kinds of production factors including land and labor. In the early days after the establishment of Brilliance BMW joint venture in Shenyang, Liaoning Province, BMW exercised strict control over the enterprise, controlled the purchasing of the enterprise, and recruited employees by standardized tests. In our survey, a senior leader told us "even a strip written by the mayor will not work for BMW!". Also, BMW proposed detailed and strict requirements for the land used to build the plant. In order to guarantee the flat land required to build the plant, Shenyang Municipal Government used administrative means and fiscal expenditure to remove hilltop, level the land and add traffic lights in the proposed area, build an exclusive railway and provide commuting bus lines for the new plant, and issued land, tax and other related certificates/licenses for the expansion of the plant within merely one day, giving all-round support to BMW. After 2005, Brilliance BMW has become the largest taxpayer in Shenyang for the 12th straight year, directly created more than 10,000 jobs and driven the development of local upstream and downstream industries of an equivalent scale. According to information, in 2016, the automobile & parts industry in Shenyang completed an output of RMB201.86 billion and manufactured 1.061 million complete vehicles in the year. In the next 3 years, Shenyang will also reinforce its efforts to develop new energy vehicles and auto parts industry and accelerate the construction of a number of major projects, with the aim of increasing the production capacity of new energy vehicles to 200,000 by 2020 and building an RMB300 billion worth of automobile & parts industry cluster in Shenyang. Take Shenyang Minghua Mold & Plastic Technology Co., Ltd. for example, its parent company is Jiangnan Mold

[1] people/com.cn/Xi Jinping: who else will deserve our support other than Geely? [EB/OL].http://people.com.cn/GB/jinji/222/2174/2956/20030108/904079.html

& Plastic Technology Co., Ltd. located in Jiangyin, Jiangsu Province, which sets up a production plant in Shenyang in order to provide better ancillary services to Brilliance BMW. The company covers a floor area of 95,000 square meters and currently employs more than 700 employees. The company specializes in the development, production and sale of bumpers, and owns world-class spraying line equipment and an annual production capacity of 600,000 sets of bumpers.

Local governments take initiative to help enterprises out of employment difficulties. In Dongguan, Guangdong Province, manufacturing enterprises tend to face serious labor shortage after the Spring Festival. In order to solve this problem, Dongguan Human Resource Bureau builds a unified recruitment platform to meet enterprises' labor demand after the Spring Festival and alleviate their recruitment pressure, and provide talent support for enterprises. The specific methods used include establishing recruitment points in several regions under the jurisdiction of Dongguan to carry out recruiting activities at fixed locations for a long time, releasing recruitment information via both online and offline channels, arranging for enterprises to recruit workers from other provinces/cities, as well as discussing labor issues with relevant departments in other regions with relatively sufficient supply of manufacturing workforce. A good number of local governments in Guangdong Province has adopted the Dongguan model for recruiting workers to alleviate the recruitment difficulties of enterprises effectively.

In addition, local governments also provide enterprises with numerous preferential policies covering tax benefits, administrative approval and talent training. Firstly, in terms of **preferential tax policies,** unlike the traditional "one size fits all" approach, Jingjiang Government adopts the dynamic assessment approach. Specifically, the local government bases its measurement standard on the annual sales or tax contribution and other dynamic indicators of enterprises and provides some preferential and incentive policies to those top-ranking enterprises, with the aim of attracting enterprises to drive the local economic development and thus generating higher tax revenue for the future development of the region. Secondly, in terms of the **reform of administrative approval system**, in order to fulfill the goal of encouraging the listing of enterprises, Jingjiang Government specially sets up a Listing Office. The setup of the Listing Office, on one hand, helps create a competitive environment for local enterprises to grow bigger and stronger, and on the other hand, helps provide information assistance and guidance on the approval formality issues facing enterprises in their listing process. Moreover, it is noteworthy that, Jiangyin Government innovatively sets up "approval waiter" system to facilitate the administrative approval process of enterprises. Thirdly, **in terms of talent training**, local governments provide learning and training opportunities for enterprises to build up their human capital. Again, take Jiangyin Government for example, back in the 1990s, the government led entrepreneurs to go out and inspect the operation and development model of Huawei.

Secondly, helping enterprises with their restructuring and upgrading.

In order to ensure the sound development of enterprises and bring vitality to the local economy, governments try to create a good environment and also make full use of their own resources to help enterprises with their restructuring and upgrading. To elaborate this kind of assistance, we will enumerate five cases corresponding to Jiangyin Mold & Plastic Technology, Jiangsu Asian Star Anchor Chain, Northeast Pharm, Chengxing Group and Henan Agriculture Investment Group respectively.

Jiangyin Mold & Plastic Technology was established in 1988. It is mainly engaged in the development, production and sale of bumpers and other auto parts, plastic products, molds and high-tech mold and plastic products and possesses an annual production capacity of more than 3 million sets of bumpers. It is a Chinese high-end car exterior trimming parts system service supplier and is included in the list of top 500 Chinese manufacturing enterprises, and plays an important role in the economic development of Jiangyin. At a key stage of its development, the company once faced the problem of lack of foreign exchange needed to purchase equipment, affecting the development of the enterprise. In order to help the enterprise purchase equipment to expand the market, Jiangyin Government boldly used the city's foreign exchange quota to provide guarantee for the enterprise, and helped the enterprise obtain a bank loan of US$2.53 million to purchase imported German equipment. In addition, leaders of Jiangyin Government actively recommended market opportunities to the enterprise, escorted the enterprise's leaders to Shanghai to meet the then leaders of Shanghai Municipal Economic and Trade Commission and Shanghai Volkswagen, creating desirable opportunities for the enterprise to expand its market share.

Jiangsu Asian Star Anchor Chain faced a major adjustment of tax policy in 2007, with the export rebate rate dropping to 5% from 18%, and the enterprise was under enormous pressure of profit decline. In order to help with the development of the enterprise, leaders of the local government actively communicated with the Tax Policy Department of the Ministry of Finance. Asian Star Anchor Chain explained its importance and high added-value in the industry and provided a strong basis for governmental policy adjustments. In January 2008, the Ministry of Finance, the Ministry of Commerce and the State Administration of Taxation issued a *Notice on the Application of Tax Rebate Policies to Old Long-term Trading Contracts*, requiring the application of the original tax rebate policies to the long-term export contracts signed prior to July 1, 2007, thus ensuring the steady development of Asian Star Anchor Chain.

The mixed-ownership reform of Northeast Pharm is exactly an example of governmental role in the critical period of enterprise development. The mixed-ownership reform started in the first ten years of the 21^{st} century; initially, the local government granted fiscal funds of RMB870 million for the relocation of the old factory, but this was far from enough to fulfill the task. In 2017, Shenyang Municipal Government reiterated the plan to introduce a strategic investor. In 2018, the government made a breakthrough in policies and decided that the strategic investor could become the largest shareholder. Under the guidance of this policy, Northeast Pharm decided to introduce Fangda Group as the largest shareholder with a shareholding of 26%, and the latter could dispatch two executive directors and recommend two independent directors. In the mixed-ownership reform, Shenyang managed to break the restrictions of first grade enterprise through indirect shareholding by an industrial investment fund, and created favorable room for enterprise development.

Chengxing Group is the first technology-supported enterprise in Suzhou, and the local government provided generous support for its listing; for example, "to send the documents before Jiangsu Provincial Party Committee started a meeting, Jiangyin Government would hold a meeting till 10:00pm, and send someone to deliver the documents to Yixing for signature and then go to Nanjing before dawn to wait at the door of the office of the competent provincial leader, so that the documents could be signed at 7:45 before the provincial party committee held a meeting to approve the transaction"; "Jiangyin government leaders would contact and recommend the enterprise to the leaders of Yixing and provincial leaders". In 2001, in order to change the pattern "factory manager takes the profit while the enterprises bears the loss", Jiangyin proposed enterprise restructuring. However, due to the huge amount of funds needed, the enterprise was less motivated. Therefore, the city granted RMB24 million, the employees raised 30% of the required funds by themselves, and the remaining amount was to be repaid within five years; this helped obtain direct financial support for the successful restructuring of Chengxing Group.

Additionally, the government can also use innovative means to provide assistance to enterprises. Since its establishment, Henan Agriculture Investment Group Co., Ltd. has always stuck its orientation as "a specialized large-scale agriculture investment group with full-fledged investment and financing functions in the field of governmental agriculture investment, and a comprehensive investment and financing service provider led by the provincial party committee and the provincial government for building a big modern agricultural province". Currently, it has evolved into a large-sized agriculture investment holding group with complete functions and an investment capacity of over RMB200 billion. In line with the principles of "governmental guidance, social participation, professional management and market-oriented operation", Henan Province adopted the method of "converting directness into indirectness, free into paid, and funds into capital"; that is to say, **the government provides fiscal funds and makes use of the power of the company to pool decentralized funds, convert funds into capital and administration into market regulation, so as to make use of funds in a centralized way, guide and lever social capital, and introduce central enterprises and large-sized financial capital and well-known institutions from other provinces to support the agriculture of Henan Province, thus eventually changing the previous administrative allocation of fiscal funds, reducing the direct allocation of resources by the government, and realizing the transformation of government functions.** While attracting social capital, this approach also helped achieve the guiding and amplifying function of fiscal funds. It is known that, the funds already established by the Company reach RMB45.2025 billion, lever social capital of RMB82.053 billion, and amplify fiscal funds by 7.73 times.

Industrial funds can support enterprises by market-based means, improve their financing capability, regulate their operation and management, help them introduce strategic resources, and effectively enhance the endogenous impetus and quality of enterprise development. At the same time, the company selects and invests in projects according to fully market-oriented standards and exit projects at good timing likewise. This can not only help the enterprises but also achieve appreciation of capital. For example, in 2017, the comprehensive agricultural development fund brought another RMB600 million of social investment to the invested enterprises; wherein, after making an investment in Sunwood Lvyuan, the fund drove a direct investment of RMB70 million from other social capital, effectively promoting the supply chain construction and rapid development of the enterprise. In addition, the company regards investing in leading enterprises as a key to driving the industry by investments, comprehensively applies a variety of investment and financing means, and gives priority support to industry-leading enterprises in such sectors as planting and processing, cotton spinning and manufacturing. At the same time, the company builds a group-wide collaboration platform and mechanism to integrate resources to make investments in major projects.

Take the development of Lotus Flower Gourmet Powder for example. From 2004, Lotus Flower Gourmet Powder began to have difficulties in its operations and faced the risk of collapse, and tens of thousands of employees were at the verge of unemployment, bringing about a lot of destabilizing factors to society. During 2004-2006, according to the provincial government's requirements for aiding Lotus Flower Gourmet Powder, Henan Agriculture Investment Group dispatched personnel and injected funds in aid of Lotus Flower Gourmet Powder, and carried out several all-round bailout measures. The aim was to give full play to the role of the government as an investor, protect the enterprise brand and maintain its steady development. To some extent, Henan Agriculture Investment Group began to buy into Lotus Flower Gourmet Powder at the most difficult time of its development, provided the enterprise with substantial financial support to avoid its bankruptcy, and ensured the stable operation of the enterprise by means of asset restructuring and reorganization, thus fully playing its role as a policy-oriented investment company.

3. Side effects of overzealous government

On the whole, governmental assistance in the rapid entry and development of enterprises plays a direct role in driving the economic growth of China, and the government has greatly promoted the rapid development of the Chinese economy through the "visible hand". **But we need to realize that, there are undoubtedly some irrational decisions when the government is helping with the rapid entry and development of enterprises. Excessive governmental intervention in the economic development has also caused some ineffective allocation of resources and distortions, and exerted some side effects on the economic development.** Some prominent ones of these side effects include excessive investment, overcapacity and corruption.

Firstly, excessive investment and overcapacity. In developing regional economic development planning and making decisions on selecting industries and enterprises for support, local governments often base their important judgments on the macroeconomic hot spots and policy orientation for the time being but give less consideration to whether other regions at the same level will select the same industries and development planning. At the national level, this will be reflected in the repeated construction of and excessive investments in the same industry or similar enterprises (mostly industrial enterprises) in different regions, resulting in problems of overcapacity and high industrial concentration in the entire macro economy. Specifically, following are some noticeable examples: currently, China has over 1,400 steel enterprises, with more than 40 in each province on average; after the overcapacity cut commenced in 2016, the current output of China's steel industry is still approaching 800 million tons, accounting for over 40%

of the global steel output, with a capacity utilization rate of 77%; meanwhile, China now has a total of 2,143 automobile manufacturers, and almost every one of the 34 provinces, municipalities and autonomous regions has an automobile enterprise of its own; more than half of all the provinces and municipalities have some electrolytic aluminum enterprises, and the national electrolytic aluminum output accounts for 56% of the global output, in contrast with a capacity utilization rate of merely 75%.From the perspective of the overall economy, such overlapping investments are relatively inefficient. The resulting low industrial concentration might give rise to waste of resources, slow technological advancement and many other problems.

Another side effect of excessive governmental intervention is breeding corruption to some extent. The overall support that a local government can give to new enterprises is relatively limited, but the number of new enterprises and entrepreneurs wishing to enter the local market is huge; therefore, while the local government is creating the business environment and choosing new enterprises for receiving various kinds of support and assistance, even if the government aims to help new enterprises and promote local economic development, a certain degree of corruption and power rent-seeking will inevitably arise in the actual operations. **What needs to be emphasized is that, the corruption in China is different from the corruption in such countries as India and Russia in that, for the sake of political and economic incentives, local governments are much concerned about the local economic development, and leaders of local governments are really motivated to improve the local economic development level; corruption might to some extent affect but will not completely distort local governments' support for new enterprises, therefore, corruption has a less adverse effect on the economic development.**

II. History Overview

In order to better understand the contribution of government to the rapid entry and development of enterprises since the inception of the reform and opening-up, and make an economic summary. In this section, we will review five stages that have significant influence on enterprise entry over the forty years of reform and opening-up: **(1) a sudden emergence of the township and village enterprises (TVEs) from 1984 to 1994; (2) privatization of TVEs from 1995 to 2002; (3) the reform of state-owned enterprises (SOEs) featured by "grasping the large and letting go of the small" from 1998 to 2000; (4) active investment promotion by all levels of governments**

from 1992 to 2012; (5) business environment improvement featured by "streamlining administration, delegating powers, strengthening regulation and improving services" from 2013 to present. We review this process through data, policies, and leaders' speeches, in conjunction with a large number of cases.

1. A sudden emergence of the township and village enterprises (TVEs) from 1984 to 1994

In the 1980s, a host of township and village enterprises (TVEs) emerged in the broad rural areas of China and played a significant role in driving the regional and national economic development. In the Yangtze River Delta and Pearl River Delta regions, TVEs accounted for one third of the local GDP. In the 1990s, TVEs accounted for one third of foreign exchange earned through export on a national scale.

The predecessors of township and village enterprises are commune and brigade run enterprises, which are collectively-owned enterprises established before reform and opening-up. Since 1978, along with the rural reform, a lot of rural labor was freed from fettering of land. In order to assimilate rural labor while increasing collective income, improving the livelihood of commune members and speeding up the industrial development in China, in 1978, the Third Plenary Session of the 11th Central Committee of CPC proposed that "a big progress should be made for commune and brigade run enterprises". In July 1979, the State Council issued the *Provisions of the State Council on Several Issues Concerning the Development of Commune and Brigade Run Enterprises (Draft for Trial Implementation)*, requiring planning, capital construction, transportation, science and technology and other relevant departments to actively support the development of commune and brigade run enterprises and implement preferential tax policies for these enterprises.[2] During 1978 to 1983, the number of employees at commune and brigade run enterprises was increased to 32.35 million from 28.21 million, and the output value was increased to RMB101.7 billion from RMB49.3 billion.[3]

[2] According to the document "All walks of life must make it an important task to support the development of commune and brigade run enterprises, develop plans and put forth measures to contribute to the great development of commune and brigade run enterprises." "Commune and brigade run enterprises are subject to income tax at the proportionate tax rate of 20%." For details, please refer to pkulaw website, 1979: *Provisions of the State Council on Several Issues Concerning the Development of Commune and Brigade Run Enterprises (Draft for Trial Implementation)*, http://pkulaw.cn/fulltext_form.aspx?Gid=555&Db=chl [2018-11-15] .

[3] Zhou Shulian, et al., 1996, *Research on the Coordinated Economic and Social Development of Urban and Rural Areas in China*.

During 1984-1988, township and village enterprises reached the first peak of development. In 1984, *the No.4 Document of the CPC Central Committee*[4] officially renamed "commune and brigade run enterprise" as "township and village enterprise". TVEs were also regarded as "an important approach for farmers to achieve common prosperity and an important source of national fiscal revenue". Governments at all levels and their agencies were required to support the development of township and village enterprises.[5] According to the document "we (governments) should focus on supporting the survival and development of TVEs, and only in this way can we increase the fiscal revenue steadily and persistently in the long run." The subsequently *No.1 Document of the CPC Central Committee in 1985, No.1 document of the CPC Central Committee in 1986 and No.5 Document of the CPC Central Committee in 1987* also put forth a series of favorable policies for TVEs.

In this period, different TVEs development models emerged, such as "Su'nan Model", "Wenzhou Model" and "Pearl River Model". Take "Su'nan Model" for example, at the end of 1983, sociologist Fei Xiaotong, after his survey into the Su'nan region (consisting of Suzhou, Wuxi and Changzhou), proposed the "Su'nan Model" for the first time in his article entitled *Re-exploring Small Towns*. He defined the "Su'nan model" as "a rural economic development path focusing on developing industry and collective economy, market regulation, and the direct leadership of county and township governments." Its main organization form was that, township governments would organize land, capital, labor and other production factors and designate able persons to act as principals of enterprises. Professor Jean C. Oi of Stanford University, after investigating the development history of TVEs in Su'nan region, generalized this practice of direct governmental participation in economic operation and intervention in enterprise operation as "Local State Corporatism" model. She believed that local governments have taken on many characteristics of a business corporation, with officials acting as the equivalent of a board of directors[6]. At the initial stage of the

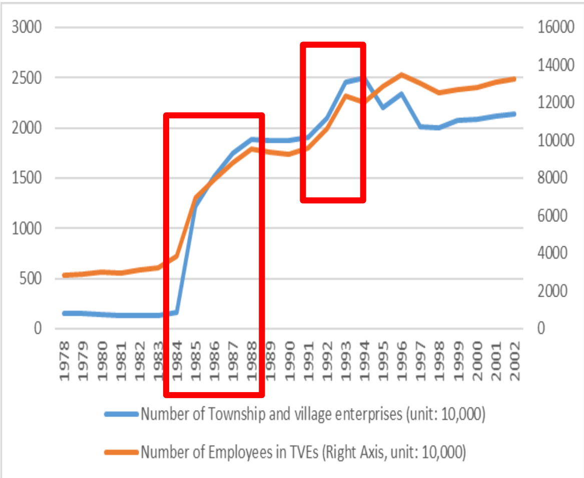
[4] The full name of the document is *Notice of the CPC Central Committee and the State Council on Forwarding the Report of the Ministry of Agriculture, Animal Husbandry and Fishery and Ministerial Party Group on Creating a New Situation for Commune and Brigade Run Enterprises*.

[5] According to the document "The party committees and governments at all levels should actively guide the development direction of township enterprises, and manage them according to relevant national policies to enable them to develop soundly. We should treat township enterprises and state-owned enterprises equally and give them necessary support." "the planning, materials, finance, banking and transportation departments at all levels should create accounts for commune and brigade run enterprises and give guidance and support to them." For details, please refer to chinalawedu website, 1984: *Notice of the CPC Central Committee and the State Council on Forwarding the Report of the Ministry of Agriculture, Animal Husbandry and Fishery and Ministerial Party Group on Creating a New Situation for Commune and Brigade Run Enterprises*, http://www.chinalawedu.com/falvfagui/fg22016/275.shtml [2018-11-15] .

[6] According to Professor Jean C. Oi "Local government has taken on many characteristics of a business corporation, with officials acting as the equivalent of a board of directors." "By local state corporatism I refer to the workings of a local government that coordinates enterprises in its territory as if it were a diversified business corporation." For details, please refer to *Oi, J. (1992). Fiscal Reform and the Economic Foundations of Local State*

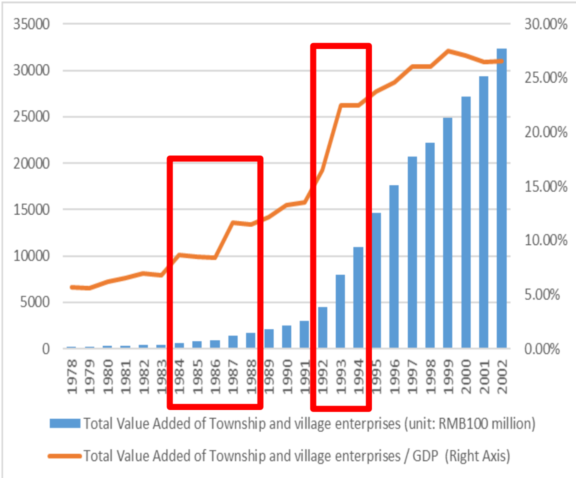
transition from planned economy to market economy, this approach, where local governments directly mobilized and organized production, could organize various production factors rapidly at low cost, thus greatly accelerating the progress of enterprises' access to the market.

Chart 3 Number of Township and village enterprises and Number of Their Employees during 1978-2002 (unit: 10,000)



Source: China's Township and village enterprises Yearbook 1978-2002

Chart 4 Total Value Added of Township and village enterprises and Proportion in GDP during 1978-2002 (unit: RMB100 million)



Source: China's Township and village enterprises Yearbook 1978-2002

In this period, TVEs across the country developed rapidly. In 1987, the output value of township and village enterprises surpassed agricultural output value for the first time. Deng Xiaoping, in a meeting with foreign guests, said that "the biggest gain that we did not expect at all is that TVEs have developed[7]." Up to 1988, the township and village enterprises reached a number of 18.88 million, employed 95.46 million people and generated a total revenue of RMB42.33 billion. From 1984 to 1988, the number of township and village enterprises rose by 52.8%, the number of employees by 20.8%, and the total revenue by 58.4%, all on an average annual basis.[8] A wide array of industry-leading enterprises was established during this period, such as Huaxi Village (known as Number One Village Under The Sky), Chengxing Group (China's largest fine phosphorous chemical manufacturer), Jiangyin Mold Plastics Group

Corporatism in China. World Politics, 45(1), 99-126. doi:10.2307/2010520. "Village, township, and county make up the local corporate state directly responsible for the dramatic growth of rural enterprises in China." For details, please refer to *Oi, Jean C. Rural China Takes Off: Institutional Foundations of Economic Reform. Berkeley: University of California Press, 1999. http://ark.cdlib.org/ark:/13030/ft8j49p1hv/*

[7] Liu Bin, et al., 2004, *Report on China's Agriculture, Rural Areas and Farmers*.

[8] National Bureau of Statistics, 1999: *A Sudden Emergence of the Township and Village Enterprises,* http://www.stats.gov.cn/ztjc/ztfx/xzg50nxlfxbg/200206/t20020605_35964.html [2018- 11-14].

(China's largest car bumper manufacturer), Fasten Group (China's largest metal products manufacturer), Jiangsu Sunshine Group (China's largest worsted textile enterprise), Shenda Enterprise Group (China's largest flexible plastic packaging base), and so on…

From 1989 to 1991, township and village enterprises entered a three-year period of improvement and rectification. During this period, the government restricted the loans to TVEs, reduced tax preferences, cut down capital construction scale, and closed down enterprises with poor economic efficiency and serious pollution.

After Deng Xiaoping's South Tour Speeches in 1992, township and village enterprises embraced the second peak of development. During this period, the central government promulgated a series of policies in support of the development of TVEs, such as *the No.19 Document of the State Council (1992)* and *No.10 Document of the State Council (1993)*. According to these documents, TVEs played an important role in economic growth, and "governments at all levels and their agencies should actively serve the development of TVEs while providing services to large and medium-sized state-owned enterprises. ""tax departments should apply preferential tax policies to TVEs in the central and western China, and foster tax sources by growing township and village enterprises." [9] Desirable external environment coupled with improved internal management enabled rapid development of TVEs. From 1992 to 1994, the total output value of TVEs increased by 1.4 times, net profit by 1.3 times, the profit per RMB100 of fixed assets by 48.6%, the profit per RMB100 of capital by 25%, the working capital occupied per RMB100 of operating revenue declined by 16.8%, and per capita profit and tax more than doubled. [10]

2. Privatization of TVEs from 1995 to 2002

At the early stage of transition from planned economy to market economy, the government-dominated development model of township and village enterprises did speed up the entry and development of township and village enterprises. However, commencing in mid to late 1990s, as the opening-up deepened plus the impact from the Asian Financial Crisis, many TVEs were struggling to survive, so it would be an inevitable choice of the government to loosen the control over enterprises. Lu Yongjun, the former Deputy Director of the Bureau of Township and Village Enterprises of

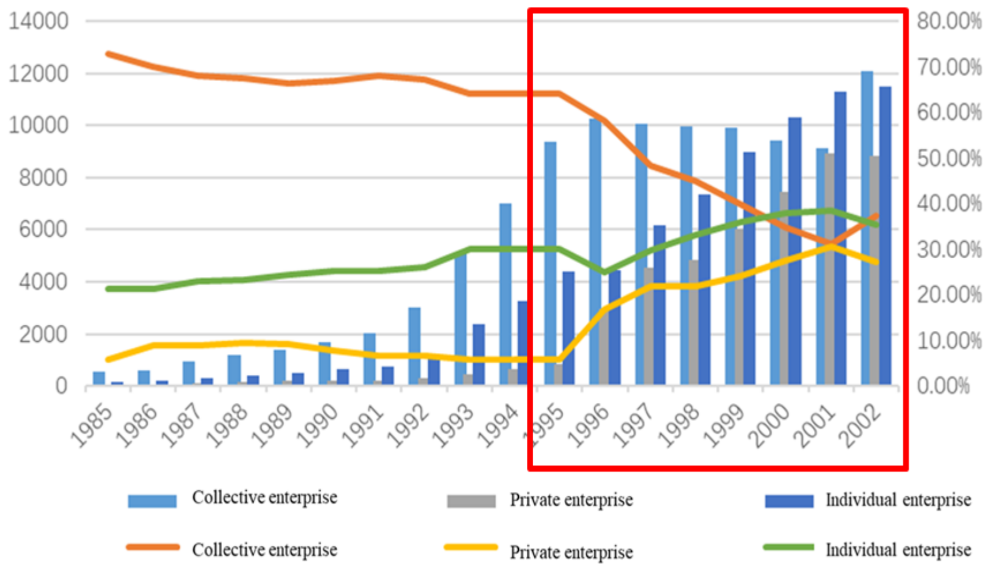
[9] Ministry of Commerce of People's Republic of China, 1993: *Decision of the State Council on Accelerating the Development of Township Enerprses in Central and Western China,* http://www.mofcom.gov.cn/article/b/bf/200207/20020700031377.shtml [2018- 11-14].

[10] National Bureau of Statistics, 1999: *A Sudden Emergence of the Township and Village Enterprises,* http://www.stats.gov.cn/ztjc/ztfx/xzg50nxlfxbg/200206/t20020605_35964.html [2018- 11-14].

Ministry of Agriculture described the situations at that time like this: "due to unclear property right and integration of government and enterprise functions, TVEs had an apparent lack of competitiveness in terms of decision-making mechanism, employment mechanism, operation mechanism, distribution mechanism and market resilience, compared with foreign enterprises and individual private enterprises. Therefore, at that time, some enterprises had too much debts, and some others even suffered losses or went bankrupt. To get out of trouble, the only choice left was to reform TVEs fundamentally."[11]

The mid to late 1990s witnessed the inauguration of a government-led privatization reform of TVEs, and a large number of enterprises originally owned by the government were sold to individuals in various forms. Although back in 1984, some regions had already begun their attempts to privatize TVEs, the progress of privatization on large scale began to gain speed really in 1997. On March 11, 1997, the *Notice of CPC Central Committee and the State Council on Forwarding the Ministry of Agriculture's Report on the Situations of China's Township and village enterprises and Future Reform and Development Opinions* was released, which gave top priority to the ownership reform.

Chart 5 Value Added of Various TVEs and Their Proportion during 1985-2002 (unit: RMB100 million)



Source: China's Township and village enterprises Yearbook 1978-2002

[11] Sina Finance News, 2007: *Full History of Township Enterprises,* http://finance.sina.com.cn/g/20070424/13483534098.shtml [2018- 11-14].

There were three privatization models for TVEs, as follows: shareholding system for large-sized enterprises, joint stock cooperative system for small and medium-sized enterprises, while small or loss-making enterprises would restructure elements by means of leasing, auction, conglomeration, merger and bankruptcy. According to the statistics of the Ministry of Agriculture, **by 2006, 95% of the 1.68 million township collective enterprises across the country underwent privatization ownership reform, wherein, 200,000 enterprises were converted into joint stock enterprises and joint stock cooperative enterprises, and 1.39 million enterprises were converted into individual enterprises and private enterprises.**

Take Su'nan region for example, before the mid-1990s, the TVEs in the region were predominantly collective enterprises. In 1995, the employees and value added of private individual enterprises accounted for merely 11.02% and 4.01% of those of all the TVEs. Whereas, collective enterprises accounting for a higher proportion were faced with general losses and high debts. In Jiangyin (a county-level city in Su'nan region), 70% of the 30 large-sized collective enterprises in the city went bankrupt, urging the local government to make its mind to stage an ownership reform. As the central government gradually liberalized the policy on private economy, local governments also streamlined the approval procedures to encourage private individual enterprises to enter the market, and also helped collective enterprises finish the ownership reform. A host of subsequent industry leaders, such as Hongdou Group, Mold Plastics Group and Chengxing Group, completed their ownership reforms during this period. By the end of 2001, the ownership structure of TVEs in Su'nan region has changed dramatically: private individual enterprises accounted for about 92.65% of all the enterprises, their employees accounted for 64.91%, and their valued added accounted for 54.39%.

3. The reform of state-owned enterprises (SOEs) featured by "grasping the large and letting go of the small" from 1998 to 2000

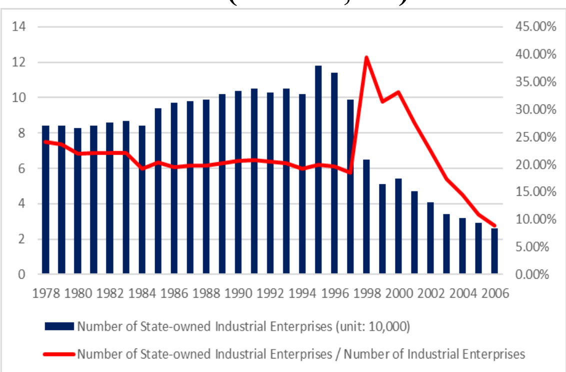
Before the starting of the reform and opening-up, under the planned economy system, the government uniformly issued plans, arranged employment, and allocated resources to SOEs. Therefore, SOEs had no autonomy in management and had been operating inefficiently for a long time. In 1993, the central government proposed the plan to build a socialist market economy system.[12] Along with the economic reform, many SOEs struggled to live in the face of competition from the foreign enterprises and

[12] According to the Report of the Third Plenary Session of Fourteenth CPC Central Committee

TVEs. In 1997, almost one third of state-owned enterprises suffered losses, one third made a profit, and the remaining one third could merely make ends meet. The outbreak of Asian Financial Crisis in 1997 made the problem of SOEs become more prominent.

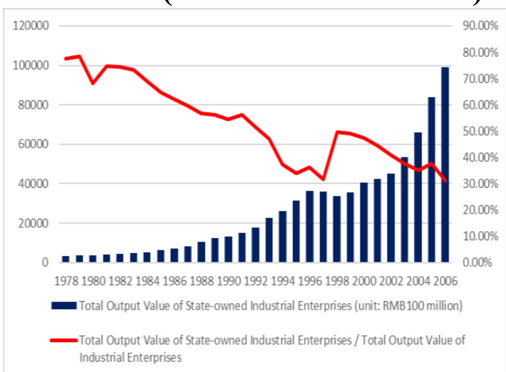
Under such circumstance, the new elected Premier of the State Council Zhu Rongji said on March 19, 1998 that, "we should use three years or so to get most of loss-making large and medium-sized SOEs out of their plights and establish a modern enterprise system", hence the "three-year bailout of SOEs" started. During this period, "grasping the large and letting go of the small" became the basic principle guiding the SOE reform, meaning that on one hand, concentrated efforts should be made to gain control over a host of large-sized SOEs, and on the other hand, we should liberalize small and medium-sized SOEs. This was mainly done by taking a series of policy measures such as debt-to-equity swap, interest subsidy for technological transformation and policy-based closure and bankruptcy. The main purpose for the reform is to lighten the burdens on enterprises, promote technological advancement and industrial upgrading of enterprises, and promote the survival and elimination of SOEs.

Chart 6 Number of State-owned Industrial Enterprises during 1978 – 2006 (unit: 10,000)



Source: China Statistics for 55 Years and China Statistical Yearbook 2006 and 2007

Chart 7 Total Output Value of State-owned Industrial Enterprises during 1978 – 2006 (unit: RMB100 million)



Source: China Statistics for 55 Years and China Statistical Yearbook 2006 and 2007

From 1998 to 2002, breakthroughs were made in three aspects of the SOE reform: (1) more than one million small and medium-sized SOEs were restructured and removed from the public ownership system; (2) through policy-based closure and bankruptcy of distressed large and medium-sized SOEs, more than 5,000 distressed enterprises exited the market; (3) through the reemployment center and basic security line policies, nearly 30 million laid-off workers were resettled, thus establishing a mechanism for SOE employee turnover.

4. Active investment promotion by all levels of governments from 1992 to 2012

The period from 1978 to 1992 represented the initial exploration stage of the investment promotion in China. During this period, China mainly took foreign direct investments (especially investments from Hong Kong, Macao and Taiwan) in small scale, and these investments were mainly concentrated in several special economic zones and open coastal port cities. Local governments were generally skeptical of investment promotion.

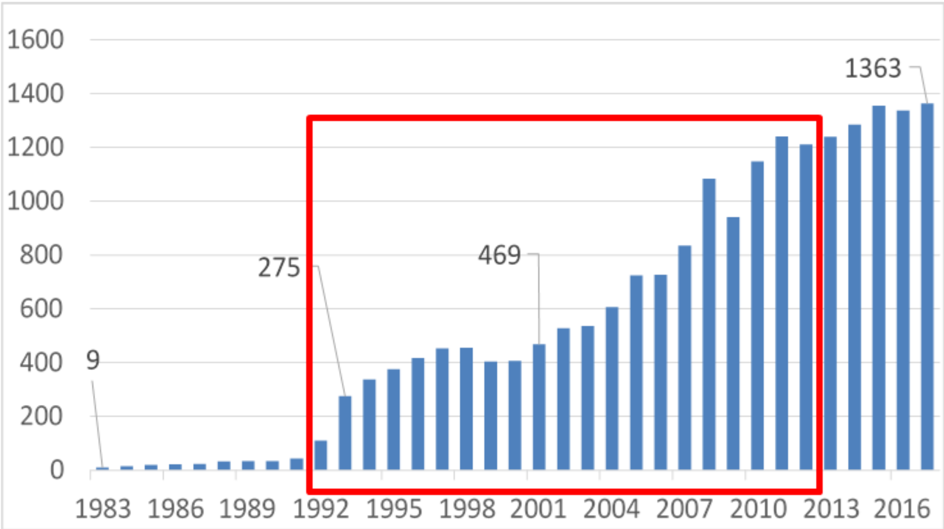
The period from 1992 to 2002 represented the stage of rapid advancement in China's investment promotion. At this stage, local governments gradually replaced the central government as the main force in investment promotion. This was mainly due to the tax system reform, where local governments had greater economic management authority and fiscal pressure alike, and the motivation mechanism for local governments to promote local economic development came into being initially. Due to the incentives of both political and economic benefits, investment promotion became a priority of the work of local governments. Some local governments regarded investment promotion as a "top leadership project" [13], arranged for governmental officials to participate in investment promotion seminars and workshops, announced achievements of investment promotion on newspapers on a regular basis, and even linked the amount of investment attracted directly to the income and promotion of cadres. Some governments established various kinds of economic parks, introduced preferential policies, and set up institutions to be specifically in charge of the formulation and implementation of investment promotion policies.

During this period, the governments promoted investment mainly by establishing various industrial development parks or economic parks, and investment scale there rose sharply. In 1984, the central governmental approved the first economic park. By 2002, there had been 5,000 of them, including development zones, hi-tech industrial development parks, export processing zones, bonded port areas, logistics industry parks and higher education parks, etc. These economic parks took advantage of various preferential policies and led regional investment promotion activities in different fields. Take Suzhou Industrial Park for example, up to 2002, it introduced a total of 105 foreign enterprises, with foreign direct investments totaling

[13] People's website, 2018: *What is the secret of investment promotion? 13 district party committee secretaries and district mayors tell stories about investment promotion,* http://hb.people.com.cn/n2/2017/0217/c194063-29727829.html [2018- 11-14]. Tieling city news,2018: *Investment Promotion Acievements by Tieling,* http://www.tielingcn.com/2018/0614/226037.shtml [2018- 11-14]. Yining city news, 2018: *Investment Promotion Acievements by Yining*, http://www.sohu.com/a/257487807_183787 [2018- 11-14].

US$16.1 billion and the total output value of the park reaching RMB25.2 billion. In 2002, China actually used foreign direct investments of US$52.7 billion, 12 times of the figure in 1991.

Chart 8 Amount of Foreign Investments Actually Used by China during 1983-2017 (unit: US$100 million)



Source: the Ministry of Commerce

After 2003, China's investment promotion efforts proceeded to the stage of optimization and adjustment. In the work at the previous stage, local governments scrambled to attract investors with more tax rebates and lower land prices, resulting in vicious competition, overlapping investment, waste of resources, among other problems. In response to these problems, the State Council issued the *Notice of the General Office of the State Council on Straightening and Rectifying Land Use in Construction of Various Development Zones* in 2003, started to straighten out and rectify various kinds of economic parks, reduced the number of economic parks to 2,065 and the total planned area to 14,000 square meters, with the aim of guiding local governments to attach greater importance to the quality and efficiency of introduced investment projects given limited land supply.

Up to this day, investment promotion is still an important part of the overall work for local governments. However, unlike the extensive investment promotion pattern before, local governments today will pay more attention to the "investment per acre", "GDP per acre" and "tax per acre" of projects when attracting investments, and will attach greater importance to the quality and efficiency of the projects introduced. At the same time, the focus of investment promotion also shifts from foreign investment to the combination of domestic and foreign investments, from secondary industry investments to tertiary and primary industry investments. Also, the carriers of investment promotion are not limited to various economic parks. Some new investment promotion models arise, such as investment promotion in industrial chain, enterprise-led investment promotion and PPP.

5. Business environment improvement featured by "streamlining administration, delegating powers, strengthening regulation and improving services" from 2013 to present.

Since 2013, with respect to "Fang Guan Fu" Refrom (literally meaning streamlining administration, delegating powers, strengthening regulation and improving services), governments at all levels have taken measures to build a service-oriented government and improve the business environment. Moreover, China established 12 pilot free trade zones in several provinces/municipalities including Shanghai, Guangdong and Hainan, granted them more reform autonomy, and promoted a series of administration streamlining and power delegation measures, such as "negative list management", "separation of certificates from business license" and "one code for one license", in these pilot free trade zones on a pilot basis.

Remarkable achievements have been made within the five years after the reform was initiated: (1) administrative approval items were reduced drastically, departments under the State Council cumulatively cancelled and delegated 618 administrative approval items and completely eliminated non-administrative licensing approval items; **(2) taxes and fees were reduced sharply,** the government gradually expanded the scope of replacing business tax with VAT, and cancelled, terminated or exempted more than 1,100 administrative service fees at the central government and provincial government levels, and cumulatively released market players from burdens of over RMB3 trillion; **(3) a large number of new market players emerged**: over these five years, the number of various market players increased by nearly 80% and has now exceeded 100 million, including more than 31 million enterprises; and many individual businesses are developing towards enterprises;[14] **(4) business environment was greatly improved**, according to the *the Ease of Doing Business Index* issued by the World Bank, the China was ranked 46th among 190 economies in the world, up by 32 places compared with last year.

The behaviors and interest of local governments have also changed. As Premier Li Keqiang said at the meeting of the State Council held on January 3, 2018:

[14] The State Council, 2018: *Speech by Li Keqiang at the national video and telephone conference themed on deepening "delegation of powers, regulation and service" reform and transforming government functions,* http://www.gov.cn/xinwen/2018-07/12/content_5305966.htm [2018- 11-14].

"In recent years, when I visited provinces, I have found that more and more officials are not just focusing on serving a few enterprises, rather they are trying to improve the local business environment."

III. ECONOMICS ANALYSIS

Based on the abovementioned basic facts and history of enterprise entry and development, we arrive at the following two conclusions economically: firstly, during the process of the reform and opening-up, incentives to governments for cultivating and helping enterprises are of utmost importance for enterprise entry and development; secondly, since local governments are subject to blindness and limitation to some extent, they might make some irrational decisions in helping with enterprise entry and development. Therefore, corresponding restrictive system should be put in place to regulate local governments' behaviors in helping with enterprise entry and development.

1. The incentives of local governments are critical

The incentives offered to governments for cultivating and helping enterprises have a direct bearing on the behaviors of governments during the process of enterprise entry and development as well as the resulting effect. **By summarizing the process of enterprise entry and development history in the 40 years of China's reform and opening-up, we believe that political and economic incentives are two important dimensions for local governments to promote enterprise entry and development. Wherein, political incentives are directly linked to promotion of officials, while economic incentives are directly linked to taxation, both having a significant effect on enterprise entry and development.**

(1) Political incentives motivate local governments to offer help for enterprise entry and development

Political incentives to governments for helping with enterprise entry and development are derived from the continuous promotion motivation of local government officials. The wider scope of powers and higher sense of personal achievement arising from promotion usually make officials do their utmost to keep their positions, and even scramble for all possible opportunities for constant promotion, and this becomes a common choice of local officials. **It is on the basis of the continuous**

promotion motivation that local government officials often have their actions guided by the promotion appraisal indicators and explore how to stand out of appraisal and win competitive edge. In a pretty long time since the inception of China's reform and opening-up, a key factor for the promotion of local officials is political achievement, i.e. local GDP growth. Therefore, **it becomes an important choice of local governments to take initiative to help with enterprise entry and development.**

i) Political tournament is an important cause driving local governments to help enterprises.

Since the early 1980s, the selection and promotion standard for local officials in China have shifted to economic performance indicators from pure political indicators in the past, and this shift is highlighted in local GDP growth; whereas, a key factor in the promotion of local officials is political achievement, resulting in local officials' pursuit of GDP. **For the sake of political achievement, in line with the evaluation of various measurable indicators, local officials scramble for breakthroughs in the competition level by level starting with the grassroots level, with the aim of getting promoted.** At the same time, according to the promotion tournament model of local officials built by Professor Zhou Li'an, local officials are promoted to higher positions if they can outcompete their peer regions in GDP growth.[15] Therefore, **in order to obtain advantage in the political tournament, local governments tend to make every effort to help with enterprise entry and development.**

The case is very different in the United States. The most important reason why local governments want to help enterprise entry and development is election. For instance, in order to keep local sports clubs, US municipal governments often spend a great amount of money to subsidize for baseball fields, football fields, basketball gyms and ice hockey places. In addition, great efforts are made to solve local unemployment problem. In September 2017, Amazon announced a plan to locate a city in the North America to build its second headquarters and expected to invest US$5 billion and provide more than 50,000 jobs. Shortly after the announcement of the news, numerous North American cities offered bids one after another, in the hope of canvassing Amazon, including some well-known cities like Boston, Washington DC, Atlanta, Dallas and Denver. These cities offered various preferential policies in order to win. For example, Governor of New Jersey said that, if Amazon chose a city in the state to establish its

[15] *Incentives and Cooperation of Government Officials in Promotion Game – also on the Reasons for Long-term Existence of Local Protectionism and Repeated Construction Problems in China* [J], by Zhou Li'an. Economic Research, 2004(06):33-40.

second headquarters, Amazon would be entitled to US$5 billion of tax benefits in the next 10 years. [16]

ii) The government plays a role of macroeconomic regulation in the overall economic planning deployments and adjustments of cities.

Under a particular background, through macroeconomic regulation, the government can make corresponding deployments and adjustments in overall economic planning of cities, and enable cities to get out of trouble and reshape development vitality. To some extent, this practice is one of the sources of competitive edge obtained by local governments in the political tournament, and therefore becomes an important political incentive. At the same time, the government can create fresh impetus for enterprise development by proceeding from the overall economic development planning of cities. Compared with enterprises, the government is able to plan the development direction of urban economy from a more macroscopic perspective, and provide guidance and beacon for enterprise development. **While assisting in enterprise development, the government further sharpens its competitive edge in the political tournament. For example, in the enterprise restructuring in Jiangsu Province, local governments gave substantial assistance to enterprises in terms of funds and land.**

The macroeconomic regulation role of governments in the deployment and adjustment of cities' overall economic planning is particularly apparent in the northeast China. Wherein, the most representative event is the **industrial relocation and re-planning program of Tiexi District**, as mentioned in Section I. The rejuvenation of Tiexi District was highly affirmed by the central government. In a visit to Tiexi District, the then General Secretary Hu Jintao encouraged Tiexi people to overcome difficulties and blaze a Chinese-style path of rejuvenation of old industrial bases. On June 9, 2007, the NDRC and the Northeast Rejuvenation Office of the State Council granted Shenyang a title "Tiexi Old Industrial Base Adjustment and Reconstruction & Equipment Manufacturing Development Demonstration Area". As for Tiexi District, this meant that the country recognized the results of old industrial base adjustment and reconstruction and equipment manufacturing development in the past 5 years and also marked the beginning of a new era.[17] **To some extent, the affirmation of the central government can serve as an important political incentive to the local government and urges it to provide further assistance for enterprise entry and development.**

---

[16] Amazon to build its second headquarters, and these American cities are nearly crazy to canvas it! https://baijiahao.baidu.com/s?id=1581421217844812515&wfr=spider&for=pc

[17] news.hexun.com article at http://news.hexun.com/2009-07-14/119593001.html

(2) Economic incentives promote mutual benefit and win-win between governments and enterprises

Economic incentives to local governments for assistance in enterprise entry and development are directly linked to taxes. On one hand, taxes have a bearing on the ability of local governments to obtain resources that they can dispose of independently and advance various policies smoothly; on the other hand, when the economic development of a region is in good condition and brings abundant taxes to the region, the income of governmental officials might be linked to taxes. This mechanism often has a very strong economic incentive effect on the behaviors of local governments, and this is one of important reasons why they try their best to help with enterprise entry and development. Professor Qian Yingyi mentioned that, in the 1980s, the delegation of powers from the central government to local governments and the implementation of the tax-contracting system had an effect on the behaviors of local governments and the local economies under their jurisdiction. The tax-contracting system, while intensifying local protectionism and resulting in the decline of central fiscal revenue, granted local governments a very high marginal fiscal retention rate. Empirical research also found that, **during the era of the financial contract system, the higher rate of marginal financial retention, the more financial incentives for the local government, leading to more willingness to help and support local firms.** This is greatly different from the case in Russia in the 1990s. The local fiscal revenue in Russia has no relationship with local economic development, so local governments received no economic incentives for developing the regional economy, and accordingly there were no incentives for helping with enterprise entry and development.[18]

In addition, in terms of tax revenue and structure of sources, the entire indirect tax revenue, plus other local taxes with obvious indirect tax characteristics, accounts for more than 70% of the total tax revenue, while revenue from direct taxes such as corporate income tax and individual income tax accounts for merely 26.2%; in 2013, of the total tax revenue, the revenue from taxes paid by state-owned enterprises, collective enterprises, joint stock cooperative enterprises, joint stock companies, private enterprises and other types of enterprises accounted for 90%.On the whole, **in the current tax system structure of China, over 70 percent of tax revenue comes from indirect taxes, and over 90 percent comes from firms.**[19] Wherein, **tax from the enterprise binds local government and the firm.** Unlike China, western countries like the United States depend more heavily on personal tax. Take the United States for

[18] Douban, Qian Yingyi: *Understanding Modern Economics* at https://www.douban.com/note/369127038/
[19] *The Future Direction of China's Tax Structure Reform* at http://tax.rednet.cn/c/2017/06/16/4325716.htm

example, judging from the composition of the fiscal revenue of the federal government, individual income tax has always accounted for a high proportion; in most years, the individual income tax in the United States accounts for more than 45% of the federal fiscal revenue. Even in the total fiscal revenue of the entire country, individual income tax contributes more than 30% of the revenue, the highest of various taxes. Conversely, individual income tax in China accounts for a very low proportion in the central and local fiscal revenues and is almost negligible.[20] Therefore, **the United States and other western countries rely more heavily on individual tax, while China is more dependent on enterprise tax. Therefore, the economic incentives arising from taxes can motivate local governments to help with enterprise entry and development on their own initiative.**

Of course, the fulfillment of tax objective is not merely the result of the unilateral efforts of the government or enterprises, but it is because that the government, based on its own strategic planning, provides a high-quality environment for enterprise entry and development, pay attention to the development dynamics of enterprises, and achieve mutual benefit and win-win with enterprises.

i) Linking income of government officials to taxes is an important economic incentive.

When the income of government officials is directly linked to the taxes arising from enterprises, governments will be fully motivated to help with enterprise entry and development. Take development zones for example: in a pretty long period of time after the beginning of the reform and opening-up, due to good economic efficiency and rapid development of development zones, governments assigned special personnel to development zones, innovatively set up a special administrative structure – management committee, and the income of officials in management committees often depended upon tax revenue brought by incoming firms. It was such model that drove governments to create great environment for enterprise entry by various means, and provide a variety of preferences, all aimed at helping with enterprise entry and development. Development Zone even offers one-to-one service to help firm with problems, including tax preparation, inspection and quarantine, employment, etc. A special example is the electronic information industry, which can generate plenty of tax revenue for governments due to its own characteristics, while an administrative committee has a relatively small staff size, so their income will be increased accordingly, thus producing strong driving force to serve enterprises.

---

[20] *Comparison between Tax Structure and Tax Burden in China and the United States* at http://www.sohu.com/a/124772907_126158

ii) Governments endeavor to help with enterprise entry and development and achieve mutual benefit with enterprises.

The economic incentives to local governments for assistance in enterprise entry and development are largely derived from taxes, which in turn have a direct correlation with the development status of enterprises. When the development status of enterprises is good, they can bring more taxes to local governments and obtain more resources at their disposal and further ensure the smooth progress of work. Therefore, **motivated by economic incentives, local governments will vigorously encourage enterprise development and spare no effort to guide the coordinated development of upstream and downstream industry and achieve mutual benefit and win-win with enterprises.**

A good example is the location and development of Brilliance BMW in Shenyang, and this is a result of the local government's effort to guide the coordinated development of upstream and downstream industries, and achieve mutual benefit between the government and the enterprise. Shenyang Municipal Government's vigorous effort to introduce BMW has driven the local economic development to a great extent. Firstly, **in terms of fiscal revenue of the local government**, Brilliance BMW greatly drove the fiscal revenue of Shenyang, and the company alone contributed **nearly RMB20 billion of the total tax revenue of over RMB60 billion** in Shenyang. Secondly, the location of Brilliance BMW in Shenyang **also promoted the coordinated development of relevant upstream and downstream enterprises, and further increased the fiscal revenue of the city.**

While making vigorous efforts to guide the coordinated development of upstream and downstream industries, local governments tend to provide some **preferential policies**, **such as tax preferences and administrative approval convenience**, such as Jingjiang's reward policy, Jiangyin's "approval waiter" system and provision of learning and training opportunities for the human capital construction of enterprises, in an attempt to create a desirable development environment for enterprises. **On one hand, local governments make the best use of circumstances to help with enterprise entry and development; on the other hand, this reflects the economic incentives to governments for helping enterprises, i.e., by facilitating better development of enterprises, local governments can strive for more financial support for the smooth advancement of their own policies.**

Establishment and entry of new enterprises serve as an important impetus for regional development. Whether developed countries represented by the United States or developing countries still in their rise stage, it is an important way for governments to develop local economy by granting appropriate preferential policies and effective guidance to attract enterprises with development potential.

Governmental assistance and guidance to enterprises are not limited to the stage of attracting enterprises; in the subsequent development process of enterprises, especially key turning points of enterprise development, governments should also pay appropriate attention. It should be noted that, the development of Mold & Plastic Technology, Asian Star Anchor Chain, Northeast Pharm and Chengxing Group cannot do without the attention and support of local governments. In addition, "if we do not offer vigorous support to enterprises like Geely, who else will deserve our support?", the words said by the current General Secretary Xi Jinping, the then Secretary of CPC Zhejiang Provincial Committee were also a direct reflection of governmental concern about enterprise development. The reasons why the government places so much stress on the development of Geely are: **on one hand, the automobile industry can drive the rapid growth of the local economy due to its high rate of return and large scale effect; On the other hand, this reflects the policy favor given by the Zhejiang Provincial Party Committee and Government, which provides a strong support for the development of the enterprise.**

Driven by economic incentives, governments tend to try their best to offer help to enterprises and pay close attention to the development dynamics of enterprises. Wherein, in addition to the abovementioned preferential policies and guidance in the coordinated development of upstream and downstream industries, there are many other **innovative models**. For example, in line with the principles of "governmental guidance, social participation, professional management and market-oriented operation", Henan Province innovatively adopted the method of "converting directness into indirectness, free into paid, and funds into capital". Under such model, the government, by supporting strong enterprises and helping weaker ones and extending the support from point to surface, managed to enhance the endogenous impetus of enterprises, and improved the efficiency and industrial level of enterprises, **thus generating tax revenue for the local government to serve as economic incentives for helping enterprises.**

Aiming at mutual benefit and win-win, the US government also adopted the same practice. Wisconsin and iPhone OEM Foxconn Technology Group signed an agreement. On one hand, Wisconsin State Government would provide Foxconn with up to US$3 billion of income and sales tax relief in the next 15 years; on the other hand, Foxconn was expected to bring 13,000 high-paying jobs and US$10 billion investment capital to the state.

2. There must be restraints on local government behavior

Over the 40 years of reform and opening-up, the governments at all levels in China have used various means in support of enterprise entry and development. On the whole, governmental assistance in enterprise entry plays a direct role in driving the economic growth of China, and the government has greatly promoted the rapid development of the Chinese economy through the "visible hand". However, for various reasons, **local governments are subject to blindness and limitation to some extent, and this tends to give rise to a series of problems when the government is assisting in enterprise entry and development. Therefore, corresponding restrictive system should be put in place to regulate local governments' behaviors in helping with enterprise entry and development.**

Specifically speaking, in the process of decision-making of local governments, since they only care about the economic development of the regions under their jurisdiction and are prone to base their important judgments on the macroeconomic hot spots and policy orientation, they will give less consideration to whether other regions at the same level will select the same industries and development planning. Moreover, compared with surrounding provinces/municipalities, local governments often show sheep flock effect and seek for some projects offering handsome return for the time being or some industries with policy support at present. Coupled with the corruption problem mentioned above, local governments sometimes have the problem of power rent-seeking and make some decisions favorable for themselves. Under the combined action of these factors, local governments tend to engage in overlapping or inefficient investments, resulting in overcapacity and many other problems. At the same time, motivated by political or economic incentives, local governments tend to make use of "policy bottomland" to build up competitive edge and attract new enterprises, resulting in vicious competition among the local governments of different regions.

In view of this, **on one hand, it is necessary to build a unified and well-established market system to allocate and manage products and funds reasonably through the market force, and restrict the behaviors of local governments through effective market force, with a view to avoiding vicious competition, excessive investments and other relevant problems effectively. On the other hand, it is necessary to effectively copy with the side effects arising from "overzealous" local governments by means of central macroeconomic regulation.** Since the central government possesses some natural advantages over local governments, it is in a good position to plan the whole situation by virtue of more information. Therefore, macroeconomic regulation from the central government is essential. For instance, in the late 1990s, in response to the general losses and serious overcapacity in the textile industry, Premier Zhu Rongji initiated an overcapacity cut program by "reducing spindles" in the state-owned enterprises in the textile industry; by 2000, the entire industry managed to turn profitable again, laying a sound foundation for the industrial upgrade and revitalization of the textile industry. **In addition, some measures should be taken to effectively respond to the current corruption and "disguised corruption" problems.** At present, in addition to some corruption and power rent-seeking problems occurring to local governments in developing planning strategy, allocating administrative resources and selecting enterprises to receive various kinds of support, some other problems also arise, such as dereliction of duties and lazy/slack administration. With the strengthening of the efforts to implement "eight-point austerity rules" of CPC Central Committee and the deepening of the clean government construction, problems such as "do not want to do things and dare not do things" arise in the practical work of the governments at all levels. This disguised corruption will likewise have a negative effect on local development. Therefore, it is necessary to take appropriate actions to cope with the corruption and disguised corruption problems in local governments efficiently. **Of course, legal constraints are also essential for regulating the behaviors of local governments in their assistance in enterprise entry and development.** It is necessary to build a well-designed legal system, straighten out the relations between the government and the market, prevent excess of authority, absence and dislocation of the government in the macroeconomic regulation, effectively solve the problems of non-local administration of law and execution, and promote the sound development of the economy.

SECTION II
RAPID LAND CONVERSION

EXECUTIVE SUMMARY

This section analyzes the role land conversion plays in economic activities. Land conversion was a key issue in classical political economy, but modern economics has not paid enough attention to this.

While the process of industrialization, urbanization, and the development of the real estate market is highly dependent upon the conversion of agricultural land into non-agricultural use, land conversion and the Coasian negotiations can be very costly. China's experiences indicate that Government can play an active role in the conversion of land usage, by helping reduce the transaction costs of land conversion. In addition, there needs to be top down overall planning of land usage, including urban planning.

Over the past two decades, the Chinese real estate market has grown from scratch to the world's largest. Household's housing consumption has been fundamentally enhanced. However, problems also arise accordingly, including high housing price and high housing inequality. This section will systematically summarize the experience and lessons for the development of real estate market in China over the past two decades of housing reform, and discuss the economic inspiration, especially how rapid land conversion plays a role in the whole process.

I. Stylized Facts

In 1998, the Ninth NPC of the PRC announced that the reform of the urban housing system would be deepened and suggested that real estate become a new engine of China's economic growth. Subsequently, Chinese government began to gradually abolish the welfare-oriented public housing distribution system and implemented a market-oriented housing policy. The real estate market in China has been developing for twenty years since the housing reform rolled out.

1. The Chinese real estate market has grown from scratch to the world's largest within 20 years, rapid land conversion being the key factor

The housing reform policy in 1998 released the growth momentum of China's real estate market, cultivating the real estate market from nothing. At present, it has become the largest capital market in China. **The statistics indicate that the total value of China's real estate market was about RMB280 trillion (US$39 trillion) in 2017, exceeding 300% of total GDP, while the counterpart of the United States was US$31.8 trillion for the same period.** In terms of housing prices, the average price of large cities in China is higher than the United States. Take the housing prices in July 2016 as an example, Shenzhen (US$7,768/sqm), Beijing (US$6,836/sqm) and Shanghai (US$6,446/sqm) ranked the top 3rd among large cities in China and the United States, while San Francisco (US$4,888/sqm) and Los Angeles (US$4,023/sqm) ranked 4th and 5th respectively[1]. (Denominated in US$)

Table 1: Estimation of Real Estate Market Value

	Zillow[2] (U.S.)	Savills[3] (UK)	CCWE[4]
China		2016: 39.4 trillion	2017: 36.5-39 trillion
U.S.	2017: 31.8 trillion	2016: 34.1 trillion	

Source: forecast by institutions and calculated by ACCEPT

[1] https://www.zillow.com/research/china-united-states-housing-costs-14795/

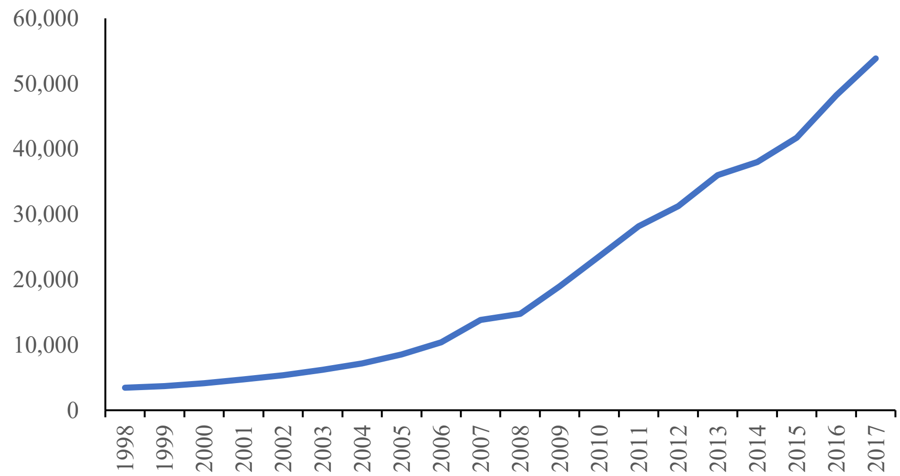
[2] https://www.zillow.com/research/total-value-homes-31-8-trillion-17763/

[3] https://www.savills.com/blog/article/219340/international-property/the-10-most-valuable-real-estate-markets-in-the-world.aspx

[4] As published by the National Bureau of Statistics, the per capital housing areas of the whole country, city and village were 40.8 sqm, 36.6 sqm and 45.8 sqm respectively in 2016. And in 2016, China's urban and rural permanent populations were 813.47 million and 576.61 million respectively. Urban: the average selling price of residential commercial housing was 7,203.00/sqm in 2016, and accordingly we estimated 215 trillion. Rural: the rural residential construction cost for completion was 866.69/sqm in 2016, and accordingly we estimated between 26 and 30 trillion. With the urban estimation plus rural estimation as well as the growing rate of the housing prices between 2016 and 2017, the total market value of the whole country was estimated to be US$36.5-39 trillion.

In the past two decades, the real estate industry has rapidly developed into a backbone of Chinese economy. **From 1998 to 2017, the scale of the real estate market continued to increase from RMB343.45 billion in 1998 to RMB5.38507 trillion in 2017, growing by about 14.6 times, and by 15.6% in terms of average annual increase.** This indicates that China's real estate market has been significantly developing. Meanwhile, the proportion of the real estate market in GDP steadily increased from 4.03% in 1998 to 6.51% in 2017, reflecting the leading role of the real estate in the national economy[5]. Besides the real estate industry itself, we should also consider the impact of its upstream (e.g., cement, glass, steel, etc.) and downstream (e.g., home appliances, building materials, decoration, etc.) industries.

Chart 1: Total Output Value of China's Real Estate (RMB100 Million)



Source: Wind Database

2. Household's housing consumption has been fundamentally enhanced

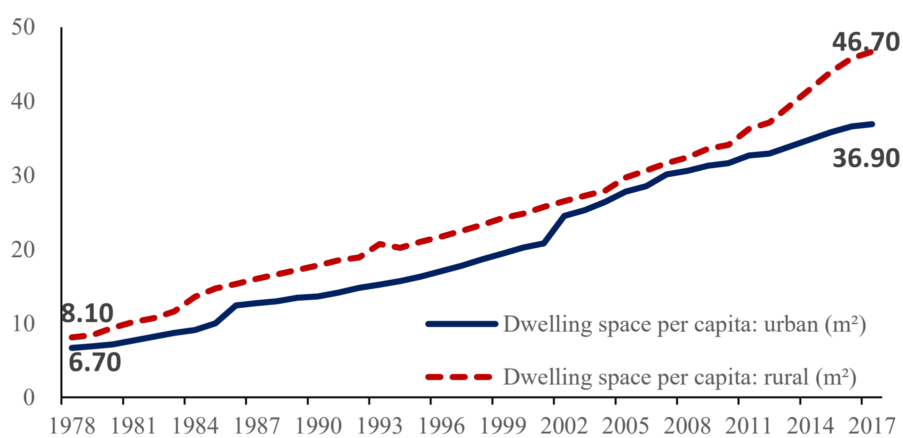
Before implementation of the policy of reform and opening-up, China performed the welfare-oriented public housing distribution system within the context of the planned economy, so the housing for residents was uniformly distributed by the workplace. Although the system can meet the basic housing demands, the insufficient investment in housing construction results in small living space, poor living conditions and growing shortage of housing supplies. Accordingly, housing demands have been suppressed for a long time. Since the implementation of reform and opening, the Chinese government has attached great importance to the housing and continuously reformed the housing system. The 1988 "Monetization of Housing Distribution" has been the most importance turning

[5] Source: National Bureau of Statistics: http://data.stats.gov.cn/easyquery.htm?cn=C01

point. Since then, the Chinese government abolished the welfare-oriented public housing distribution system and the real estate market was officially established. Led by the Chinese government and driven by the market, the real estate industry has rapidly developed, with rocketed housing supply, continuous rise in the quality of new housing and fundamental improvement of the people's living standards.

The figure below indicates the historical changes of the per capita housing areas in China. **The urban and rural per capita housing area was only 6.7 and 8.1 sqm respectively in China in 1978. In the past 40 years of reform and opening-up, with the continuous development of the real estate market, the per capita housing area in China has increased year by year. And in 2017, the areas above reached 36.9 and 46.7 sqm respectively.** These changes reflect the improvement of the life quality of residents, for example, people moved out from the tube-shaped apartment where several generations lived together to the spacious and beautiful commodity house and enjoyed a free and comfortable living space in the past 40 years. Compared with the developed countries, it is found that we have a big gap with the United States in terms of per capita housing area, but far surpass Japan and South Korea and reach the level of UK and France. According to a book *Modern Housing Economy* written by GUAN Ke, the per capita housing area of the United States, UK, Germany and Japan was 61.3 sqm, 36.6 sqm, 35.5 sqm and 31 sqm respectively since 1990s[6]. As these countries completed their urbanization earlier, their real estate markets have developed into a mature stage. Thus it can be seen that China's housing conditions have been greatly improved, gradually catching up with developed countries.

Chart 2: China's Dwelling Condition has been Largely Enhanced



Source: NBS of China

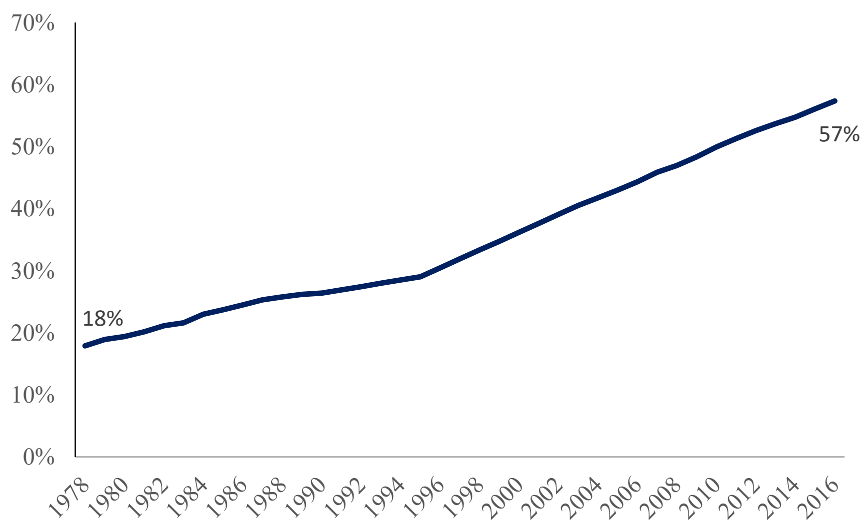
After the establishment of real estate market, the sales of residential commodity houses also indicate a trend of rapid growth. The data issued by National Bureau of Statistics indicate that the sales of residential commodity houses in China reached

[6] GUAN Ke, 2002: *Modern Housing Economy*, China Building Industrial Press.

RMB9.906417 trillion in 2016, with a 24-fold increase compared with RMB402.115 billion in 2001; on the other hand, the areas of sold residential commodity houses reached 1.375 billion square meters in 2016, increasing by about six times compared with 199 million square meters in 2001. Although there are effects of real estate speculation, the hot sales of homes still indicate that the real estate market has met demands for people to improve their quality of life, thus improving residential levels.

The investment in the construction of real estate industry has not only improved the residential levels, but also promoted the development of urban infrastructure and generated a series of achievements in Chinese urbanization. **At the beginning of reform and opening-up, China's urbanization rate was only 18%. After the four decades of steady development in the climate of reform and opening-up, this rate increased to 57% by 2016**, with a gap of about 20% with developed countries (e.g., the corresponding rates of the US, UK and Germany were 82%, 83% and 77% respectively). Many new economic growth points have emerged in the process of population movement and urban rising, making important contributions to economic development since implementation of the policy of reform and opening-up.

Chart 3: Urbanization Rate of China



Source: NBS of China

3. Problems arise: High housing price and high housing inequality

The real estate market has improved the people's living standards; however, it has been plagued by such serious problems as high prices and uneven distribution of housing resources. Since 2013, the steady rise in housing prices has attracted broad attention. According to the year-on-year changes in the housing sale price index issued by the National Bureau of Statistics, the price rose obviously in 2016 and 2017. Moreover, from May 2016 to February 2017, the year-on-year growth rate of the newly-built housing sale price index was kept at more than 20% and for the second-hand houses, more than 30%.

In the process of investigation of development of real estate market, we find from the annual growth rate of the average sale prices of the residential commodity houses that the housing prices not only soar in the near term, but many times in the past. The average housing prices increased by 19%, 25% and 11% respectively in 2004, 2009 and 2016, exceeding the growth rate of per capita disposable income of urban residents. The rise in the housing prices has led to uneven housing distribution. As housing prices have soared, young people really needing to buy a house cannot afford high housing prices, so they have to rent a house or make a living in another city; on the other hand, high housing prices have stimulated capital speculation and resulted in the bad phenomenon of the housing speculation, so that we have deviated from the goal that "the housing is used to live".

The housing prices are seriously higher than incomes in many Chinese cities so that many residents are unable to afford the house. According to the *Report on Housing Price-to-Income Ratios in 35 Key Cities in China in 2017* issued by China Real Estate Newspaper[7], all of the housing price-to-income ratios in 35 key cities in China are higher than the reasonably international range of 3-6 (Changsha has the lowest ratio among 35 cities above, with a ratio of 6.67). The ratios of the top five cities (Shenzhen, Sanya, Shanghai, Beijing and Xiamen) are higher than 20, and Shenzhen ranks first with a ratio of 39.64. **According to the international housing price-to-income ratios in 2018[8] issued by NUMBEO Global Database, in the first half of 2018, the ratio in mainland China is 27.17, and 46.89 in Hong Kong. On the whole, China's ratio has jumped to the second in the world.** Compared with other developed countries, ratios in Japan, France, UK, German and the United States are 11.16, 11.51, 8.89, 8.48 and 3.44 respectively, far lower than China's ratio. Regarding our major cities, Beijing (44.34), Shanghai (44), Shenzhen (39.86) and Guangzhou (23.10) rank the 3rd,4th, 5th and 11th respectively in the world, and Hong Kong (46.89) ranks the 2nd in the world, so we can see that these cities in

[7] See http://www.sohu.com/a/225313656_99961827

[8] See https://www.numbeo.com/property-investment/rankings_by_country.jsp

China have been almost at the top[9]. Among developed countries, London is an internationally renowned city with high housing prices, but its housing price-to-income ratio is 20.58, far lower than Beijing, Shanghai and Shenzhen. Furthermore, the ratios of such other international metropolises as New York, Tokyo, Paris and Berlin are 11.93, 12.97, 18.51 and 10.38 respectively. To sum up, the ratios in Beijing, Shanghai and Shenzhen are several times higher than other foreign cities. For this reason, the residents in above Chinese cities are faced with the biggest pressure of housing purchase in the world, that is to say, they are hardly to afford a home.

Generally speaking, China's real estate market has made remarkable contributions to the development of economy, but also caused many troubles. Accordingly, the government at various levels, enterprises and academia still need to carefully summarize the experiences and lessons, explore and strive to find a better development path for real estate market.

II. Historical Overview

1. Evolution of China's Land Policy

Since implementation of reform and opening-up, China's land system has undergone several changes. Regarding the first change, the Constitution officially stated **in 1982** that "the urban land shall belong to the state", laying the foundation for the development of the real estate market adjusted by the government.

Since 1987, the land system has begun to be transferred to a system of compensated transfer of land based on agreements due to the demands of reform and opening-up. After adopting the policy of reform and opening-up, the demand for land use by the foreign and private enterprises created the paid use of land. For example, as a pioneer of paid use of land, Shenzhen firstly implemented the system of paid use of state-owned land in 1987, and in April 1988, the provision that "the land use right may be transferred in accordance with law" was included into the Chinese Constitution, and therefore the land ownership was separated from the land use right, and the land use right may be transferred. To this end, the system of paid use of land was lawfully established. And then the provision that "the market mechanisms shall be introduced into the land supply mechanism through the collection of land use fees, conduct of paid transfer of land use right and other forms" was included into the Land Administration Law in December 1988.

The definition of the relevant national laws and regulations on the land use right promoted the formation of the system of compensated transfer of land during this period. **In 1990**, the State Council adopted the Interim Regulations on the Assignment and Transfer

[9] See https://www.numbeo.com/property-investment/rankings.jsp?title=2018-mid&displayColumn=0

of Urban State-owned Land Use Right, which clearly provides that the state-owned land use right may be transferred through "agreement, bidding and auction" and other market transaction. The land transfer system established on the basis of the Regulations began to play a role in the utilization and allocation efficiency of land resources. Our main tasks were to define and clarify land property rights during this period. To be specific, we should define the value and functions of the land use right mainly through the separation of the land use right and ownership. For example, the Interim Measures for the Administration of Allocation of Land Use Right introduced new norms for the traditional administrative approval land in 1992, the Urban Real Estate Management Law of the People's Republic of China added detailed provisions on the acquisition of urban land use right and the transfer of land use right along with transfer of the real estate mortgage in 1994, and the Guarantee Law of the People's Republic of China adopted in 1995 allowed the state-land use right to be as the collateral. The unsound land supply system in this period resulted in some bad phenomenon such as land-buyer binges by developers, illegal land supply, low-cost transfer, land occupation, waste of resources, rent-seeking and popular speculation in the early 1990s.

With the advancement of housing reform, China has further established a local government-leading land supply system and the usage rights transfer system through biding, auction and listing **since 1999**. According to the provisions of the Notice on Strengthening the Administration of State-owned Land Asset issued by the State Council in April 2001, we should establish six basic systems as follows on the land market: a unified supply system for market construction land, a system for control on the total construction land, a system for transaction of the land use right on the market, a system for benchmark land price update and publication, a public inquiry system of land registration and an internal review system for collective decision-making. Driven by the central government, there were 1,300 or more urban land acquisition and reserve institutions nationwide by the end of 2003[10]. Most cities have established land reserve institutions and land open markets.

2. History of China's Real Estate Market

Looking back into the past 38 years of real estate development in China, the real estate market has become a pillar industry and then the object of long-term mechanism regulation from the early development, undergoing several stages of development. The government has, in each stage, different positioning and development ideas on it. In this process, a regulatory tool based on monetary, credit, tax and land control policies is gradually formed.

[10] LANG Cong, 2007: *Land Reserve Evaluation and Research*, Doctoral dissertation, Tongji University.

China's real estate market has continued to develop in exploration, and experienced eight stages of development.

Before adopting the policy of reform and opening-up: there was a serious shortage of housing in this period. In urban area, the government settled the housing problems by implementing the system for welfare-oriented public housing distribution and low-rent public housing. The government and the work unit were responsible for investment, construction, distribution, management and maintenance of the housing. The housing distribution adopted the top-down system and was a typical welfare. And in the countryside, the Draft Amendments to the Regulations on the Rural People's Communes was adopted, which establish the property model of rural homesteads (one house and two systems, public land and private house) and confirm that the rural homesteads shall belong to the commune, and the members shall not buy or sell but may build houses for renting and sale. In this period, the systems for collective ownership of rural homesteads and farmers' free access to use right were basically formed.

From 1980 to 1998: early stage of real estate market. The housing commercialization was firstly and officially presented in 1980, promoting China's housing and land reform. Accordingly, China's real estate opened its first round of development. In 1988, Hainan became Hainan Province. A large number of young people went to Hainan to establish real estate enterprises, including Vanke, Greenland, Wantong and other well-known real estate enterprises. The State Council carried out the housing reform in 24 provinces in 1991, greatly activating the real estate market. Although the government subsequently introduced a number of policies to curb the development of real estate and prevent the bursting of real estate bubble, this stage has laid the foundation for housing commercialization.

From 1998 to 2002: development brought about by housing reform. Affected by Asian financial crisis in 1998, the State Council issued the Notice on Further Deepening the Urban Housing System Reform to Accelerate Housing Construction in order to stimulate domestic demand, and began to establish the urban housing commercialization system, under which people can buy the house with property right[11], making the housing market become a new economic growth point and laying a solid foundation for housing system reform. Since then, the supporting policies such as bank credit and land management had been introduced. With the introduction of a housing credit policy, buyers can purchase a house with a down payment. And the housing provident fund system was also fully implemented. Regarding the land, the system for biding, auction and listing transfer of operating land was established. At this stage, as driven by the real estate

[11] China's housing system provides that the land ownership shall be different from the housing. The housing ownership is permanent without time limit, while the period of land ownership varies according to the nature of land, that is to say, the period of housing is 70 years, the industry, science, education, culture and health, 50 years and the tourism and business, 40 years. In addition, the property of housing can be renewed automatically.

investment, GDP increased by 1.2%. What's more, the increase rate of housing prices was less than 5%, so we achieved the goal of steady growth in the real estate market.

From 2002 to 2007: the real estate became a pillar industry. In August 2003, the State Council issued the Notice on Promoting the Sustainable and Health Development of the Real Estate Market, in which the State Council proposed that "the real estate has become a pillar industry of national economy" for the first time. In 2003, the investment in the national property development projects grew by more than 30%, showing an overheating development trend. Therefore, in order to promote the sustainable and healthy development of the real estate market, the government formulated the relevant policies involving in strict land management, control of real estate development and increase in the down payment ratio of high-end commodity house and villa. However, the housing prices still rose due to the suppression of the supply. As the proportion of urbanization increased, the demand for housing was further released. In March 2005, the State Council issued a document to stress the importance of stabilizing housing prices. 2005 is the first year of macroeconomic regulation and control on China's real estate market. In terms of housing supply, the housing with 90 sqm was required to account for 70% of the total development area. What's more, both the government implemented the financial policy on increase in the down payment ratio and the land policy on strict approval of land. At this stage, although these policies were intensively implemented to adjust the real estate market, the housing prices had continued to climb.

From 2008 to 2009: the real estate stimulus policy was implemented again. Affected by 2008 international financial crisis, in order to stabilize the economic development and stimulate real estate consumption, the State Council issued the Several Opinions on Promotion of Healthy Development of Real Estate Market, which take the real estate as an important pillar industry again and positively support the development of real estate. In terms of credit, the People's Bank of China issued the Notice on Expanding the Float-down Amplitude of Loan Interest Rate of Personal Commodity House and Other Relevant Issues to increase credit support for self-occupied and improved housing, lower the down payment ratio and provide the loan facility so that the monetary policy can be in a loose state. Meanwhile, the government granted the tax preference. The Ministry of Finance issued the Notice on Adjustment of Taxes Policies in the Real Estate Transaction, reducing the business tax and cutting the deed tax to 1%. At this stage, the stimulus policy had obvious effects, and the housing prices maintained a stable development trend.

From 2010 to 2013: the excessive rise in housing prices was curbed. At the end of 2009, the State Council promulgated "Four Measures" to comprehensively use land, finance, taxation and other means to curb excessive rise in housing prices. In April 2010, the State Council issued the Notice on Resolutely Curbing the Excessive Rise in Housing Price in Some Cities to firstly adopt the purchase restriction policy, increasing the down payment ratio to 30% and resuming the exemption period of the business tax to 5 years from 2 years in the past. At this stage, the housing price was curbed on the whole.

From 2014 to September 2016: the excess urban real estate inventories were cut to stimulate again. In the context of "cutting excess urban real estate inventories" and realizing economic growth shifts, the real estate had once again become an important engine for activating economic growth. In September 2014, the Central Bank and China Banking Regulatory Commission issued the Notice on Further Conducting the Housing Financial Services, adjusting the housing loan policy. To define whether loan is for a first house or a second house, the bank transferred the investigation of "credit registry and house ownership" to the "credit registry other than house ownership". The first-home down payment ratio was reduced to 30%, and the buyers can enjoy the preferential interest rate of the first-home loan (30% off). The real estate destocking was proposed at the Central Economic Work Conference in December 2015. The housing prices skyrocketed at this stage.

Since September 2016: a long-term mechanism for real estate was established. Due to the skyrocketing housing prices, the Political Bureau emphasized in July 2016 that we should make major efforts to "suppress the asset price bubbles". From September 30 to October 6, 2016, the real estate policies in various regions were intensively introduced, and 16 cities including Beijing, Tianjin and Shenzhen successively issued real estate regulation policies. In December 2016, the Central Economic Work Conference firstly proposed that "housing is used for living in, not for speculation". And in February 2017, the Central Secretary laid out "the study on the long-term mechanism of real estate and basic institutional arrangements" for the first time, marking the transformation of China's real estate from short-term regulation to long-term mechanism and housing system. As stressed at the 19th Party Congress Report, "we will move faster to put in place a housing system that ensures supply through multiple sources, provides housing support through multiple channels, and encourages both housing purchase and renting". With the implementation of a series of policies such as "restricted purchase, restricted loans, restricted sales, price limit, limited land auction, restricted transformation of commercial land into the residential land", the overheating of the real estate market has been suppressed. The "restricted sale" policy is an innovative policy in this round of regulation. As the core content of the housing system, the policy of "encouraging both housing purchase and renting" was laid out. The housing with joint ownership as an innovative system has been piloted in first-tire cities such as Beijing and Shanghai. The government, at this stage, has started to explore the establishment of the housing system and paid its attention to the long-term mechanism, which has figured prominently in China's real estate regulation and control and also provided a point of reference for the development of real estate in other countries.

III. ECONOMICS ANALYSIS

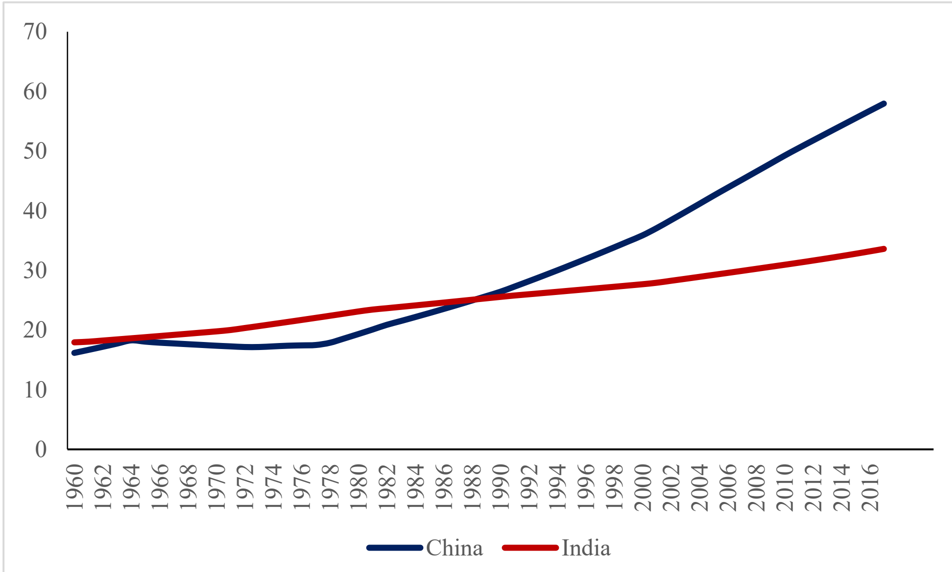
1. Land conversion is too important to be ignored by modern economics

Land conversion was a key issue in classical political economy. Early in the era of the industrial revolution, economists such as Smith and Riccardo had gone through mass discussion about land conversion. However, modern economics has not paid equivalent attention to this issue. As major developed countries entered post-industrialization development, little discussion on land conversion remains in current mainstream economics textbooks. Modern economics holds an assumption that, as long as the property right of land is defined, land conversion would be carried out through Coasian negotiations. **However, the cost of Coasian negotiations can be astonishingly high, which makes land conversion very costly.** The process of industrialization, urbanization, and the development of the real estate market is highly dependent upon the conversion of agricultural land into non-agricultural use, and as a planner of the geographical distribution of economic activities, the government is essential to direct the process of land conversion.

First, the conversion between agricultural and non-agricultural land affects the urbanization process. Once agricultural land cannot be successfully converted into non-agricultural land, the process of urbanization and industrialization will be hindered. Second, the specific use of urban construction land seriously affects the economic activities of a region. The conversion between industrial and commercial and residential land will directly affect the local economic development track. Last but not least, the construction and distribution of a large number of public works and infrastructure, including public transport systems, are closely related to the allocation of land resources.

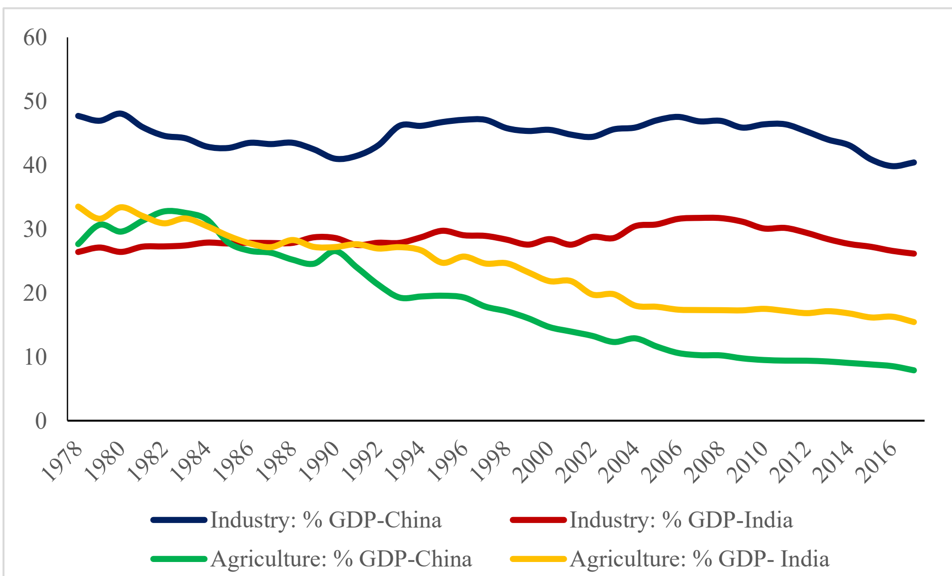
We take India and Brazil as examples to demonstrate the negative impact of laissez-faire land policies on economic development. India established the feudal private ownership of land during colonial period, and after its independence, it has never been able to thoroughly reform this system. A large amount of land was concentrated in the landlords, which form a major obstacle to India's industrial development and urbanization. From the view of urbanization rate, both India and China were less than 30% in 1978, but India was ahead of China with about 5% points. However, India's urbanization rate was kept at only 33% in 2017, far lower than China. From the perspective of industrial structure, China's primary industry's share in GDP has fallen to 8% and China has begun the transformation and upgrading of the secondary and tertiary industries, while India has greater dependence on agriculture, and the proportion of its industry in GDP is still below 30%.

Chart 4: Urbanization rate of China and India



Source: WDI

Chart 5: GDP Composition of China and India



Source: WDI

Brazil's development is different from India, but it is another state in which the government non-intervention of allocation of land resources exerts adverse effects on the economy. Brazil's land system evolved from the large manor system of Latin American colonialism. At the end of the 19th century, Brazil began the modernization, but the degree of land concentration increased in some sort rather than decreased. By 1950s[12], 78% of farmers in Brazil still had no land, while the large manors had a large scale of operations with an average operating area of 2,000 square kilometers. In 2003, its manors with more than 2,000 hectares accounted for 0.8% of the total number of farmers, but these manors' land represented 31.6% of the total land[13]. Under the system in which the land is highly concentrated in the manor owners, Brazil's urbanization has experienced abnormal development. As a large number of landless farmers rushed into the city, Brazil completed its urbanization in the 1980s, and its urbanization rate rose to 84.2% in 2005. However, the formal housing market has limited capacity, and the poor rural labor force that entered the city has no ability to buy a house. For these reasons, the constraints of both supply and demand have led to the failure of Brazil's urbanization economy to start effectively. Therefore, the slums have been growing and spread across all large and medium-sized cities in Brazil. According to census in 2000, there were 3,905 slums in Brazil, an increase of 717 from 1991. There was a population of 5.85 million in urban area of Rio de Janeiro, among which, more than 1.5 million lived in 513 slums. The Rosinia slum, with a population of more than 300,000, is known as the largest slum in Latin America. In the mid-1970s, the population of working in Brazil's manufacturing field accounted for 20% of the total working population, while the urban population represented 61% of the total population. It can be seen that the industrialization divorced from urbanization[14].

Second, land conversion has an all-round impact on regional economic development, including enterprise entry, industrial transformation and upgrading, etc. And the enterprise entry and industrial transformation will be greatly improved when the government can reasonably guide the allocation of land resources.

This is well demonstrated by the case of "Industrial Relocation and Re-planning Program" (i.e. the partial enterprises move from Tiexi District to Economic and Technological Development Zone), which we learned in the process of investigation in Shenyang. In 2002, the reform of state-owned enterprises in Tiexi District was faced with many difficulties. For example, the asset-liability ratio of more than 1,100 state-owned enterprises was over 90% and half of 300,000 industrial workers were on the verge of unemployment. Accordingly, Tiexi District government proposed the "Industrial Relocation and Re-planning Program", and successfully revitalized old industrial area through rational land development and utilization. Tiexi District government allocated the

---

[12] HAN Jun, CUI Chuanyi and ZHAO Yang, 2005: *Slum Issues in the Process of Urbanization in Brazil and its Implications for China*, *China Development Reservation*, No. 06.

[13] LI Ruilin and WANG Chunyan, 2006: *Urbanization in Brazil and its Implication for China-Compared with China's Urbanization*, *Journal of Yanbian University* (Social Science Edition), No. 02

[14] ZENG Xianming, 2011: *Land Problems in the Process of Industrialization and Urbanization-A Case Study of Brazil*, Productivity Research, No. 01.

land resources to those in need through conversion of the industrial land where the city center enterprises are located into the commercial land. At the same time, the district government solved the urban environment construction of old city by using income of land price difference and reestablished the factory in the western development zone for enterprises moving out. By 2005, Tiexi District has basically weathered the difficulties of state-owned reform. Regarding RMB14 billion income from land exchange, RMB5 billion was used to resolve the historical legacy of state-owned enterprises, RMB5.5 billion to support new establishment and development of enterprises moving the west, and RMB3.5 billion to reconstruct the center of old city so that RMB3 billion of debts can be repaid and 150,000 workers can be resettled. The dilemma of the reform of state-owned enterprises in 2002 indicates that some land resources in Tiexi District had been unreasonably allocated. To be specific, on the one hand, the old city was unable to provide industrial enterprises with elements necessary for further industrial development, so these enterprises were faced with the development difficulties; on the other hand, the old city had a large population and demands due to many years of its construction and had great appeal to commercial development investors, but investors cannot enter the old city due to then planning. Tiexi District government's bold transformation of land use patterns is line with the demands for rational distribution of resources, has successfully repaid the reform costs of state-owned enterprises, and completed industrial transformation of the old city and the construction of a new development zone.

2. Government can play an active role in the conversion of land usage

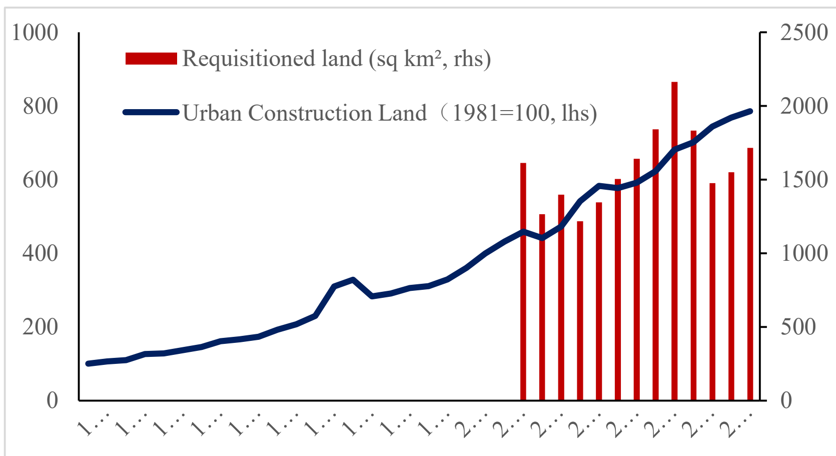
The development experience in China's real estate market over past two decades indicates that regardless of land ownership, government can play an active role in the conversion of land usage.

First, local governments need to be incentivized to help reduce the transaction costs of land conversion. In China, local governments instead of the real estate agents is directly involved in negotiations with users of agricultural land, greatly accelerating the conversion of land from agricultural to non-agricultural. On the one hand, the government's ability to coordinate and negotiate is far greater than that of a single developer. And the government can collectively negotiate with the land users in the relevant district, which improve the feasibility of the whole conversion of land use patterns in the relevant district. On the other hand, the flexibility of government negotiations is stronger than that of a single developer. In addition to cash compensation, the government also provides non-cash compensation through comprehensive use of resources, such as settlement of employment, significantly reducing negotiation costs.

What's more, the Chinese government has closely tracked the least cultivated land areas in the process of coordinating the conversion of land from agricultural to non-agricultural. The government has paid close attention to changes in cultivated land areas and strictly implemented a "red line" of 1.8 billion mu (120 million hectares), which provide a greater guarantee for China's food security.

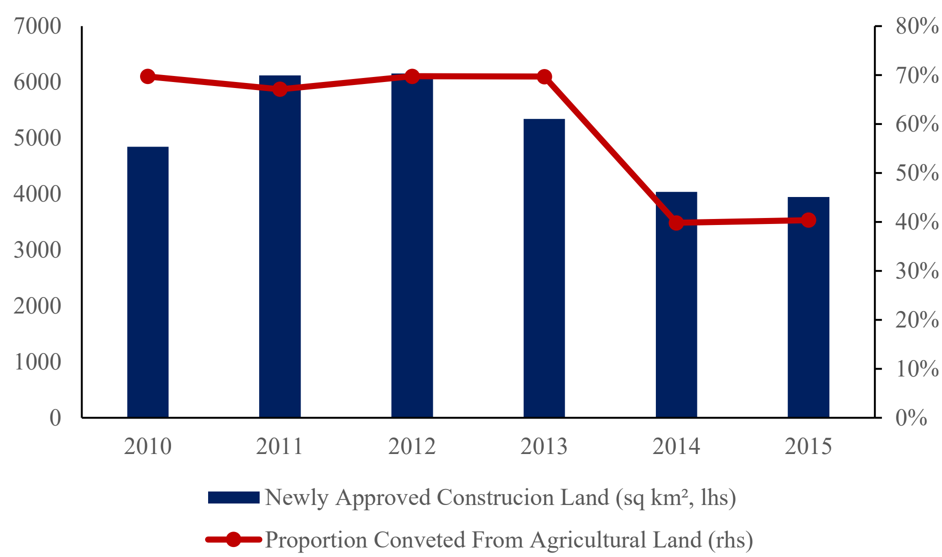
Since implementing the policy of reform and opening-up, China's urban construction land areas have risen rapidly. The start of housing reform policy and real estate market in 1998 also promotes the urbanization process. The national urban construction land area was only 6,720 square kilometers in 1981, and in 2016 it has reached 52,671.3 square kilometers.

Chart 6: Expansion of Urban Construction Land in China



Source: NBS of China

Chart 7: Land Conversion in China



Source: NBS of China, Ministry of Natural Resources, ACCEPT calculation

Second, there needs to be top down overall planning of land usage, including urban planning, regardless of ownerships. In China, the land and resource authorities and the urban planning organs make an overall plan on the distribution of land use patterns. In the United States and Europe, despite the private ownership of land, the relevant government authorities still manage the land use patterns. There are development planning departments at various levels of the U.S. government [15]. The federal government is responsible for conducting the national development planning and adjustment, while local governments at the city or county level directly participate in the specific urban planning. The local urban planning department issues the *Guidelines for Urban Master Planning and Development* with a valid term of twenty years to illustrate the objectives and location of the residential, commercial and industrial land. Based on the Guidelines, the planning department of each community specially determines the detailed construction objectives of each sub-district, including land use, transportation and public service facilities. Moreover, the U.S. urban planning commission sets forth requirements on the storeys, floor area ratio and even appearances in a certain area. For example, when Trump planned to build a Trump Tower [16] in New York, he conducted a long-term negotiation and communication with local urban planning committee in order to build a tall building with a floor area ratio of 21.6 among lower building complexes, and finally obtained the affirmative votes of the commission through media and other multi-party operation. Furthermore, in the preparation of the Trump International Building in Chicago, a tug-of-war with the local urban planning committee was also carried out due to public transportation problems. These indicate that the United States government is very strict with the management of land use. In Germany[17], the Urban Development and Research Department publishes the urban construction plan in a legal form, providing for the possible usage of all development projects. The management scope of the construction plan covers whether a certain residential area is allowed to build partial office or industrial buildings and that no any buildings may be built within the scope of the land allocated to public facilities and roads[18].

After the Second World War, with the guidance of the United States and the cooperation of each relevant government, Japan, South Korea and Taiwan implemented the policy of compensated land use to reform the feudal land ownership and reduce the

---

[15] SHI Jian and XU Liqun, 2004: *Discussion on the U.S. Urban Planning System: A Case Study of San Diego County*, *Foreign Urban Planning*, No. 04.

[16] Tony Schwartz and Donald Trump: *Trump Autobiography,* pp. 112-113.

[17] WANG Tian, JIANG Yao and YANG Chengquan, 2009: *German Urban Planning and Construction*, *Urban Development Research*, No. 6.

[18] WANG Xiaochuan, 2005: *Germany: Statement and Cases of Urban Planning Public Participation System*, *Beijing Planning and Construction*, No. 06.

concentration of agricultural land and monopoly. Moreover, before the 19th century, the United States experienced a series of problems such as overcrowding and poor sanitation due to lack of planning for urban development and land use. Finally, "Zoning Regulations" was adopted in New York State in 1916, and by 1926, all states in the United States adopted their own Zoning Regulations to plan and guide the land use patterns[19].

In addition to regional economic development and urbanization, the government's direct or indirect guidance of allocation of land resources also contributes to the construction of important public facilities and infrastructure. In China, the urban land is owned by the state, so it is easier for the government to carry out the infrastructure construction including road. In the United States, based on the private ownership of the land, each of the federal and state government owns a part of the land in order to carry out the important infrastructure construction. Take Santiago, the land owned by the federal government accounts for 27.7%, and the state government, 27.1%[20]. Besides, the *Important Space Law* in the United States also ensures that the government can reasonably expropriate the land with compensation to carry out the construction of public facilities involving defense, water conservancy and transportation[21].

3. Local governments need to be incentivized to mitigate the social problems of a free real estate market

After two decades of development, China's real estate market have significantly improved the living conditions of residents and formed China's largest asset market. Although the government's guidance of land resources has promoted economic development, the government still needs to further improve the rational regulation on the real estate market, and accordingly the Chinese real estate is facing with many problems.

First, the Chinese local governments face more incentives to build industrial parks than housing, causing high housing prices. The Chinese local governments are encouraged to promote economic development by guiding the allocation of land resources. In addition, the long-term tax revenue generated by attracting investment is far higher than the fiscal revenue brought by one-time land transfer (taking into account the compensation for demolition and other issues, the government can actually receive limited income from transfer of land), so the Chinese government give priority to increasing the proportion of

---

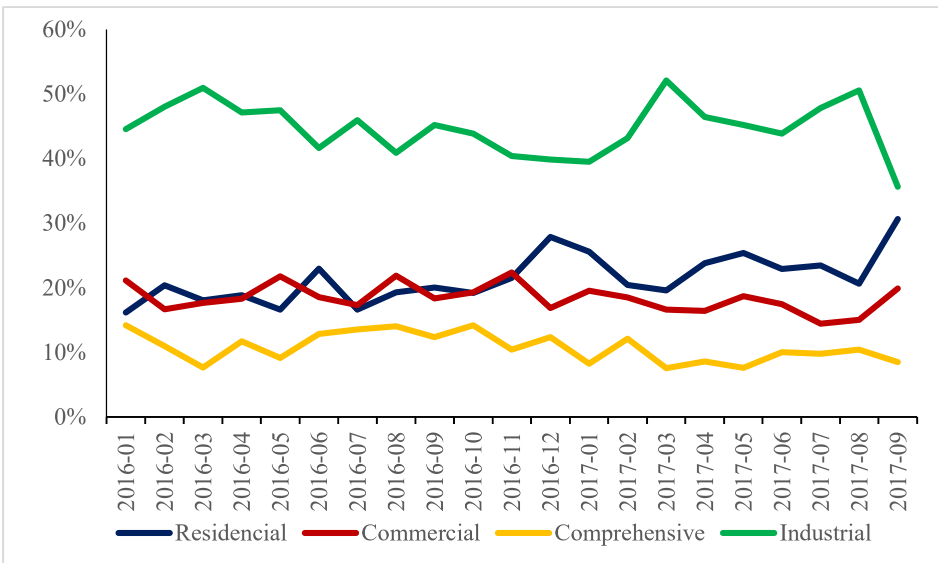
[19] SUN Shiwen, 1999: *Urban Planning System of the United States*, *Urban Planning*, No. 07.

[20] SHI Jian and XU Liqun, 2004: *Discussion on Urban Planning System of the United States: A Case Study of San Diego County*, *Foreign Urban Planning*, No. 04.

[21] BAO Donghai, 2004: *How the United States Prevents the Abuse of Demolition Privileges*, *China Real Estate Information*, No. 02.

industrial land when deciding how to use the land. Under local land transfer system with pursuit of economic growth, the industrial and commercial land proportion in the urban construction land stays at a high level, and the supply of residential land is seriously insufficient. This has greatly promoted rapid development of China's economy, but this rapid development is at the expense of a large amount of land consumption and transfer of land at high prices. In terms of increments, the proportion of residential land in newly added land each year is less than 30%, and the proportion of newly added supply of residential land in first-tier cities is kept at 20% or low. Regarding the stocks, China International Capital Corporation released an analysis report on the supply potential of China's construction land at the beginning of 2010. [22]According to the data in this report, the residential land in Japan accounts for 76% of its land. The residential land in New York accounts for 42.4% of construction land, Seoul, 62.5%, and London, 46.7%. However, this indicator is only 30% in China's cities. The reason why the urban housing prices has been rapidly rising and staying at a high level is the lack of supply of residential land.

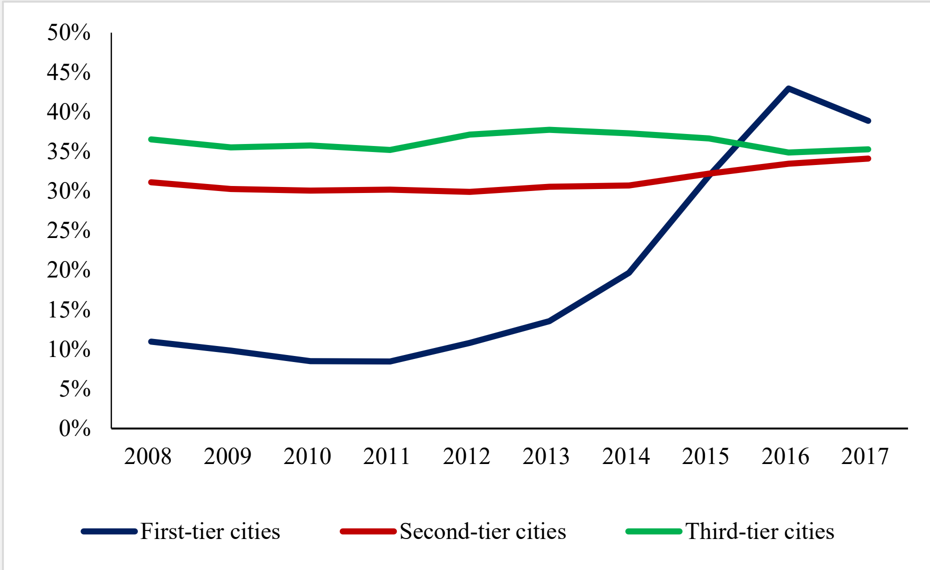
Chart 8: Proportion of Land Supplied: Usage (Monthly)



Source: NBS of China, Wind

[22] CICC-100112: *Real Estate-Land is not scare, so we will analyze the construction land supply potential in China*

Chart 9: Proportion of Residential Land in Total Land Supply



Source: NBS of China, Wind

Second, the real estate market has achieved rapid development as a whole and the per capita housing area has increased fast, but the distribution of housing resources has experienced a serious imbalance. The low- and middle-income people are unable to afford the housing due to the continuous rise in housing prices. This phenomenon is particularly serious in large cities such as Beijing. China's urbanization will encounter similar challenges with Brazil if this contradiction cannot be effectively alleviated.

Last, the government has stronger negotiation ability in the process of the converting land from agricultural to non-agricultural, so the interests of agricultural land owners are damaged. China's provisions on compensation for demolition and settlement of "nail households" have been constantly improved, but they still need to be further clarified. In addition, the government should have different ideas for guiding the land use patterns in different stages of economic development. At present, as the urbanization has developed to a higher level, China is reforming the agricultural land expropriation, and developers in some regions have begun to negotiate directly with farmers.

Since its inception, the Chinese real estate has served as dual position for promoting economic development and improving residence. In the past two decades, the overall positioning of the real estate market was inclined to its economic function. For example, one of the purposes of the housing reform in 1998 was to cope with the Asian financial crisis in 1998. In addition, China made its major efforts to develop and invest in the real estate market in order to answer for the global financial crisis in 2008. Faced with the above problems, China's real estate market is experiencing a transformation of the function from economy to people's livelihood. China should learn from the countries and regions that better perform the function of people's livelihood of the real estate market, and should properly balance and transform between two functions of the real estate market.

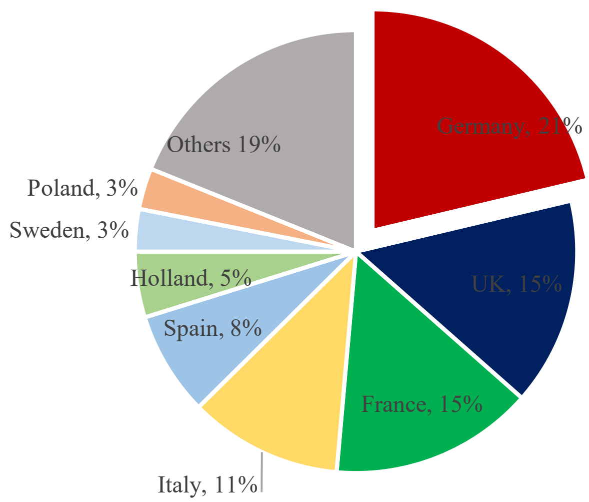
(1) The German approach: To promote and regulate the rental market

Housing prices in Germany have been stable and have not experienced significant fluctuations in the past decade. After the 1990s, European countries emerged from the real estate market bubble burst and experienced a new round of housing price growth, while housing prices in Germany "remained unmoved" and was extremely stable. As shown in Figure X below, during seven or eight years before 2008 economic crisis, the price-to-income ratio of UK, France and the United States continued to expand, raising by an average of 30%, while this ratio in Germany is not only the lowest among four countries, the trend was extremely stable, and this ratio had fallen slightly even in many years. During the economic crisis, the other three countries experienced the bursting of real estate market bubble and their housing prices underwent difference degrees of cliff-like decline. In contrast, the German housing market survived this crisis steadily. Germany contributed to the recovery of the European and even the world economy after economic crisis.

Looking at Germany, in the past ten years, in addition to the negative impact of the global financial crisis in 2009, the German economy has maintained steady growth, and national income has increased. Moreover, the growth rate of Germany's housing price is far lower than that of GDP in the most of time.

In terms of horizontal comparison, the German economy is highly developed and its economic volume accounted for about one fifth of the total economic output of European Union (28 countries) in 2007, but housing prices in Germany were far lower than other European countries. In 2007, the aggregate GDP of Germany, UK and France represented about a half of the EU economy, but the average price of the commodity house in Germany was EUR5,907, far lower than UK (EUR23,932/sqm) and France (EUR12,796/sqm). It can be seen from Figure X that compared with other EU countries, Germany's housing prices were at a low-and-medium level in the EU countries. In short, Germany has created a "miracle" of stable housing market prices for many years at the time as it maintains stable economic growth. This is a rare case in the world, and we should learn from the experience of Germany.

Chart 10: Proportion of GDP for Major EU Countries in 2017



Source: IMF and EuroStat

An important reason why German housing prices are stable is that Germany has a well-established leasing market and imposes strict tenancy control to fully protect tenants' rights and interests. About of 60% of the population in Germany live in rented house, and the remaining 40% have their own homes. The renting rate is as high as 82% in such big cities as Berlin, Hamburg and Frankfurt as well as the surrounding regions. At present, the government-subsidized housing and the market-based rental housing represented about 8% and 92% respectively in the housing renting market in Germany. [23] The German government imposes strict rent control on both government-subsidized rented housing and market-based private leasing markets, namely, the implementation of the rent price guidance system. Local governments and industry associations prepare a list of rent according to different locations, housing structures and quality, and propose the rent guidance price in line with the market conditions of various regions as the reference for execution of the contract by and between the leaser and the lessee. The government also promulgates the corresponding laws and regulations to ensure the implementation of the guidance price. If the rent for a new contract exceeds 20% of the rent of a house with the same quality and on the same district, such rent shall be deemed as the "extra high rent". The tenant can bring a lawsuit in accordance with the *Economic Crimes Act*, demanding that the rent be reduced to a reasonable extent, and the landlord will be fined up to 100,000 marks at the same time. If the rent fixed by the landlord exceeds 50% of guidance price,

[23] YI Yuzhu, 2015: *Housing Renting: A Choice of Most Germans--Germany's Perfect Housing Renting System*, *China Construction*, No. 06.

such landlord shall be deemed to commit the "excessive profit of rent" and be sentenced to up to 3 years in prison. [24]The landlord shall not raise the price arbitrarily once the housing contract is executed. If the rent increases by more than 15% within 3 years, such rent will be also regarded as "extra high rent", and the landlord will be subject to punishment in accordance with law. What's more, the landlord shall not be entitled to terminate the tenancy agreement at its will. Generally speaking, the term of tenancy agreement is indefinite in Germany. Unless the tenant fails to fulfill its obligations as specified in the agreement, the landlord may terminate the agreement only after giving reasonable reasons and notifying the tenant by 9 months' notice.

Second, Germany implements the strict housing pricing mechanism to directly guarantee the stability of housing prices. The housing prices in Germany are determined by independent property appraisers and the appraisers are legally responsible for appraisal prices. What's more, the guidance price have legal effect, all rest estate transactions are obliged to comply with this guidance price, and the transaction price must float with reasonable scope. According to the *Economic Crimes Act*, if the a real estate developer sells the houses at the price higher 20% than the reasonable price, this price shall be deemed as the "excessive housing price", and if the developer fails to reduce the price to the reasonable range immediately, then the seller will be fined up to EUR50,000. If a real estate developer fixes a housing price higher 50% than the guidance price, such developer shall be deemed to commit "excessive profit of housing prices", and the seller may be sentenced to less than three years in prison in addition to the huge fines.[25]

Third, Germany focuses on strengthening the social attribute of housing and weakening its financial attributes. The German government has clarified in its Constitution that the basic functions of the state and the government are to guarantee the living conditions of residents, and the housing is used as the consumption product to meet the needs of citizens rather than investment products. On the one hand, the government provides a stable amount of social welfare housing each year, to meet the housing needs for low-income groups in the form of in-kind subsidies. On the other hand, German government grants monetary housing subsidies for residents to rent and purchase homes nationwide. The speculation in the real estate markets is also severely restricted by the corresponding tax system. The property tax in Germany mainly includes two aspects: property holding tax (property tax) and transaction tax. [26]The former is levied on the

[24] HE Fang and TENG Xiuxiu, 2017: *Reference and Enlightenment from Control on German Residence Renting and Preparation of Rent System*, *Price Theory and Practice*, No. 03.

[25]YE Chuanjie [2017-07-14].*Long-term Regulation--How do we imitate the "New German Model"?* https://www.sohu.com/a/157172867_617246

[26] WANG Jianqiang, 2012: *Experience in German Housing Prices Regulation and its Enlightenment for China*, *Price Theory and Practice*, No. 02.

residential houses each year. The tax rate determined by the federal government is 0.26%-0.60% of the housing appraisal prices, then the local governments multiply the above ratio by the local coefficient, and the final tax rate is generally between 0.98% and 2.84%. The first self-owned home is subject to the lower tax rate, and those holding several homes are subject to a higher property tax. In terms of transaction tax, the laws in Germany provide that the housing transacted within 10 years shall be subject to 3.5% of transfer fee, 1-5% of assessment fee, 25% of capital gain tax and personal income tax with progressive tax rate, and without payment of capital gain tax for a house with more than 10 years. If the house with less than 7 years is transferred, it may be subject to the comprehensive tax rate of up to 50%. The German government has greatly increased the cost of real estate speculation through establishment of tax system to effectively suppress the speculative transactions in housing.

Forth, in addition to economic policy factor, the stability of German housing prices is also attributed to certain historical and political reasons. Germany has been in a long-term division in history until the second half of the 19th century. For a long time, hundreds of independent states have contributed to unique historical conditions, and Germany was not allowed to concentrate resources on development of its capital. Germany has adopted the federalism to this day. Each state has independent economic and cultural autonomy. Resources will not be excessively concentrated in the capital, finally forming a balanced urban model. Germany has not seen a very large-scale city with a population of 10 million, but it has many small and strong world-class cities such as Frankfurt and Munich, which avoid the objective pressure of high housing prices brought about by high population to a certain extent. However, with the acceleration of domestic economy, improvement of the employment market and the lack of supply of existing homes in recent years, some major cities in Germany are also faced with the pressure of the rapid rise in housing prices. Currently, Germany is studying the tax incentives to be promulgated to grant tax preference to the construction of ordinary new houses, increase the supply of housing market and “cool down” the housing market.

We can learn a lot from Germany’s stable real estate: firstly, we will decentralize function of large cities to alleviate the pressure on urban population. At present, China’s high housing price problem is particularly prominent in first-tier and quasi-first-tier cities. These cities have concentrated population and heavy traffic, so the limited land supply within a certain period of time will inevitably lead to objective problems of high housing prices. We will realize the functional division of large cities and gradually drain the population to second- and third-tier cities, alleviating the excessive intensive pressure of large cities and also promoting the balanced development of regions and cities. Secondly, we will imitate the guidance price system of housing prices and rent implemented by Germany, and guide buyers to form rational and reasonable housing rent expectations. In the past ten years, housing prices have continued to grow and other investment channels are limited. Many people still regard the house as the most important investment channel for wealth growth and have speculative psychology. They hope to sell and purchase the houses purchased to realize rapid wealth appreciation. Regarding the fact that people waited in line at the sales office to buy the housing overnight in the second- and third-tier cities in past two years, it is not difficult to see that many speculators expect that the housing market in these cities will replicate the history of rise in housing prices in the first-tier cities such as Beijing, Shanghai, Guangzhou and Shenzhen, and prepare to "try their best". Therefore, it is important to guide the people to form a reasonable expectation of the real estate market. To implement the price guidance system will provide the help and guidance for really forming the reasonable prediction and rational cognition that "housing is used to live, not for speculation". Thirdly, we will severely crack down on speculation, increase capital gain tax on real estate transfer transactions in a short period of time and property holding tax on idle housing, and encourage that the idle housing will be rented to increase the supply of renting market.

（2）The Singaporean and Hong Kong approach: Public housing provided by the government

Singapore is a city state with a small land area and dense population. The population density is about 7,300 persons per square meter. It is one of the world's top three crowed countries, but it has successfully achieved the "Home Ownership Scheme", and the ratio of homeowner households is 90.7%, ranking the second in the world[27]. The main measures taken by the Singapore government to successfully solve the housing problem are to fully develop and provide low-rent and low-cost housing--"HDB flats". A dual-tract system consisting of the public HDB flats as the first and the private housing as the second is formed.

According to the Housing and Development Board (HDB) of Singapore, by March 2017, about 82% of population lived in government-built HDB flats, and the remaining 3% of low-income families rented HDB flats from the government. The government has strict requirements for the purchase and application of HDB flats. Only Singaporean citizens can purchase new HDB flats, and permanent residents can only buy second-hand HDB flats. Except for public HDB flats, the remaining 18% of housing system is made up of private housing. The buyers of private housing mainly include high-income Singaporeans, Singapore permanent residents and foreign investors.

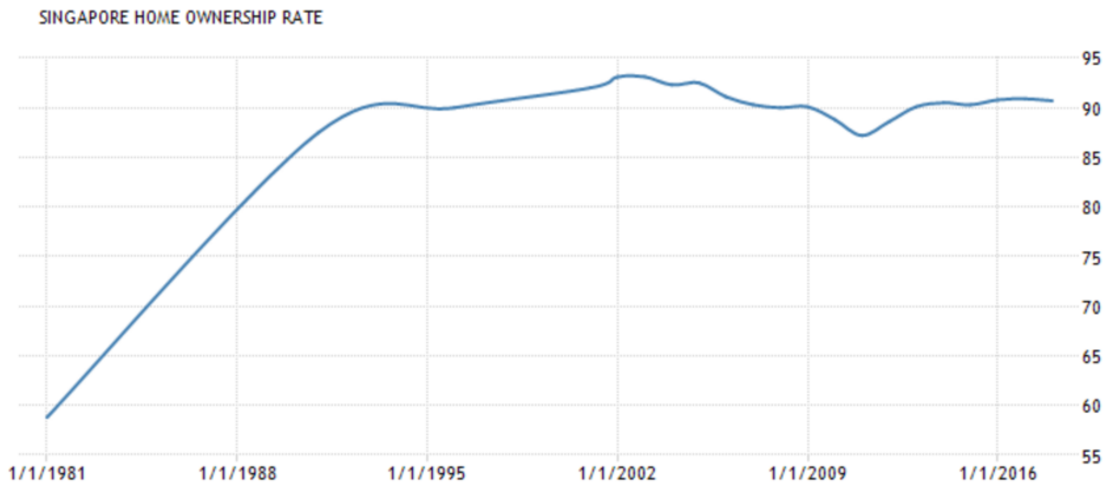
Singapore's existing housing system, which is dominated by HDB flats and supplemented by private housing, is not "one-stop". After the Singaporean autonomy, the government's housing policy has gone through five stages. The main trend is that public

[27]Wikepedia https://en.wikipedia.org/wiki/List_of_countries_by_home_ownership_rate

HDB flats have gradually shifted from rent to ownership. A diversified residential market will be developed when the residents self-owned house rate is stabilized to a certain degree. Early the Singapore's autonomy, the government promulgated the *Housing Development Law* in 1960[28] to establish the Housing Development Board (HDB) and build low-standard, small-sized houses on a large scale, so as to mainly meet the housing renting demand of law-and middle-income people. Subsequently, in order to enhance the national identity of the people, the government began to encourage the low-and meddle-income groups to purchase HDB flats by installments, gradually increasing the housing ownership rate. In 1964, the Singapore government issued the "Home Ownership Scheme" to encourage the home ownership; and in 1968, the *Central Provident Fund (Amendment) Act* was introduced to allow home buyers to use the central provident fund to purchase public HDB flats. Since the 1970s, the scope of the subjects to which the public HDB flats are provided has gradually expanded from low-income to middle-income groups. By 1975, 47% of the country's population lived in HDB flats. After the problem of housing shortage for low- and middle-income residents was basically solved, the government begun to focus on improving the quality of HDB flats, increase the types of housing units, and develop the high-rise and high-density housing. Around the 1980s, the public housing market entered a mature period, the supply of HDB flats become saturated, the number of new houses was significantly reduced each year and the resale transactions of HDB flats gradually increased. The ratio of homeowner households reached around 90% in 1990, and the proportion of people living in HDB flats peaked at about 87%. Since the 1990s, the housing security function of small-sized HDB flats had been fully utilized, and the supply of HDB flats begun to be dominated by large-sized units (four or five bedrooms). With the improvement of people's income level and the development of globalization, the demands of private housing for high-income residents, permanent residents and foreigners are growing. The government began to give policy support to the private residential market and promote its gradual development. The proportion of the population living in HDB flats has also begun to decline, from 87% in 1990 to 82% in 2017.

[28] China Report Network, [2017-10-16]. *Analysis of China's Real Estate Market Status and Research Report on Investment Development Trend*. http://market.chinabaogao.com/fangchan/10162a4N2017.html

Chart 11: Ratio of Homeowner Households in Singapore



Source: Trading Economics, Singapore Statistics

The public HDB flats in Singapore are characterized by government subsidies for construction, adequate supply and stable prices. The Singapore government is the only seller of new HDB flats and fully controls the pricing power of HDB flats. It implements this policy on prices of HDB flats in order to maintain a stable low growth rate. Secondly, the Singapore laws provide very strict and clear rules for the application of the public HDB flats[29]. To be specific, there are clear income restrictions for purchasing new public HDB flats. The people with the monthly household income exceeding the upper limit only apply for buying the HDB flat on the second-hand market. Furthermore, each family can only buy one set of flat. If you want to purchase a second set, you can buy the one that is more expensive than the new HDB flats from the second-hand market only after selling the first set. What's more, the laws also require the identity of the applicants of HDB flats, namely, the applicants must be Singapore citizens or Singapore permanent residents. Thirdly, besides the construction and supply of HDB flats, the government has implemented a clear and reasonable system of public HDB flats distribution, and adopted the purchase and rent subsidy policy in order to increase the residents self-owned house rate. For example, in terms of rents, the government requires that the rents generally account for 4 to 15% of household income, [30] far lower than the market-based housing prices. Regarding the housing prices, the government has set the principle that 90% of families can afford three-bedroom flats, and 70% of families can afford four-bedroom homes. HDB provides corresponding purchase price concessions according to different types of HDB flats. The

[29] ZHANG Handong, 2018: *Singapore's HDB Flats System*, *Zhejiang Economics*, No. 01.

[30]LI Junfu, LI Wei, LI Zhigang and XUE Desheng, 2012.*Study and Reference of Singapore's Affordable Housing Policy*, *International Urban Planning*, No. 04.

smaller the size of the HDB flats, the higher the discount. For example, the three-bedroom and four-bedroom discount is 44% and 33% respectively, and the like. In addition, the government also has directly granted the housing purchase and rent money subsidies to some eligible people, such as first-time married buyers, single Singapore citizens, and low- and middle-income people.

Singapore has perfected its established HDB flats System. Objectively limited by the extremely low per capita land occupation rate, it has realized the "Home Ownership Scheme", and is leading in the world's home ownership rate. The enlightenment and reference for us includes:

First, the government should directly participate in the supply and management of the housing market. Singapore implements a market economy, but its housing construction and distribution do not rely on the market forces entirely. The government establishes and fully guides the housing market dominated by the affordable HDB flats system. Its government not only sets up a special administrative management agency-HDB to conduct the centralized planning, construction, distribution and management, but also establishes a financial support system including the corresponding provident fund system and promulgates perfect laws and regulations to guarantee the normal and smooth operation of HDB flats system. It turns out that a perfect housing system needs the cooperation and coordination between the government and market.

Second, the government should establish an effective land supply mechanism. The Singapore government has implemented a mandatory land acquisition policy and forced the expropriation of private land as construction land through legislation. As limited by the extremely scarce land resources, Singapore has become one of the few countries in the world to include the residential, commercial and industrial land into the scope of government land acquisition[31]. At present, the total land area of the Singapore government accounts for about 90% of the national land area. Therefore, the Singapore government has sufficient capacity to effectively regulate land supply and meets the needs of construction land of HDB flats in a timely manner[32]. The land market is closely related to the real estate market. To regulate and manage the real estate market, we should first reorganize the relationship between the government and the land market in order to secure a stable real estate market with a sound land market.

Third, the government should improve the provident fund system. Singapore's provident fund savings are important financial support for the HDB flats and also financing

[31] LIU Anlin, 2005: *Measures of Intensive Land Use in Singapore and its Development Trends*, *Science and Technology Management of State Land and Resources*, No. 04.

[32] XIE Baofu, 2015: *Success and Implication of Singapore's HDB Flats Policy-and Discussion of Enlightenment for China's Affordable Housing Policy*, *China Administration*, No. 05.

guarantee for individual purchase of HDB flats. Singapore implements a comprehensive central provident fund system involving pension, housing, medical care, insurance, education and other purposes. Such system consists of ordinary, medical and special account. The ordinary account can be used to purchase the house, and is a mandatory savings plan in essence. The employee is required to pay 20% of its own salaries to individual account, and the employer is required to pay about 17% to the account of employees[33]. The provident fund paid by the individual and employer shall be uniformly collected, managed and operated by the Central Provident Fund Board (CPFB). On the one hand, in addition to retaining the withdrawal of its members, CPFB will transfer about 80% of the provident fund to the Central Government through the purchase of government bonds, and then the government will use this fund to build and subsidize the public HDB flats in the form of allocation and loan. On the other hand, the provident fund is also a part of the source of funds for residents to buy a house. According to the *Central Provident Fund (Amendment) Act* promulgated in 1968, the members of Central Provident Fund may use the provident fund deposits to directly pay the partial price for purchase of a HDB flat, and subsequently the government adopted a more liberal policy so these members can use the provident fund deposits to pay all prices for purchase a HDB flat. In certain circumstances, with the provident fund, price preference and housing subsidies, Singapore citizens can even purchase a house with zero down payment, and the residents' ability to buy homes is greatly improved. [34]This respect is worth learning by us. Accordingly, we should improve the provident fund system to increase the residents' home affordability, guide the flow of domestic provident funds to the construction of government-subsidized housing, and also attract the other insurance fund into construction of government-subsidized in order to ensure adequate funding for public affordable housing construction.

[33] The payment rate will gradually decrease after the employee is over 50 years old.

[34] BAO Zonghua, 2005: *See Importance of Regulating Housing Prices from the Experience of Singapore and Germany*, *China Real Estate Information*, No. 07.

SECTION III

FINANCIAL DEEPENING AND FINANCIAL STABILITY

EXECUTIVE SUMMARY

The cultivation and regulation of the financial system is a key component of Chinese economy's forty years of Reform and Opening-up. Capital is always emphasized in the mainstream economic growth models and financial market is the very market that allocates capital as a key element. In the modern history, finance played an important role in the economic rise of great powers such as the UK, the US, Japan and Germany. The cultivation and regulation of the financial system is also indispensable to China's great achievements since the start of the Reform and Opening-up. During his 1991 inspection in Shanghai, Deng Xiaoping was quoted as saying, "finance is very important, because it is the core of the modern economy. Handling financial affairs well is the key to success in this sphere". In this section, we will focus on some stylized facts and a brief history of the cultivation and regulation of the financial system in the past forty years of the Reform and Opening-up before summarizing some economics lessons we can learn from the process.

Our main argument is that a steady progress of local-currency-based financial deepening is essential for fast investment in the real economy, channeling savings into investment. However, financial deepening is based on financial stability. To guarantee this, the government needs to proactively stay on top and mitigate financial risk.

I. STYLIZED FACTS

1. Achievement 1: The Chinese economy has managed to avoid financial crisis during the past 40 years

First of all, we feel it necessary to define the concept of "financial crisis". The academia tends to categorize financial crisis into currency exchange crisis, hyperinflation, international balance risk, debt crisis and banking crisis (Claessens and Kose, 2013[1]; Reinhart and Rogoff, 2009[2]; Eichengreen and Bordo, 2003[3]). Specific criteria include quantitative index and critical events. For quantitative index, , for

[1] Claessens, Stijn, and Mr M. Ayhan Kose: Financial Crises Explanations, Types, and Implications. No. 13-28. International Monetary Fund, 2013.

[2] Reinhart, Carmen M., and Kenneth S. Rogoff: This Time is Different: Eight Centuries of Financial Folly. Princeton University Press, 2009.

[3] Eichengreen, Barry, and Michael Bordo: Crises Now and Then: What Lessons From the Last Era of Financial Globalization? Monetary History, Exchange Rate and Financial Markets: Essays in Honor of Charles Goodhard, Cheltenham: Edward Elgar 2 (2003): 52-91.

instance, Frankel and Rose (1996)[4] define currency crisis as the exchange rate depreciation in a particular year exceeding 25% and at least 10% higher than the previous year. Reinhart and Rogoff (2009) define currency crisis as the exchange rate depreciation in a particular year exceeding 15%. For critical events, for instance, the bankruptcy of Lehman Brothers in 2008 is often regarded as the symbol of the outbreak of the 2008 global financial crisis.

According to this literature, we may argue that the Chinese economy has managed to avoid financial crisis during the past 40 years.

First, in light of currency exchange rate, during 1980-1994, China implemented the "dual track" exchange rate system in which official exchange rate and adjusted market exchange rate coexisted. During that period, the exchange rate used to fluctuate drastically, and this actually mainly reflected the government's subjective will and active adjustment. In 1994, the foreign exchange management system was greatly changed and China made it clear that the ultimate objective of RMB reform is free exchange. Official exchange rate and adjusted market exchange rate were unified, and RMB began to be unofficially pegged to the US dollar. The exchange rate of 1 US dollar to RMB rose quickly from ~5.8 to ~8.7. After that, the exchange rate remained basically stable. After the "811" exchange rate reform in 2015, the RMB began to depreciate but the maximum year-over-year monthly depreciation rate was merely ~7.5%. **We can say that there has been no currency exchange crisis since the start of China's Reform and Opening-up**.

Second, in terms of inflation, Reinhart and Rogoff (2009) define hyperinflation as annualized inflation rate exceeding 40% when studying the inflation problems of economies after the Second World War. **Although China used to experience some periods of high inflation, the peak inflation (month over month) was below 30% and was quickly controlled, and no inflation crisis occurred.**

Third, in terms of balance of payments, according to the definition given by Forbes and Warnock (2011)[5], the combined growth of capital inflow in most recent four quarters being below the average value by 2 standard deviations is deemed one of the signs of "sudden stop" of capital inflow. According to data of China's international balance of payments (1998-2018) (In CEIC database, quarterly data in China's international balance of payments has used "non-reserve financial account" to measure

[4] Frankel J A, Rose A K. Currency crashes in emerging markets: An empirical treatment. Journal of international Economics, 1996, 41(3-4): 351-366.

[5] Forbes, Kristin J., and Francis E. Warnock: Capital Flow Waves: Surges, Stops, Flight, and Retrenchment, Journal of International Economics 88.2 (2012): 235-251.

capital inflows since 1998), **China has not experienced a "sudden stop" of capital inflows.**

Fourth, in terms of foreign debt crisis, the proportion of China's total foreign debts in its GDP is not high (the peak value is 17%), and there has been no sovereign debt crisis or systematic corporate foreign debt default. In terms of domestic debt risk, although China's rising macroeconomic leverage (especially local government debt and non-financial corporate debt) has attracted much attention over recent years, China addressed its debt crises fairly well within forty years of the Reform and Opening-up. For instance, China cleared up "chain debts" among enterprises in 1991. Around 2000, China disposed of bad assets of national commercial banks (they were chiefly enterprise loans). **In 2017, China actively and prudently resolved accumulated risks of local government debts, and there was neither bankruptcy of local government nor systematic bankruptcy of enterprises and financial institutions.**

Fifth, in terms of banking crisis, although there were times when the risks of individual banks flared up (e.g., the 1998 run on Hainan Development Bank) and in 1995-1997 some people argued that "the Chinese banking system is technically bankrupt" (the NPL ratio of banks exceeded 20% or even reached 40%, and their capital adequacy ratio was even negative). However, on the whole, **the Chinese government has maintained the stability of its banking system, and a typical example is that the government helped national commercial banks strip off their bad assets and go public during 2005-2010.**

It is noted that there are disagreements in the literature with respect to whether "stock market crash" (collapse in stock indexes within a short period of time) is treated as "financial crisis". Researchers like Friedman and Schwartz (1963)[6] and Eichengreen and Bordo (2003) tend to define a financial crisis from the perspective of "real economic effects" instead of "nominal effects" and pay particular attention to bank crisis and currency crisis. In fact, Samuelson (1966) once sarcastically commented that Wall Street indexes predicted nine out of the last five recessions.[7] Schwartz (1987)[8] argues that pure stock market decline or property price decline can be only seen as "pseudo crisis". However, people like Aliber and Kindleberger (2017)[9] maintain that the scope of financial crisis should be broader and include collapse in asset price.

---

[6] Friedman M, Schwartz A. A monetary history ofthe United States. Princeton University Press, 1963.

[7] Quoted in: John C Bluedorn et al. Do Asset Price Drops Foreshadow Recessions? (2013), p. 4

[8] Schwartz, Anna J.: Real and Pseudo-financial Crises: Money in Historical Perspective. University of Chicago Press, 1987. 271-288.

[9] Aliber, Robert Z., and Charles P. Kindleberger: Manias, Panics, and Crashes: A History of Financial Crises. Springer, 2017.

Reinhart and Rogoff (2009) introduce the concept of Kindleberger into a systematic analysis of financial crisis and use the method provided by Barro and Ursua (2009)[10] to define "stock market crash", i.e., cumulative, multi-year inflation-adjusted real returns that were –0.25 or less. But as a matter of fact, Reinhart and Rogoff (2009) do not shed much light on the analysis of "pure stock market crash" (e.g., the dot.com bubble burst in the US in 2001).

Based on the definition given by Barro and Ursua (2009), the time periods of Chinese stock market crashes are: 1993-1995 (-72.7%), 2001-2005 (-58.4%), 2008 (-68.5%), 2010-2011 (-34.2%), 2018 (-24.5% in the first ten months).[11]

Just as we are about to point out, one of the biggest problems facing the Chinese stock market is the limited function in rewarding the investors. The limited impact of stock market crisis on real economic activities is mainly reflected in the following two aspects: first, stocks are not a major investment target of residents. At present, the total market capitalization of the entire stock market is less than RMB50 trillion. In contrast, the balance of residents' deposits is ~RMB65 trillion, the balance of bonds exceeds RMB50 trillion, the balance of financial products exceeds RMB30 trillion, and the total market capitalization of real estate market is ~RMB280 trillion[12]. Second, stock financing is not a major financing method for Chinese enterprises and share price plays a limited role in corporate investment. As is discovered by Wang, Wu and Yang (2009)[13], due to limited informativeness of stock prices, corporate investment is not significantly influenced by fluctuations in the market capitalization of relevant companies. In this sense, we are more inclined to adopt the reasoning of Eichengreen and Bordo (2003) and define financial crisis from the perspective of real economic effects. **None of the previous "crashes" of the Chinese stock market led to systematic business failures, bankruptcy of financial institutions and a serious decline in residents' living standards, and we do not take such crashes as the occurrence of financial crisis.**

---

[10] Barro, Robert J., and José F. Ursúa: Stock-market crashes and depressions. No. w14760. National Bureau of Economic Research, 2009.

[11] It is noted that the reason why the 2015 "stock market crash" is not included here is that the literature including Barro and Ursua (2009) emphasizes that a stock market crash means "a long period of decline" instead of a "short period of fluctuations" of the stock market. In 2015, the Chinese stock market experienced a period of "sharp growth" before declining. The stock market generally exhibited a rising trend in the whole year.

[12] The total market capitalization of the Chinese real estate market is ~RMB280 trillion based on our forecast on China's real estate sector.

[13] Wang Y, Wu L, Yang Y.: Does the Stock Market Affect Firm Investment in China? A price Informativeness Perspective [J]. Journal of Banking & Finance, 2009, 33(1): 53-62.

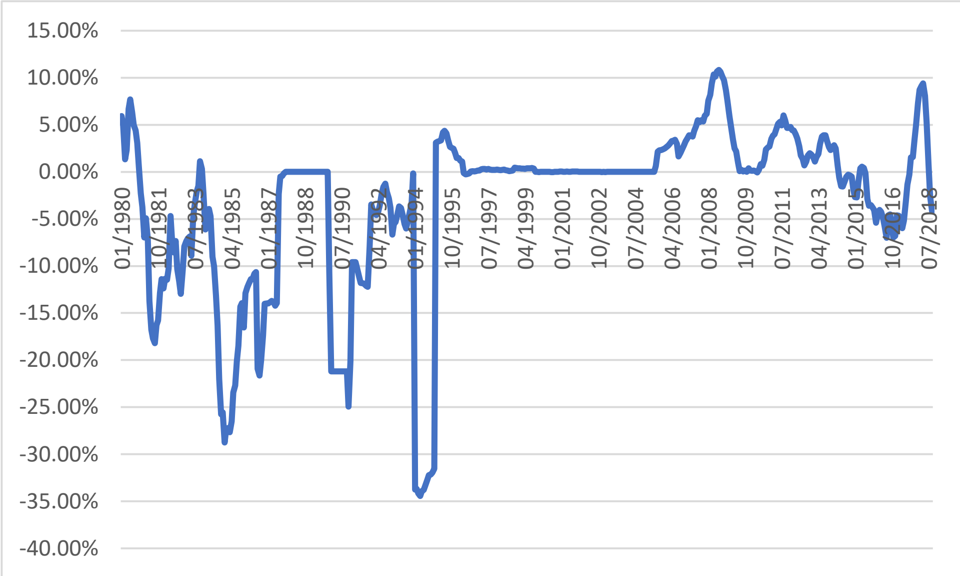


Chart 1 Fluctuations in the exchange rate of RMB against USD (on a YoY basis)

Source: CEIC Database

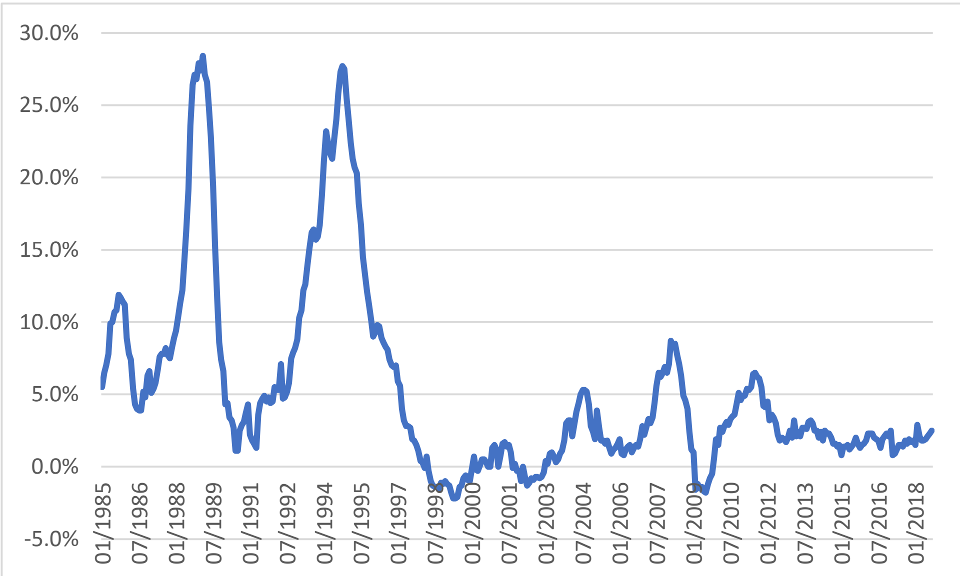


Chart 2 Inflation (Consumer Price Index growth, monthly, YoY)

Source: CEIC Database

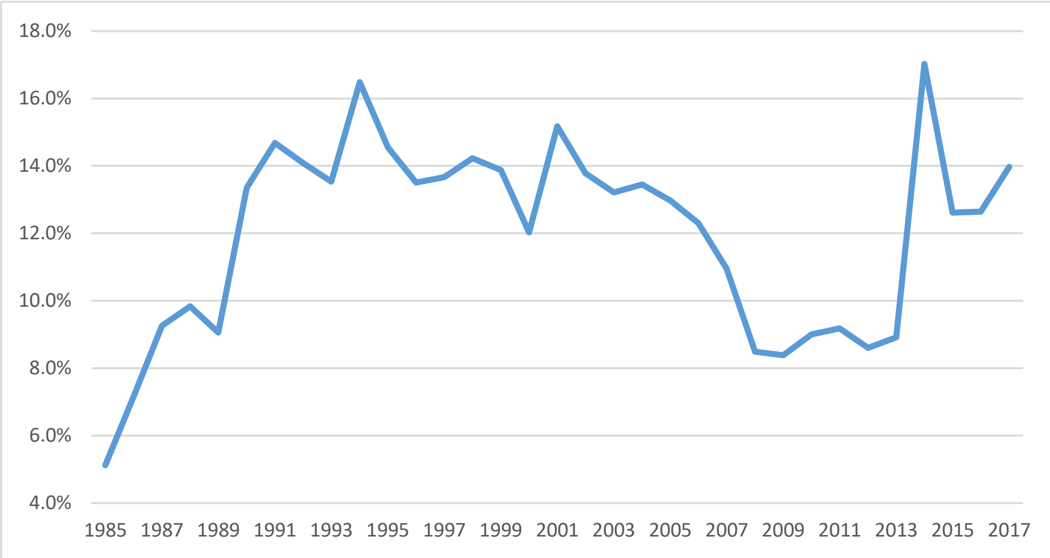


Chart 3 The ratio of China's foreign debts to its GDP

Source: CEIC Database

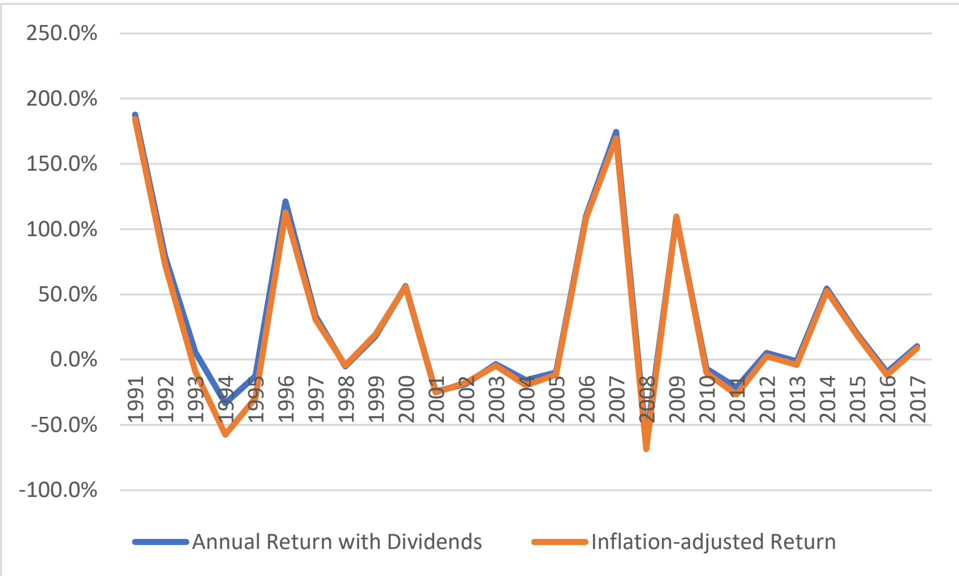


Chart 4 Annual return of Chinese stock market (composite A-shares market, tradable market value weighted)

Source: CSMAR Database, CEIC Database, ACCEPT calculations.

Transitional economies tend to be hit by financial crisis after a certain period of high-speed growth. In history, the Japanese economy grew fast after the Meiji Restoration and "profited a lot from war" via export trade during the First World War. Later on, Japan fell into economic downturn and the "Showa Financial Crisis" broke out. South Korean economy began to take off in 1960s but was hard hit during the 1998 Asian financial crisis and had to resort to the International Monetary Fund (IMF). In 1930s-1980s, Latin American countries adopted the import substitution industrialization and their economies continued to grow. However, their foreign debts increased dramatically, and those economies suffered from debt crises successively, such as Latin American debt crisis in 1982, Mexico financial crisis in 1994 and Brazil financial crisis in 1999. Even the United States was frequently hit by financial crises during its early development stage. Financial panic (bank failures, economic recession) broke out in the US in 1792, 1797, 1819, 1837, 1857, 1873, 1884 and 1893 respectively.[14] China outshines others in this respect. In the last forty years of its Reform and Opening-up, China have been enjoying continued high-speed growth without financial crisis.

On the one hand, China fended off the impact of global and regional financial crises. For instance, during the Asian financial crisis in 1998, the Chinese stock market was relatively stable and even grew positively as compared with countries like Japan and South Korea, and the RMB exchange rate remained stable and China's GDP maintained high-speed growth. The Chinese economy resisted the spread of the crisis and made a huge contribution to regional stability and economic recovery. In 2008, when the US subprime crisis evolved into a global financial crisis, the Chinese government responded actively. As a result, China's economic growth stayed at a relatively high level and the real estate price fell only slightly before recovering quickly.

On the other hand, China tried to avoid the occurrence of its own financial crises. For example, at the end of 1990s, the problem concerning non-performing loans of domestic banks began to emerge intensively and the Chinese government intervened in time. Thanks to concerted efforts of such departments as State Economic and Trade Commission, the People's Bank of China (PBOC) and the Ministry of Finance, banks stripped off their non-performing assets, which were transferred into the four new-established asset management companies. As a result, the successful reinvigoration of those banks prevented the outbreak of a potential financial crisis. Just imagine if China also fell into a financial crisis triggered by bad loans of its banks during the Asian financial crisis, Asia would have lost its most important stabilizer and the financial crisis would have exacerbated and evolved into a global financial crisis or turmoil[15].

[14] https://en.wikipedia.org/wiki/List_of_banking_crises

[15] For specific measures taken by the Chinese government, refer to 1 (4) of Part II of this Article.

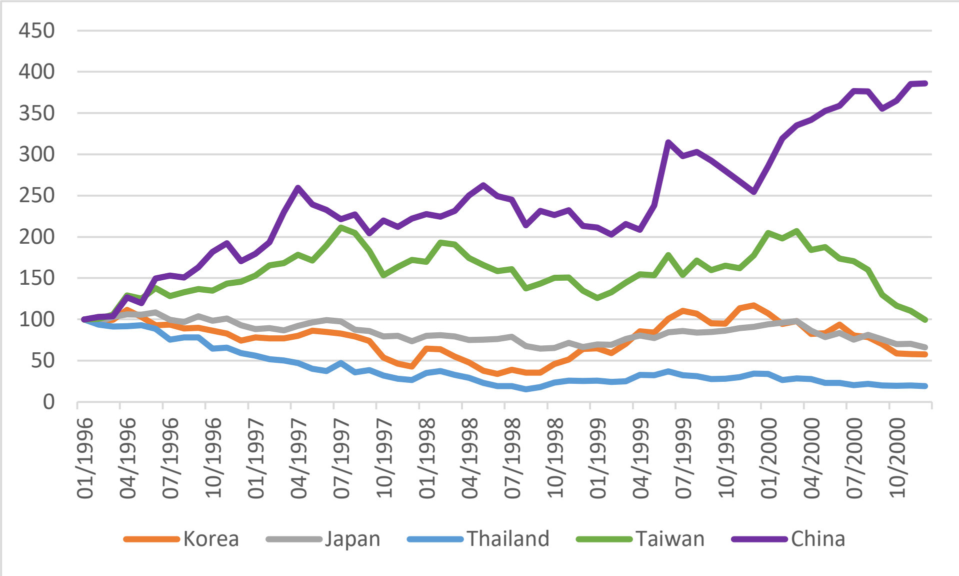


Chart 5 The trend of stock indexes in some economies during the 1998 Asian financial crisis (January 1996 = 100)

Source: CEIC Database

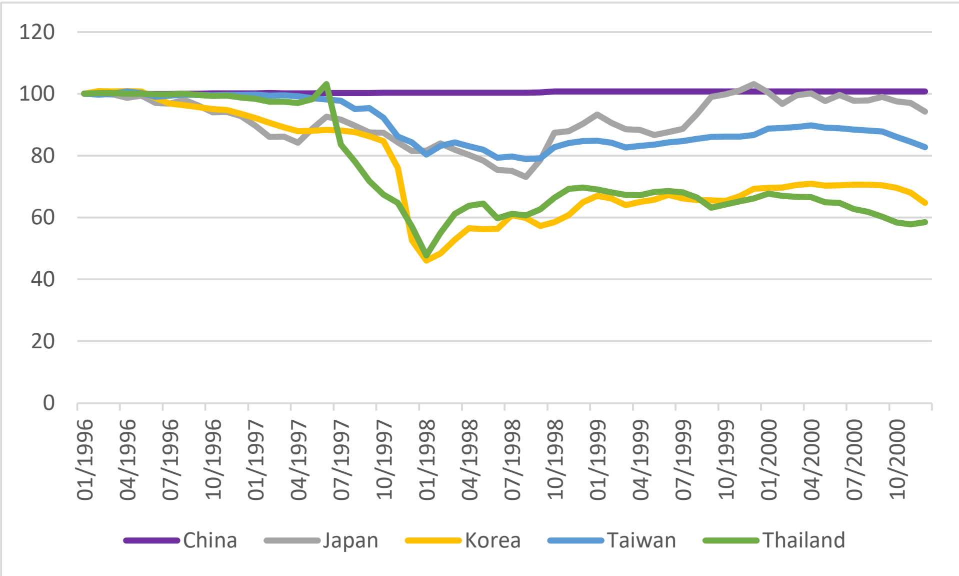


Chart 6 Exchange rate fluctuations in some economies during the Asian financial crisis (exchange rate of 1 unit of home currency against the US dollar in January 1996 is used as base number)

Source: CEIC Database

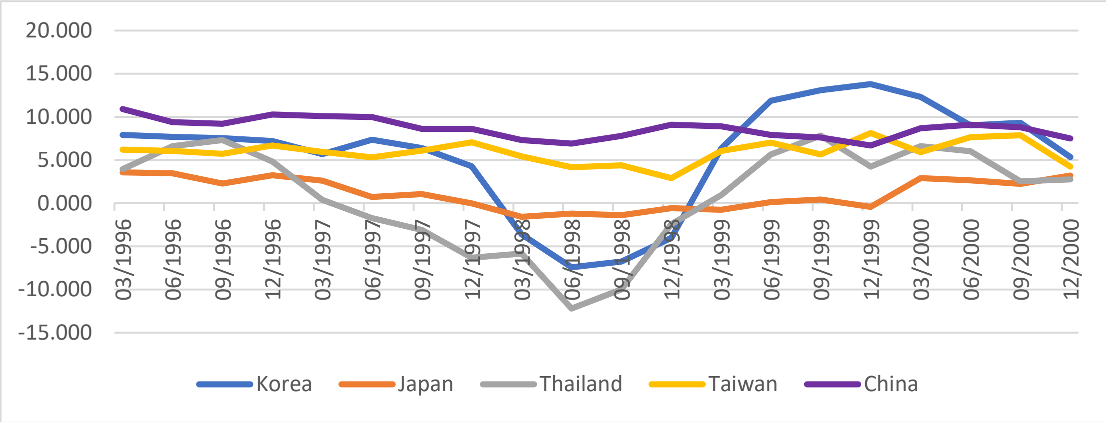


Chart 7 GDP growth of some economies during the 1998 Asian financial crisis (quarterly)

Source: CEIC Database

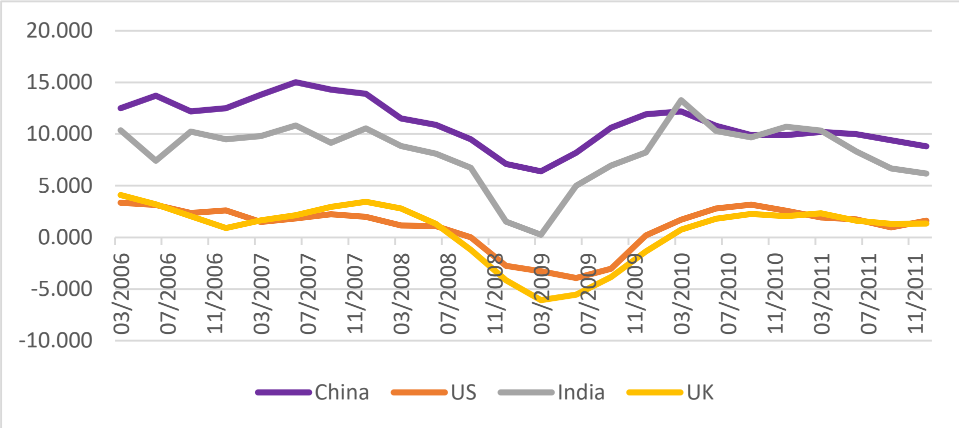


Chart 8 GDP growth of some economies before and after the 2008 global financial crisis (quarterly comparison on a YoY basis, %)

Source: CEIC Database

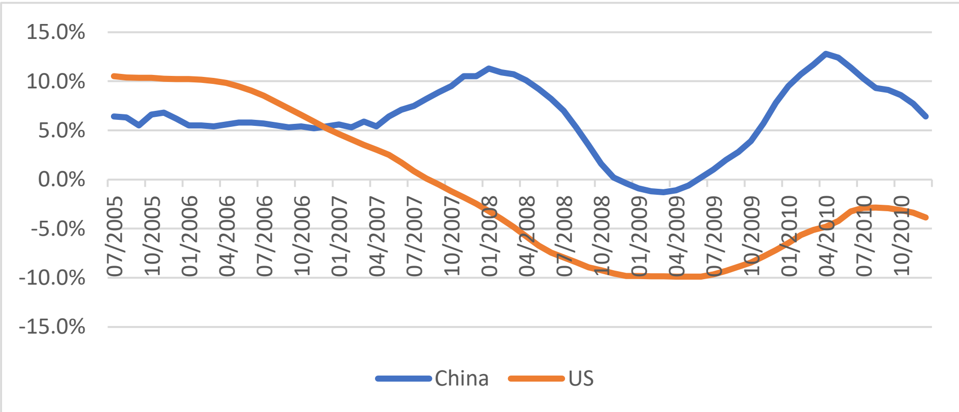


Chart 9 Comparison between housing price fluctuations in China and the US before and after the 2008 financial crisis (monthly comparison on a YoY basis, %)

Source: Zillow, CEIC Database

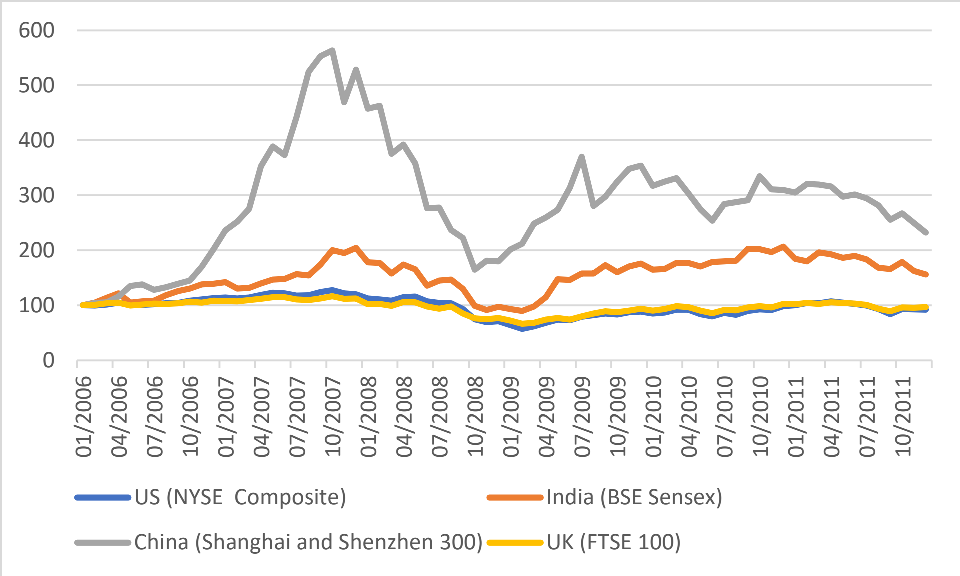


Chart 10 The trend of stock indexes in major markets before and after the 2008 financial crisis (January 2006 = 100)

Source: wind

2. Achievement 2: The financial system has been supporting the development of the real economy

The financial market played a significant part in the rise of such powers as the UK, the Netherlands, US and Germany. Karl Marx knew the importance of financial capital in promoting the growth of the real economy. He once said, "if the world had to wait for a certain capital to grow big enough to build a railway, there would be no railway today on the world. But the matter is completed by capital centralizing of share-issuing company in a flash". Through a review of China's development within forty years of the Reform and Opening-up, the financial market has made a great contribution. In particular, the market has played a positive role in such aspects as enterprise growth, reform of State-owned enterprises (SOEs), real estate development, infrastructure investment and innovation & entrepreneurship, and helped boost the development, transformation and upgrade of the Chinese economy. **Within the past four decades, the financial market assumed the role in converting national savings continually accumulated during China's development into investments, and meanwhile steady and local-currency-based financial deepening ensured that the Chinese economy always remained generally stable during its rapid growth.** Aggregate financing represents the financing of financial system to the real economy. If we use capital formation to indicate the aggregate financing of the real economy, then the ratio of aggregate financing to capital formation can to some extent measure the contribution of the financial system to the real economy. Our estimation shows that the contribution of the financial system to the real economy remained at 50%-60% in most years and even exceeded 80% in certain years during the period between 2002 and 2017.

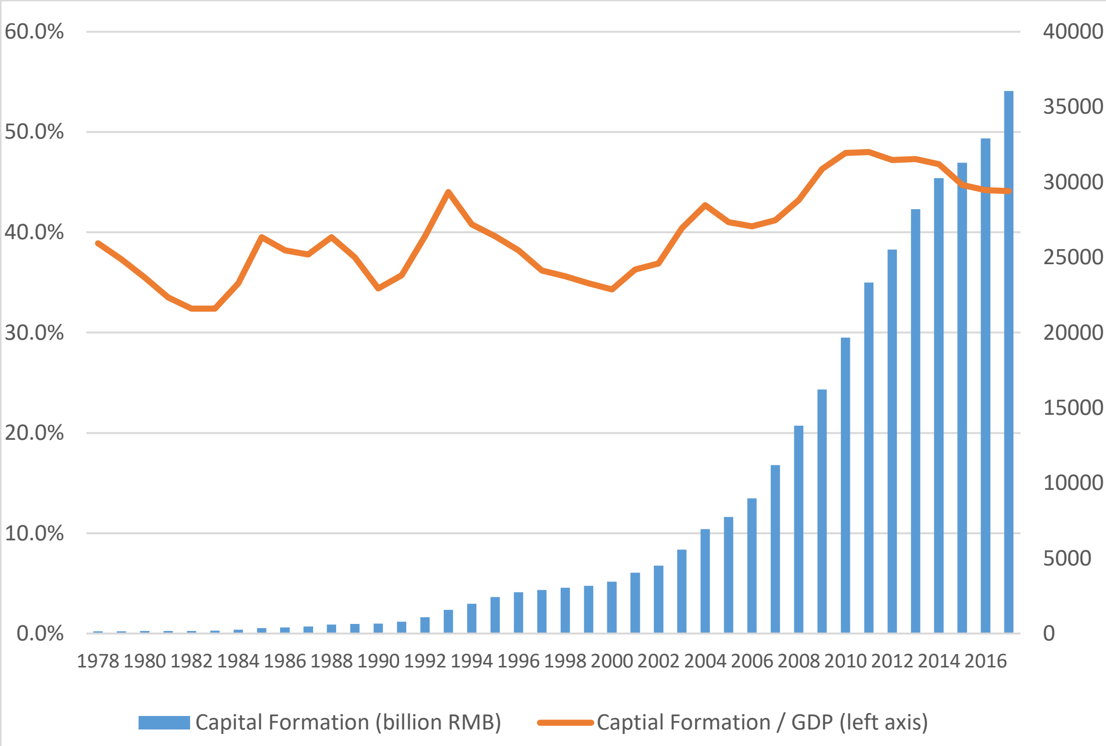


Chart 11 Change in China's capital formation and the ratio of China's capital formation to its GDP (1978-2017)

Source: National Bureau of Statistics of China

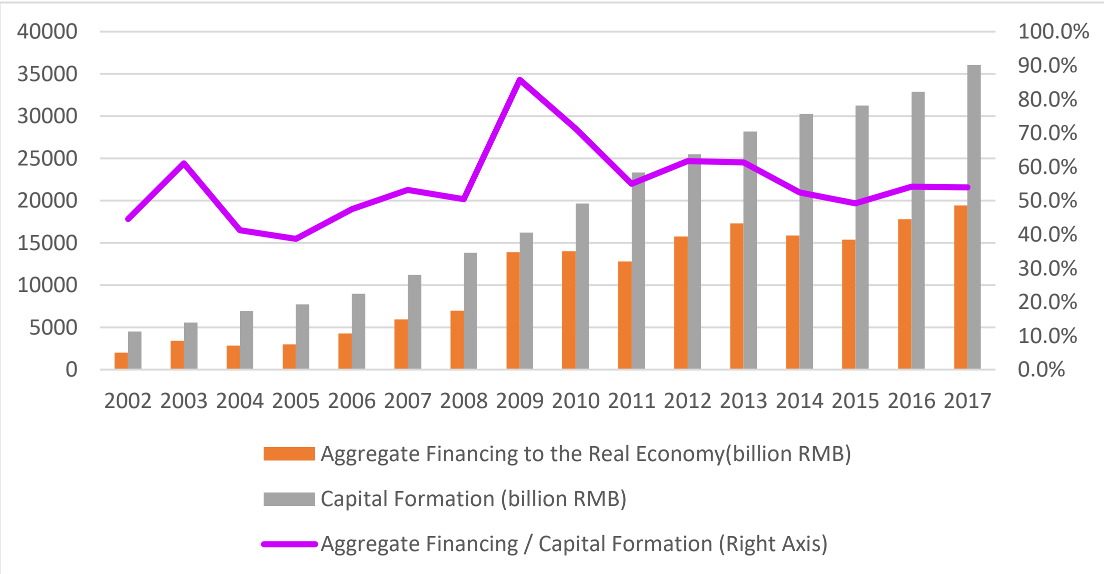


Chart 12 The contribution of aggregate financing to capital formation

Sources: National Bureau of Statistics of China, ACCEPT

Over the past forty years, the Chinese financial system has provided key support for the development of a large number of enterprises from small to big and from weak to strong. Enterprises are the most important carrier of economic growth, and the great achievement in Chinese economy as from the Reform and

Opening-up is created by various types of emerging and growing enterprises to a great extent. The number of Chinese enterprises increased from merely more than 200,000 in 1978 to 140 million in 2017. According to data from State Administration for Industry and Commerce, the daily average number of newly registered enterprises in 2017 reached 16,600. Within forty years when enterprises of various types were established and grew stronger, the Chinese financial system provided critical support, which included not only indirect financing support from the banking system but also direct financing support from the bond market and stock market. In light of indirect financing, credit support from banks played a key role in contribution to the development of a large number of high-quality enterprises. According to data from the People's Bank of China, the balance of all loans granted by financial institutions in China to the real economy by the end of June 2018 was RMB125.6 trillion. In light of direct financing, many enterprises developed fast and conducted overseas expansion thanks to IPO, additional issuance, merger & acquisition (M&A), reorganization and other functions of the capital market. Since the capital market was set up 28 years ago, the A shares market has realized RMB12 trillion of stock financings and RMB17 trillion of M&A and reorganization on an accumulative basis.

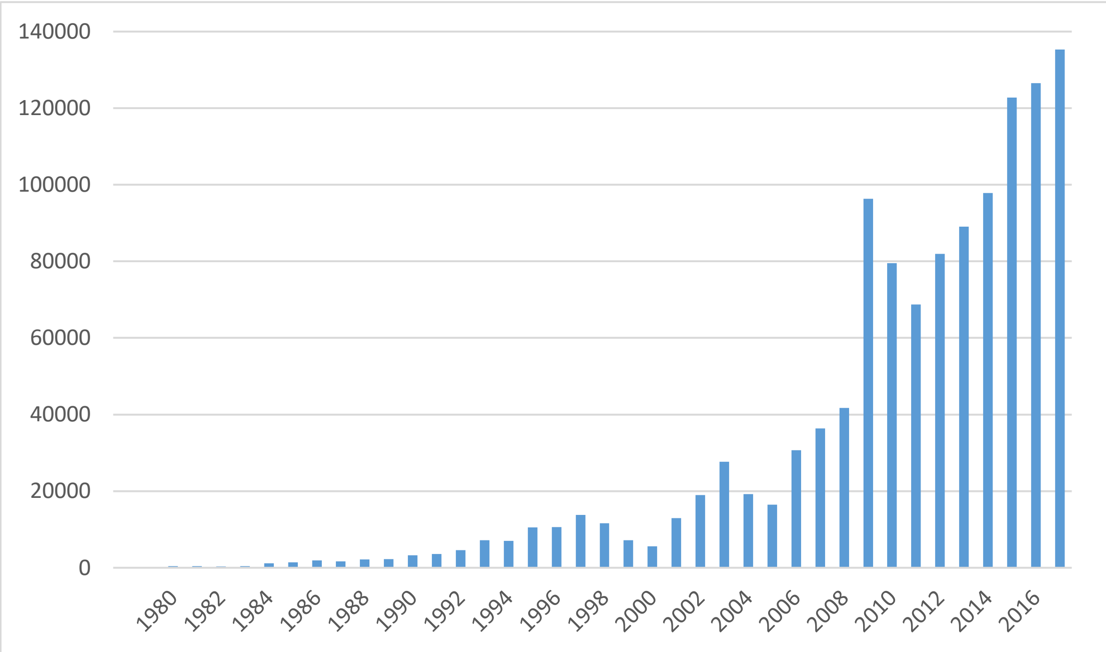


Chart 13 The amount of new RMB loans granted by banking financial institutions to the real economy (RMB100 million)

Source: People's Bank of China

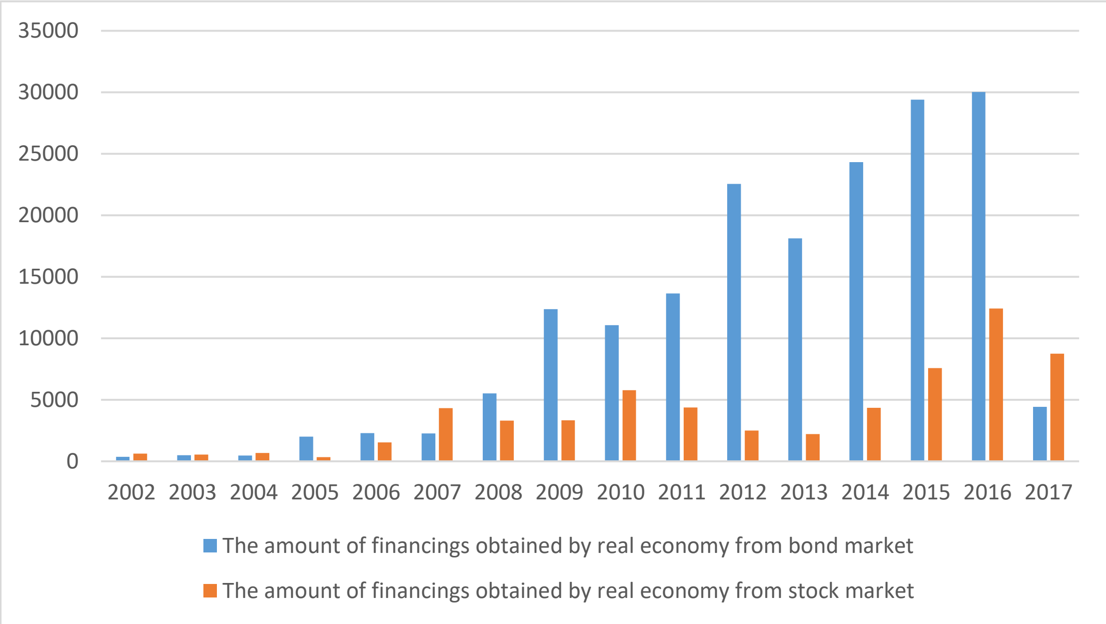


Chart 14 The amount of financings obtained by real economy from stock market and bond market

Source: People's Bank of China, China Securities Regulatory Commission

The capital market has played an important part in supporting the reform of State-owned enterprises (SOEs). During the transition from planned economy to market economy after the Reform and Opening-up, problems existing in State-owned enterprises like government departments' running or managing enterprises, blind expansion, low efficiency and inadequate incentive gradually evolved in serious debt issues in middle and late 1990s. The stock market, which was still at an early development stage, provided the conveniences for solving the funding and management dilemmas of SOEs. Firstly, the stock market reversed the long-term loss-making status of some SOEs. SOEs secured fund support urgently needed for their development through the capital market, and thus renovated and transformed their equipment and hired high-caliber technical and management talents. All this laid a solid foundation for their turning losses into profits. Secondly, the stock market solved the problem of grossly inadequate incentive existing in SOEs. The results of business operations can be reflected in price fluctuations in the capital market, and market investors can determine the survival or elimination of enterprises by "voting with feet". Thirdly, the stock market solved the corporate governance issue of SOEs well. After the IPO of SOEs, shareholders' meeting, board of directors and board of supervisors were set up and specialized operation management teams were retained, thus providing a systematic guarantee for long-term, healthy development of enterprises. With the help of the capital market, Chinese SOEs achieved leapfrog development and their profitability, management ability and international competitiveness improved considerably. The above analyses show that the capital market is an extremely important platform for the reform and development of SOEs. Judging from data, by 2017, of 98 central enterprises, 83.7% of them had listed-company platforms and most of central enterprises had more than one listed company. In terms of assets, the total assets of central enterprises were RMB54.5 trillion and 65% of that amount was already injected into listed companies. About 40% of the assets of provincial SOEs were injected into listed companies, and the figure exceeded 50% in such cities as Shanghai, Chongqing and Anhui. The above mentioned central enterprises refer to industrial central enterprises under supervision and administration of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC). If we further consider the development and strengthening of financial central enterprises including top 4 banks through corporate governance under listing rules, the capital market has played an irreplaceably important role in China’s SOE reform.

The financial system contributed to the development of China’s real estate market from scratch. Since the reform of housing commercialization in 1998, the financial system has helped China in developing the world’s largest real estate market within merely twenty years[16], and the real estate market has thus become China’s largest wealth carrier with total market value of RMB280 trillion. At the end of 2017, the balance of individual housing loans of Chinese residents was RMB21.86 trillion and the balance of real estate development loans was RMB8.32 trillion. The combined amount of the foregoing two items exceeded RMB30 trillion, which represented nearly 25% of the balance of RMB loans within the same period. It is especially noted that the policy of renovating shanty towns aimed at resolving the problems of dilapidated houses in urban areas and improving the housing conditions of poor households was implemented nationwide on a large scale thanks to policy-based finance. Since the policy was launched in 2009, China has completed the reconstruction of more than 30 million housing units and thus greatly improved the housing conditions of urban low- and middle-income families. Although the disputes over whether the financial policy has pushed up the housing prices have never stopped, there is no doubt that the financial system has played an irreplaceable role in developing China’s real estate market and solving the housing problems of Chinese residents in the past two decades. China, a country whose urban population exceeds the total population of Europe, has topped the list of major economies in the world by the proportion of home ownership and

[16] According to the latest data from Zillow, the global largest real estate data platform, the total value of the US real estate market was US$31.8 trillion by the end of 2017. Based on our estimation of the real estate sector, the total value of the Chinese real estate market is ~RMB280 trillion.

overtaken major developed economies like the UK, Japan and Germany by per capita living space.

The great improvement in China's infrastructure in the past forty years is also largely attributed to the financial system. Over the past four decades, China has overtaken the world's major economies quickly in terms of infrastructure construction. According to data from the National Bureau of Statistics of China, China's railway operating mileage was only 51,700km and average railway speed was less than 40km/h at the beginning of the Reform and Opening-up. By the end of 2017, forty years after the Reform and Opening-up, China's total railway operating mileage reached 127,000km. Among others, China's high-speed railway operating mileage reached 25,200km, which accounted for 66.3% of the world's total and made China the world's largest country by this measure. China also ranked first in the world with its proportion of electrified railway reaching 68.2%. At the start of the Reform and Opening-up, China's highways were short and of poor quality and its total highway mileage was merely 890,200km. By the end of 2017, China's total highway mileage reached 4,773,500km. Among others, China ranked first in the world with its total expressway of 136,400km. In 2017, seven of the world's top 10 ports by cargo throughput and container throughput were Chinese ones. Improved infrastructure not only boosted the scale effect and operating efficiency of the Chinese economy on the whole, but also represented an important component of the country's economic growth. In particular, infrastructure will play a prominent role in stabilizing investment and economic growth during economic downturn. For funding sources of China's infrastructure investment, a fraction of[17] those funds come from budgetary funds, and the vast majority of such funds are raised from the financial market, including loans from policy banks and commercial banks, local government special bonds and quasi-municipal bonds. It is especially noted that China Development Bank worked with Wuhu City of Anhui Province in 1998 and adopted the "project legal person bundling" model on urban infrastructure loans in China for the first time. **This created a precedent for bank funds supporting local infrastructure construction and cracked the problem of difficulty in financing for urban infrastructure construction**[18]. After that, this model was popularized across the country and boosted China's urbanization.

[17] According to Wind's data calculation and estimation, less than 20% of infrastructure investment funds come from financial budget funds and the vast majority of infrastructure investment funds are raised from the capital market.

[18.] The particulars of the Wuhu model are as follows: Firstly, subject to China Development Bank's suggestion, the Wuhu municipal government set up an enterprise with the name of "Wuhu Construction Investment Co., Ltd." ("Wuhu Construction Investment") and used that enterprise as the borrowing entity. Secondly, the Wuhu municipal government injected a large number of quality assets like land reserves and expressways into Wuhu Construction Investment. Wuhu Construction Investment borrowed loans from China Development Bank with the foregoing

The transformation & upgrade and innovation and entrepreneurship in the Chinese economy are also backed up by the financial market. Over recent years, the Chinese economy has gradually transitioned from a high-speed growth stage to a high-quality development stage and shifted from the factor-driven, investment-pulling growth pattern to the innovation-driven development pattern. The transition from old driving forces to new driving forces has accelerated. According to data from the National Bureau of Statistics of China, the proportion of the new economy in China's GDP reached 16% in 2016 and the proportion of the new economy exceeded 30% in cities like Beijing, Shenzhen and Shanghai. An important factor behind accelerated growth of the new economy and new driving forces is the rapid development of the financial force including private equity and venture capital funds, which is catalyzing and fostering a large number of innovative start-ups. Those enterprises no longer depend on bank credit and are less sensitive to traditional economic cycles. This is the very direction and force of China's economic transformation and upgrade. Data shows that 62.5% of 522 enterprises listed on the A-share market since 2017 are backed up by venture capital funds, and that 100% of 98 existing unicorn enterprises in China are supported by venture capital funds.

3. Achievement 3: The Chinese financial sector has become pretty comprehensive in the scope of products and services

Since the Reform and Opening-up, China's financial system has gradually improved and basically taken shape with the development of the real economy. Compared with major developed economies, China made a late start but developed fast in terms of the construction of its financial market. Within merely forty years, China has fostered and developed a basically matured financial system with full varieties of financial products. To understand China's basically matured financial system, we must look back on the development of its financial system in the past four decades. Before 1980, under a highly centralized planned economic system, China's economic activities were marked by fiscal dominance and the country had no financial market in a strict sense, let alone a financial system. In early 1980s, top 4 banks successively spun off

assets as collateral, and the local government just "stood aside" and was not required to provide any guarantee for this process. Thirdly, Wuhu Construction Investment bundled projects with poor financial quality (no loans may be secured through normal approaches) with projects with good financial quality to apply for loans and repay loan principal and interest together so that projects with good cash flows (e.g. expressways) could make up for projects with poor cash flows (e.g., garbage treatment). This model was known as the "project legal person bundling" model. Lastly, China Development Bank further made "land sale revenue" into collateral. In 2002, the Wuhu municipal government authorized Wuhu Construction Investment to apply for RMB1,095 million of loans from China Development Bank "with the pledge of proceeds from land transfer as a major repayment guarantee". With the bank issuing loans first, the government received and invested loan funds in infrastructure construction before selling land and repaying the loans.

from the central bank, which signaled the establishment of a two-tier banking system with the central bank and commercial banks undertaking different functions. In 1988, non-banking financial businesses like trust, securities and insurance developed initially and the People's Bank of China (PBOC) began to implement its supervision function. In 1990, Shanghai and Shenzhen stock exchanges were set up and the central bank officially announced that securities companies were financial institutions specialized in securities business, which showed the beginning of separate operation. China Securities Regulatory Commission (CSRC) and China Insurance Regulatory Commission (CIRC) were set up in 1992 and 1998 respectively. In 1993, separate management as a principle was written in the relevant document of the State Council. In 2003, the founding of China Banking Regulatory Commission (CBRC) signaled the construction of the Chinese financial system marked by separate operation and separate regulation. With an increasingly remarkable trend of mixed operation over recent years, China Banking Regulatory Commission (CBRC) and China Insurance Regulatory Commission (CIRC) were merged into China Banking and Insurance Regulatory Commission (CBIRC) in 2018.

To understand China's financial system, we can proceed from various dimensions like institution, supervision, trading, investment and financing. We attempt to briefly review China's financial system from the perspective of institutions. **In terms of major categories, the Chinese financial system covers major fields including banking, trust, securities, public equity, insurance, futures, asset management and private equity**[19]. From the perspective of supervision, banking, trust and insurance are subject to supervision of CBIRC, while securities, public fund, futures and private equity are subject to supervision of CSRC. Depending on product categories, the bulk of the asset management industry is subject to supervision of CBIRC and a small fraction of that industry is subject to supervision of CSRC. In addition to the foregoing institutions, stable operation of the Chinese financial system depends on a series of financial infrastructures, such as venues of stock/equity trading including Shanghai Stock Exchange, Shenzhen Stock Exchange and National Equities Exchange and Quotations and equity exchange centers in different provinces, venues of futures goods trading including Shanghai Futures Exchange, Dalian Commodity Exchange, Zhengzhou Commodity Exchange and China Financial Futures Exchange. Transactions in bond market are carried out in interbank markets and exchange markets respectively, and

[19] Of course, the financial system also include financial institutions like rental, microcredit, finance companies and P2P, but those types of financial institutions have smaller size and less strong influence than the types of institutions listed in the body text. Therefore, they are not enumerated here.

registration and clearing institution of financial products of various types include China Central Depository & Clearing Co., Ltd., China Securities Depository & Clearing Co., Ltd. and Shanghai Clearing House, and payment institutions include China UnionPay. All of the foregoing institutions constitute a basically matured Chinese financial system covering a wide range of fields. Among all financial institutions, the banking system enjoys the largest size of assets. By the end of 2017, the total size of home and foreign currency assets in all banking financial institutions in China was RMB252 trillion, which represented more than 70% of the total asset size of the financial industry as a whole. Judging from other components of the financial sector, the asset size of the trust industry, securities industry, insurance industry, public equity industry and private equity industry in 2017 was RMB26 trillion, ~RMB6 trillion, nearly RMB17 trillion, RMB11.6 trillion and RMB11.1 trillion respectively.

Table 1 Comparison among major components of China's financial system by asset size (Unit: RMB trillion)

Asset in trillion RMB	Banking	Trust	Securities	Insurance	public equity	private equity
2012	133.62	7.47	1.72	7.35	3.62	-
2013	151.35	10.91	2.08	8.3	4.22	-
2014	172.34	13.98	4.09	10.2	6.68	2.63
2015	199.35	16.3	6.42	12.4	8.4	5.07
2016	232.25	20.22	5.79	15.12	9.16	10.24
2017	252	26.25	6.14	16.75	11.6	11.1

Source: China Banking and Insurance Regulatory Commission, China Trustee Association, Securities Association of China, Insurance Association of China, Asset Management Association of China

Review and summary of the development of the Chinese financial system in the past four decades, the following two points deserve our attention. **Firstly, the basically matured financial system is gradually developed** on the basis of the Chinese government carefully and prudently guiding and utilizing market forces, and **spontaneous market forces and governmental guidance are indispensable to the development of the financial system.** Take the development of stock market as an example. In middle and late 1980s, the so-called "old eight stocks" appeared and neither Shanghai Stock Exchange nor Shenzhen Stock Exchange was set up at that time. This was a natural outcome of market forces when the Chinese economy developed at that stage. In response to this historical trend and with reference to the experience on the development of overseas stock markets, the Chinese government set up Shanghai and Shenzhen stock exchanges in 1990. After that, China established the Securities Commission of the State Council and China Securities Regulatory Commission, which gradually standardized the buying and selling of stocks.

Secondly, the structure of the Chinese financial system differs from that of developed economies. In terms of the completeness of fields covered by financial system, China has generally caught up with major economies like the US, the UK, Germany and Japan. For any type of financial institutions existing in developed countries, China also has such type of financial institutions; China even have some types of financial institutions that do not exist in some developed countries. However, the structure of the Chinese financial system differs much from the structure of the financial system of developed economies. The Chinese financial system differs from American and British financial systems dominated by direct financing, and it is not fully identical to the German and Japanese financial systems dominated by the banking system. On the one hand, compared with the US and the UK, the proportion of direct financing in China is still much lower. The proportion of direct financing is around 60% in the US and the UK, and the proportion of direct financing is only 40% in China in 2016[20]. Structurally speaking, China does not lag far behind the US and the UK in terms of the proportion of stock market, but the proportion of bond market in China is obviously too low; the proportion of treasury bonds and corporate bonds is rather low in the Chinese bond market; the bond market is highly segmented and the channel between interbank market and exchange market is not yet built. On the other hand, similar to the situation in Germany and Japan, the banking system is the most important funding source for the real economy in China. Nevertheless, China obviously beats Germany and Japan by such measures as activity of multi-level equity market and the size and growth of private equity and venture capital funds, and it clearly outperforms Germany and Japan and is second only to the US in terms of the growth and size of innovative start-ups. According to the latest statistics of CB Insights, a global leading venture capital research firm, China is second only to the US by number of unicorn companies, which accounts for 25% of the world’s total, and far exceeds major developed economies like Japan, Germany and France.

[20] The calculation of direct financing may adopt the inventory method and the incremental method. The incremental method is largely subject to fluctuations in annual financings, so the data in this Article is estimated according to the inventory method.

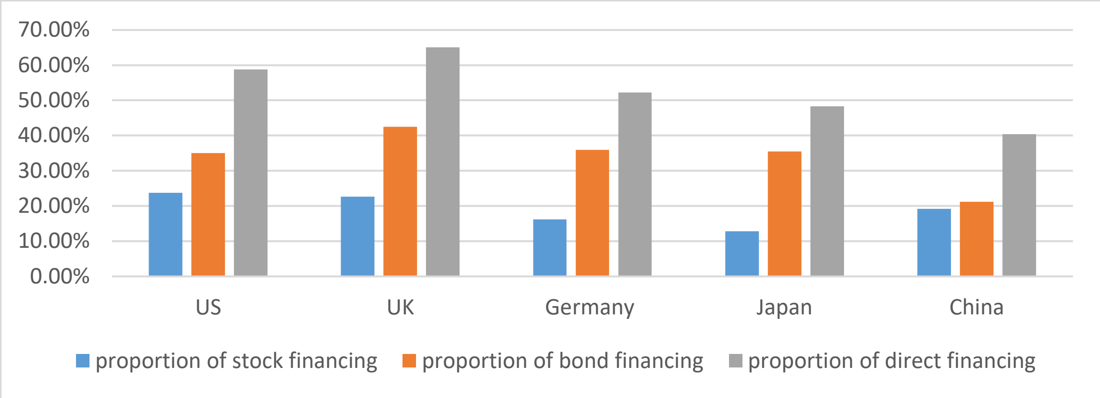


Chart 15 Comparison among China and major developed economies by proportion of direct financing[21] (2012-2016 average)

Source: Bank for International Settlements, World Bank, People's Bank of China

4. Problem 1: The Chinese financial system has not been able to provide stable and high returns to financial investors as in mature market economies

The Chinese stock market has notoriously low returns and high volatility. Shanghai Composite Index was 127.61 at the end of December 1990 and increased to 2630.52 by the end of October 2018, which indicated a growth of nearly 20 times; Shenzhen Component Index was 880.98 at the end of April 1991 and increased to 7482.83 by the end of October 2018, which indicated to a growth of 7.5 times. On the whole, suppose we buy composite A-shares worth RMB100 according to the tradable market value weighted price at the end of December 1990 and keep holding those shares until the end of October 2018 (for dividends obtained during such period, we continue to buy composite A-shares with them according to tradable market value weighted price), we will be able to get RMB1,880 after about 28 years, which shows a growth of less than 18 times. In contrast, the average monthly salary of employees in Shanghai was RMB243 in 1990 and the figure rose to ~RMB6,500 in 2018, which shows a growth of nearly 26 times. China's nominal GDP was RMB1.87 trillion in 1990 and rose to RMB82.7 trillion in 2017, which shows a growth of more than 43 times. **We may safely claim that stock price growth did not match that of labor income or GDP.**

[21] According to the calculation method in mainstream literature, the proportion of direct financing is defined as (market capitalization of stock market + market capitalization of bond market)/(market capitalization of stock market + market capitalization of bond market + balance of bank credit). Based on this definition, the proportion of direct financing = proportion of stock market + proportion of bond market. Considering large fluctuations in annual data, the mean value of five years' (2012-2016) data is adopted here. Of course, direct financing in this diagram does not include the statistics of the New Third Board, regional equity markets and private equity markets. If the financings of those markets are included in direct financing, China will further surpass Germany and Japan in terms of equity market advantages.

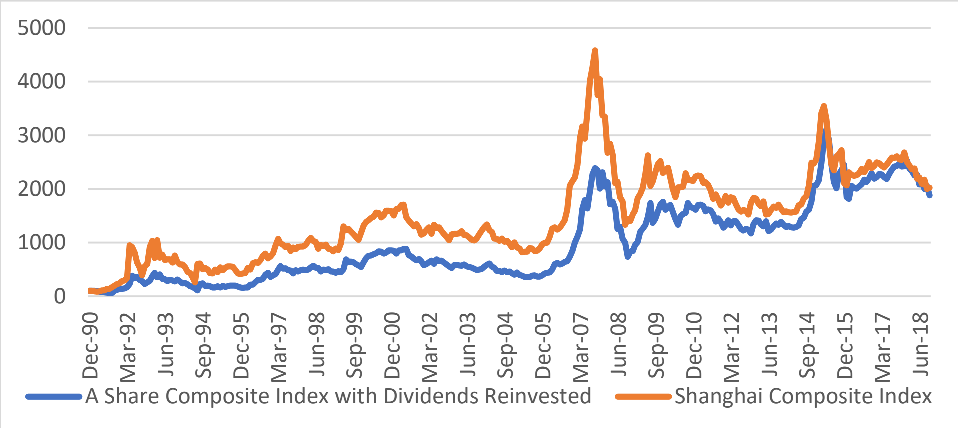


Chart 17 Change in composite A-share index including dividend reinvestment (tradable market value weighted) (index at the end of 1990 = 100)

Source: CSMAR Database, ACCEPT calculations.

Specifically, the Chinese stock market was performing rather well in the early stage, for example, the first 10 years (1991-2000). Based on Shanghai Composite Index, during 1991-2000, the stock price increased dramatically, **with an average annualized holding return exceeding 32%.** Shanghai and Shenzhen combined A-share market with dividends reinvested delivered 24% annualized return, which is quite considerable compared to other economies.

But in the next 18 years (2001-2018), China's stock market provided only limited returns to its investors, barely beating the inflation rate. This makes China's stock market one of the worst performing markets across the globe. Annualized return was only 1.3%. Even with dividends reinvestment considered, the return would barely beat inflation.

Table 2 Stock Index Returns (1991-2000)

1991-2000	start	end	# years	Average Annualized Holding Return
China	100	1624.9	10	**32.20%**
US	100	363.9	10	**13.80%**
UK	100	290.3	10	**11.20%**
Japan	100	57.8	10	**-5.30%**
Korea	100	460.1	10	**16.50%**
India	100	378.9	10	**14.20%**
Germany	100	460.1	10	**16.50%**
Singapore	100	203.4	10	**7.40%**
Taiwan	100	104.6	10	**0.50%**
HK	100	499.1	10	**17.40%**

Source: CEIC database (China Shanghai Stock Exchange Composite Index, US New York Stock Exchange Composite Index, UK FTSE 100, Japan Nikkei 225, Korea KOSPI Index, India BSE Sensex, Germany DAX, Singapore Straits Times Index, Taiwan Stock Exchange Market Capital Weighted Index, HK Hang Seng Composite Index)

Table 3 Stock Index Returns (2001-2018)

2001-Oct 2018	start	end	# years	Average Annualized Holding Return
China	100	125.5	17.8	**1.3%**
US	100	175.8	17.8	**3.2%**
UK	100	114.6	17.8	**0.8%**
Japan	100	159.0	17.8	**2.6%**
Korea	100	177.9	17.8	**3.3%**
India	100	867.1	17.8	**12.9%**
Germany	100	177.9	17.8	**3.3%**
Singapore	100	156.7	17.8	**2.5%**
Taiwan	100	206.8	17.8	**4.2%**
HK	100	165.5	17.8	**2.9%**

Source: CEIC database (China Shanghai Stock Exchange Composite Index, US New York Stock Exchange Composite Index, UK FTSE 100, Japan Nikkei 225, Korea KOSPI Index, India BSE Sensex, Germany DAX, Singapore Straits Times Index, Taiwan Stock Exchange Market Capital Weighted Index, HK Hang Seng Composite Index)

What's more, we calculate China's Sharpe Ratio [22], a measure of "cost effectiveness" of stock returns-risks, and compared it with the corresponding figures of the US and India. Before 2009, the Sharpe Ratio of China's Shanghai and Shenzhen combined A-share composite market was quite considerable. **But during 2010-2018, the Sharpe Ratio dropped to literally zero, significantly lower than that of the US and India.**

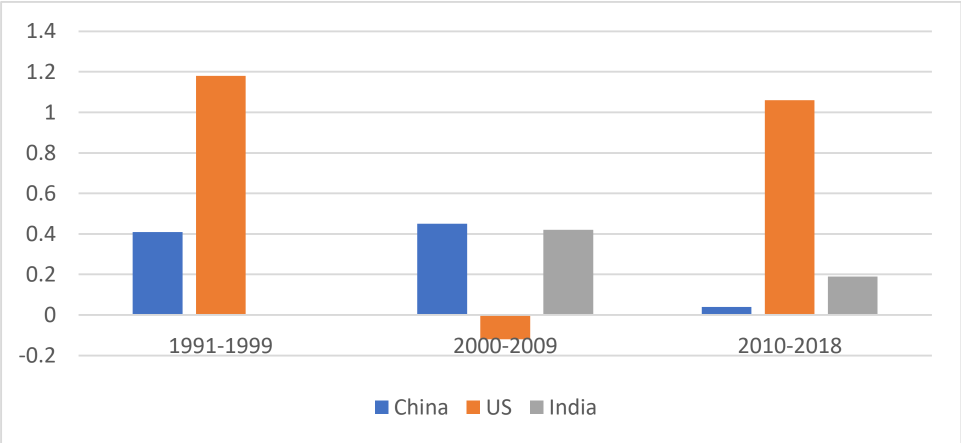


Chart 18 Sharpe Ratio among different countries

Source: CSMAR Database, ACCEPT calculations.

[22] Note: Sharpe Ratio is defined as the difference between mean annualized returns and mean risk-free interest rate divided by the fluctuation ratio of annualized return. China uses composite A-share index (tradable market value weighted, data starting from 1991) and adopts 1-year bank deposit rate as risk-free interest rate; the US uses S&P 500 (data starting from 1991) and adopts 1-year treasury yield as risk-free interest rate; India uses Nifty500 (data starting from 1999) and 1-year treasury yield as risk-free interest rate. Dividends are considered but tax factor is excluded. The calculations here use monthly data as the basis, and mean annualized returns are equal to mean monthly returns multiplied by 12 and annualized fluctuation is equal to standard deviation of monthly returns multiplied by $\sqrt{12}$.

How about the returns of fixed income financial products, for example, bank deposits or treasury bills/bonds? Based on our estimation, if we deposited RMB100 as a 1-year fixed term deposit at the end of 1990 and re-deposited both the principal and the interests earned annually afterwards until the end of October 2018, we would get RMB310.4, which indicates an average annualized return of 4.2%. In terms of time variation, the interest rate was relatively high in 1990-1998 (5%~11%), then fell to 3% and further dropped to 1.5% after 2016. We take 1-year deposit rate as risk-free interest rate, and compared China with the US and India. The American risk-free interest rate (represented by 1-year treasury yield) was ~5% in 1990s, then fell to 1% and rebounded to 5% in 2006 and 2007. The United States implemented the low interest rate policy (almost zero) as from 2008 and the interest rate gradually rose to 2%~3% in recent years. For India, the risk-free interest rate was 8%~12% in 1990s and has hovered around 7% since 2000. **Low savings interest rates in China reflect the government's deliberately designed "mild financial repression", i.e., the government's active intervention in bringing down the deposit rates to reduce financing costs of enterprises and governments and support governmental infrastructure construction and corporate investment and expansion. However, the precondition for the delicate equilibrium is that the financial system keeps safe and stable.** If the financial system is unstable with frequent crises, people will demand higher returns or even become reluctant to hold financial assets including stocks and deposits and try all means to move their money overseas to other countries, e.g. the U.S.

Additionally, lawful rights and interests of minority shareholders of listed companies cannot be guaranteed and the intensity of sanction against illegal acts is insufficient. There are the following main reasons:

First, the mechanism of minority shareholders' participating in corporate governance is imperfect. The board of directors and board of supervisors are generally regarded as "white elephants" and tend to serve the interests of the management and majority shareholders. Minority shareholders have no right of speech. In order to protect the rights and interests of minority shareholders and other stakeholders, China began to introduce the independent director system in 2003, but independent directors seldom oppose the management's proposals. According to the findings by Jiang, Wan & Zhao (2016), less than 6% of independent directors voice their objections. Another related matter is that corporate information disclosure mechanism is not sound. Many listed companies tend not to disclose their information in a timely, complete and transparent manner, and this is likely to trigger off tunneling behaviors of controlling shareholders and thus impair the interests of medium and small investors. If a particular company conducts complete information disclosure, especially information disclosure involving majority shareholder's tunneling, , then the medium and small investors may take measures to intervene in or object to any act of the controlling shareholder that may impair their interests. .

Second, the punishment of violations of corporate governance and securities regulations is not serious enough. On the one hand, our punishment on irregularities of majority shareholder and the management is not sufficient. The acts of majority shareholders and management teams abusing their power to seek personal gains and carrying out benefit transfer are nothing new, and such acts include, without limitation, creating price differences during private placement, transferring resources to affiliated enterprises, occupying or misappropriating funds and hiding important information, but the punishments are far from enough. For example, CSRC imposed the strictest punishment on Changsheng Bio-Technology's failure to make required information disclosure or its misleading disclosure or false information disclosure recently, and the details of such punishment were imposing a fine of RMB600,000 on that company, giving a warning to the personnel directly responsible for the issue, imposing a fine of RMB 300,000, and meanwhile taking a measure of lifetime ban from securities market. Such punishment is far from enough. On the other hand, our punishment on irregularities of some investors is not strict enough. For instance, with respect to the punishment against insider trading, China now metes out the following administrative penalties against insider trading: "for securities insider trading, if the amount of illegal gains is at least RMB30,000, the amount of the fine shall be at least 1 time but at most 5 times the amount of the illegal gains; if no illegal gains are achieved or the amount of illegal gains is less than RMB30,000, the amount of the fine shall be at least RMB30,000 but at most RMB600,000. For futures insider trading, If the amount of illegal gains is at least RMB100,000, the amount of the fine shall be at least 1 time but at most 5 times the amount of illegal gains; if no illegal gains are achieved or the amount of illegal gains is less than RMB100,000, the amount of the fine shall be at least RMB100,000 but at most RMB500,000. If a unit is involved in insider trading, the person in charge directly responsible for the case and other persons with direct responsibility shall pay a fine in the amount of at least RMB30,000 but at most RMB300,000", and administrative supervision measures including ban from securities market may be also taken; the rules on criminal punishment are as follows: "if a person commits a insider trading crime, he/she will be sentenced to fixed-term imprisonment of not more than five years or penal servitude, alternatively or also pay illegal gains that are 1-5 times the amount of the fine. If a unit commits a crime, the unit shall pay a fine and the person in charge directly responsible for the case and other persons with direct responsibility shall pay fixed-term imprisonment of not more than 5 years or be sentenced to penal servitude. If the crime is especially serious, the person shall be sentenced to fixed-term imprisonment of at least 5 years and at most 10 years and pay a fine in the amount of 1-5 times that of illegal gains". In contrast, the highest punishment in the US against an individual guilty of insider trading is fixed-term imprisonment of 20 years and a fine in the maximum amount of US$5 million (or US$25 million for the relevant unit).

5. Problem 2: The Chinese financial system has not been able to effectively force the exit of efficient firms

An important symbol to measure whether the financial system of a country is mature and efficient is the ability to effectively support the entry of new enterprises & good enterprises and timely obsolete inefficient firms. Within forty years' development, the Chinese financial system has accumulated much experience in supporting the entry of new and good enterprises but failed to do a good job in timely obsoleting inefficient firms. Dynamic change including entry and exit of new and old firms is an important manifestation of the operating efficiency of an economy, and this is similar to metabolism in human body. If inefficient enterprises are not eliminated out of the economic system in time, large quantities of element resources like capital, land and labor will be occupied and price signal will be also distorted, thus affecting the operating efficiency and quality of the entire economic system. An important background for the implementation of the supply-side structural reform starting from 2016 is the limited capability of the economy system including the financial system to eliminate inefficient enterprises.

According to SASAC's statistics, central enterprises needed to conduct special disposal and treatment on a total of 2041 "zombie enterprise" and extremely difficult enterprises in 2016, which involved assets worth RMB3 trillion in total. Through summarization of estimations of different research teams, zombie enterprises represents 5%-10% of industrial enterprises above designated size in China. Since the total assets of industrial enterprises above designated size in 2017 were RMB112.3 trillion, even if calculated according to 5%, there are assets worth nearly RMB6 trillion that need to be disposed of. Compared with such a huge amount requiring disposal, the pace of the Chinese financial system in disposing of non-performing assets is obviously not satisfactory. According to the exiting size of inefficient enterprise assets estimated by Tsinghua University CCWE on the basis of listed banks' data on write-offs of non-performing loans (NPLs), ~RMB1.2 trillion of inefficient, ineffective assets were eliminated from the Chinese economy in 2017. Even if new inefficient assets are not considered, it takes 5 years for China to eliminate RMB6 trillion of existing inefficient, ineffective assets at the foregoing rate. If we calculate according to current average loan term of about three years, RMB6 trillion of assets not disposed of will each year occupy nearly RMB2 trillion loans, which means approximately 15% of bank loan resources. On the one hand, slow exit of inefficient enterprises exacerbates the problem of costly and difficult financing. Low-quality enterprises being given priority in use of financial institutions' credit resources may help banks cover up their problems and reduce their bad loan ratios on book. But new and good enterprises will have greater difficulty in securing loans, thus pushing up their financing costs. On the other hand, inefficient enterprises usually have poor technologies and low product quality. They are more willing to carry out price war and rely on low prices to survive. This will drag down the performance of good enterprises and disturb market order. More seriously, slow exit of inefficient enterprises will also lead to the occupation of production factors like land and labor and reduced productivity of the economy. The ability of capital market to eliminate inefficient enterprises is also inadequate, and the problem of difficult delisting of Chinese listed companies is also prominent. In 2001-2017, a total of 60 listed companies were delisted from the Chinese A-share market for such reasons as loss, fraudulent issuance or privatization and the accumulative delisting rate was merely 1.83%. On average, there are about 150 IPOs in the American stock market each year, and about 400 companies are eliminated from the stock market each year due to such factors as merger, bankruptcy and delisting. As a result, 200-300 listed companies are delisted each year on average.

II. History Overview

1. A Brief History: the Banking System

（1） 1978: The People's Bank of China regained independence from the Ministry of Finance

Before the Reform and Opening-up, the New China did not establish a market-oriented, modern financial system. In terms of organizational form, the most extreme manifestation was merging previous several major commercial banks into the central bank or the Ministry of Finance. Later on, with continued strengthening of planned economy, the central bank itself was merged into the Ministry of Finance, thus achieving the "mixing" of finance and banking. In 1969, People's Bank of China (PBOC) was co-located with the Ministry of Finance[23] and retained only nominally.

On November 28, 1977, the State Council issued the document entitled *Requirements on Rectifying and Strengthening Banking Work*, which stated that the

[23] Qilu Weekly: Central Bank Turned over Its Duty. http://www.sohu.com/a/226397600_351293

PBOC as a ministry/commission-level institution under the State Council should be separated from the Ministry of Finance. In March 1978, the First Session of the Fifth National People's Congress approved the proposal to restore the PBOC as a ministry/commission-level institution and set it up separately from the Ministry of Finance. As a national bank, the PBOC was in charge of national financial policy, currency issue, credit projects and fund distribution. At the forum for the first secretaries of the party committees of Chinese provinces, municipalities directly under the central government and autonomous regions in 1979, Deng Xiaoping clearly pointed out that banks should handle economic affairs while now they were just doing the accounting function and did not play the due role of banks. Banks shall be used as a lever for economic development and technological innovation, and "we must truly operate our banks on a commercial basis". The speech made by Deng Xiaoping pointed out the direction of China's banking system reform[24].

（2） 1980s: the People's Bank of China divested its commercial bank functions

In addition to central banking business, under the "all-in-one" financial system, PBOC also undertook the role of commercial banks. It not only oversaw currency issue and financial management, but also carried out various banking business operations. This unitary, narrow financial model with highly concentrated management system, which used to work well under the conditions of the planned economy system, gradually became unsuitable for change of financial entities and development of financial system and needed reform urgently. In particular, the formation of specialized banks (Bank of China, Agricultural Bank of China and China Construction Bank) changed the monopoly of PBOC preliminaryly and the competitive landscape gradually formed. However, although the then policy expressly required that each specialized bank should operate its main business respectively, those banks were not satisfied with their division of work and the situation turned out that "ABC, BOC and CBB all operated beyond their original business scope". The central bank's act of "playing the dual role as the referee and the athlete" triggered the dissatisfaction of other banks — each specialized bank refused to obey the management of PBOC, asserting that it was also a national bank instead of a specialized bank. They all thought they were on an equal footing with PBOC and did not recognize the leader-follower relationship. And PBOC had no effective measures to regulate and supervise those banks.

[24] Liu Hongru. (2009). *A review of China's financial system reform*. Hundred Year Tide (5), 22-28

In the face of the foregoing situation, the academia and related departments generally formed the following three opinions concerning establishment of a central banking system: firstly, maintain the status quo; secondly, return to the all-in-one people’s bank; thirdly, establish a complete central banking system. China set up a “banking institutional reform group”, which conducted a number of researches at home and abroad. Finally, the third opinion was adopted. With respect to the feedback by PBOC that it could not effectively regulate and supervise specialized banks, Yao Yilin, then vice premier of the State Council, was quoted as saying, “ … if you fear that specialized banks will become tigers, then you’d better try to make yourself a lion.” This reflected the “chaos” of the banking system and the country’s stance on PBOC’s exercise of its functions as central bank at that time.

In May 1982, the State Council approved the following main functions of the PBOC: carrying out the Party’s and national routes, principles and policies on economic work, drawing up the guidelines, policies, regulations and basic systems on financial work, taking charge of financial administration & management and issuance of national currency, and managing industrial & commercial credit and urban savings businesses. In September 1983, the State Council issued the *Decision on the People’s Bank of China to Specially Exercise the Functions of a Central Bank* (the “Decision”). According to the Decision, the PBOC shall specially exercise the functions of a central bank and no longer operate industrial & commercial credit and savings businesses; the PBOC as the bank of issue, bank of the government and banker’s bank shall be a state organ that leads and manages the national financial work and generally takes economic measures to manage various financial institutions (To be specific, the Decision requires that PBOC must control 40%~50% of all credit funds in order to adjust and balance national credit receipts and payments. In other words, The controlling of the total amount of funds becomes the most effective way for PBOC to exercise the functions of a central bank); Industrial and Commercial Bank of China should be set up to take over all industrial & commercial credit business and urban savings business previously operated by the PBOC. This decision liberated the PBOC from specific credit and savings businesses and enabled it to specially exercise the functions of a central bank. The Decision also defined the PBOC as a state organ that leads and manages national financial work, and signaled the formation of the Chinese central banking system. This also represented that China’s central banking system entered into the stage of unitary system.

(3) 1994: the policy banks were split from the commercial banks

The globalization trend triggered off fiercer competition on financial markets, and the overlapping and complexity of policy financial business and operational financial business of specialized banks played an increasingly noticeable role in hindering the deepening of the financial system reform. In 1994, the State Council put forward the reform requirement on “separating policy business and commercial business”. In the same year, China set up three policy banks including China Development Bank, the Export-Import Bank of China and Agricultural Development Bank of China, which were all directly led by the State Council, and the country appropriated RMB73.38 billion for their founding.

Upon their founding, the three policy banks not only took over the policy business of the four major national specialized banks, but also undertook several missions like strengthening macroeconomic regulation, achieving governmental development strategic goals, promoting commercialization reform of national specialized banks, and cutting off the connection between credit and monetary base during the transition period from socialist planned economy to market economy[25].

With a focus on national macro situation and strategic deployment, China Development Bank is focused on medium- to long-term investment and financing projects in China and offers great support for key projects on railway, highway, energy and urban infrastructure. Over recent years, China Development Bank has invested heavily in such fields as housing security of middle and low income families, small and micro businesses, healthcare, environmental protection and “issues of agriculture, farmers and rural areas” and supported national strategies including improving people’s livelihoods and industrial structural upgrade. The Export-Import Bank of China plays an important role in promoting stable and relatively rapid economic growth and foreign trade growth. The Agricultural Bank of China plays a supporting role in rural financial development and has developed a business development pattern of “focusing on supporting international grain and cotton purchase, sale and storage business with equal attention to supporting industrialized operation of agriculture and agricultural and rural infrastructure construction”.

Within more than two decades after their establishment, the three policy banks played an important role in the formation and improvement of the China’s financial system. These three policy banks play a positive role in implementing national strategies, supporting the construction of national infrastructure, pillar industries and

[25] Zheng Jianku. (2017). Comparison between governance models of policy banks in China and other countries. The Chinese Banker (4), 96-99

national key projects, supporting the development of "issues of agriculture, farmers, rural areas" and small & micro businesses, improving people's livelihoods, supporting enterprises "going global", and promoting economic transition and social development. They have become an irreplaceable, important financial force[26] in China's national economic development and a unique financial force that set China apart from other major economies.

(4) Late 1990s: the state-owned banks were stripped of their bad loans with the help of the Ministry of Finance and the People's Bank of China

After Deng Xiaoping's southern tour speech in 1992, China's reform and opening-up was accelerated and China's economy developed rapidly. Loan size of commercial banks continued to expand, and there was plenty of administrative intervention in banks from local governments. The non-performing loan (NPL) ratio of four major State-owned banks was up to 25% in June 1996 and the statutory capital of the banking sector was seriously inadequate. In 1997, when Asian financial crisis broke out, Southeast Asia and Hong Kong, Macau and Taiwan of China were hit. Domestic and overseas economic situations brough about impacts on the banking industry. The central government held the first National Financial Work Conference at the end of this year.

The National Financial Work Conference held under this context focused on such topics as stripping NPL of four major State-owned banks and optimizing PBOC's structure. Provincial branches of PBOC were revoked after the conference in order to better centralize the financial regulation power. In order to solve the NPL problem, the central government set up four asset management companies (AMCs) including Huarong, Great Wall, Orient and Cinda in 1999, which were designed to dispose the non-performing assets of four major banks in a one-to-one correspondence.

At that time, the country granted those four AMCs the following preferential policies: firstly, four major AMCs could take over non-performing assets of four major banks (BOC, ABC, ICBC, CCB) with their original prices, and the losses on disposal of such assets would be compensated by the Ministry of Finance; secondly, the Ministry of Finance provided funding sources for four major AMCs; thirdly, tax and capital policy support, e.g., AMCs would be exempt from taxes incurred by acquisition, disposal and management of non-performing assets.

In light of funding sources, the Ministry of Finance provided RMB10 billion statutory capital for each of those four companies, the central bank granted re-loans of

---

[26] Financial Times: *Where is the road for the transformation of policy banks?* http://bank.hexun.com/2013-12-23/160819764.html

RMB570 billion, and there were financial bonds worth about RMB800 billion. Through such disposal of non-performing assets, a total of RMB1.4 trillion of non-performing assets of banks were stripped off according to book value (principal + on-balance-sheet interest). As a matter of fact, ~RMB1 trillion of NPLs were stripped off from four major State-owned commercial banks. In addition, the stripping also included RMB100 billion from China Development Bank, over RMB100 billion of on-balance-sheet interest and over RMB100 billion of loans on stripping policy for debt for equity swap.

Among these total stripped NPLs, 29% of non-performing assets were disposed of through debt for equity swap. At the end of 1999, the State Economic and Trade Commission recommended 601 debt-for-equity enterprises to the four major AMCs, including 365 enterprises in book losses in the total amount of RMB28.2 billion. The total size of NPLs was RMB459.6 billion, and the size of banks' NPLs on book was RMB383.4 billion or 83% of the total size. In 2000, a total of 580 enterprises concluded the agreements on debt for equity swap with four major AMCs, and the aggregate agreed amount was RMB405.1 billion, which was equal to 29% of RMB1.4 trillion of all NPLs stripped off from four major banks including ICBC, ABC, BOC and CCB and transferred to four major AMCs. The total amount of NPLs transferred to four major AMCs including Huarong, Orient, Cinda and Great Wall was RMB109.5 billion, RMB60.3 billion, RMB175.9 billion and RMB11.7 billion respectively[27].

As China's fifth largest State-owned commercial bank, the Bank of Communications (BOCOM) was also faced the problem of an excessively high proportion of non-performing assets and a seriously insufficient capital adequacy ratio within the same period. Unlike national capital injection into four major banks, BOCOM had no cost-free capital injection but received strong support from its shareholders including the Ministry of Finance. BOCOM sold RMB41.4 billion of doubtful loans according to the market principle and introduced PricewaterhouseCoopers to appraise NPLs during this process, thus making BOCOM the first domestic commercial bank citing the international accounting principles. "Doing the work on its own with the help of market forces" was the characteristic of BOCOM's financial restructure.

The NPL ratio of five major State-owned banks began to decline, while their NPL ratios remained still at a relatively high level by 2004. By the end of 2003, the NPL ratio of ICBC (Industrial and Commercial Bank of China), ABC (Agricultural Bank of

27 Zhuang Ran. (2017). A Research on Chinese Commercial Banks Resolving Non-Performing Assets through the Approach of Debt-for-Equity Swap. A doctoral dissertation from the University of International Business and Economics.

China), BOC (Bank of China) and CCB (China Construction Bank) was 22%, 30%, 18% and 12% respectively. Therefore, China carried out a second stripping of NPLs in 2004. Therefore, CCB stripped off and transferred RMB185.8 billion of NPLs to Cinda, and BOC stripped off and transferred RMB253.9 billion of NPLs to Cinda and Orient. In the same year, China injected US$22.5 billion foreign exchange reserve into BOC and CCB each. As a result, BOC's and CCB's NPL ratio fell quickly to 4.62% and 3.8% by the end of 2004, making both banks qualified for listing. These two banks went public within the following two years. At the end of 2004, ICBC's NPL ratio still hovered at 14%. After the State Council approve the ICBC's share reform plan in April 2005, Central Huijin Investment Ltd. (Central Huijin) injected US$15.0 billion into ICBC. As a result, ICBC's NPL ratio dropped to 2.5% at the end of 2005 and the bank went public in both A-share and H-share markets in 2006. At the end of 2007, ABC's NPL ratio was 23.6%. Central Huijin injected US$19.0 billion into ABC in 2008. Therefore, Central Huijin and the Ministry of Finance each held ABC's 50% equity and ABC's NPL ratio dropped to 4.32% by the end of 2008 and 2.91% by the end of 2009. By that time, the NPL ratios of all four major State-owned banks were reduced to a reasonable range.

In context of 1997 Asian financial crisis, the Chinese government's timely disposal of non-performing assets in banks successfully prevented a possible financial crisis. This not only improved the overall credibility of banks, but also reinvigorated banks and enabled them to continually support the real economy and play a key role in maintaining the smooth operation of the macro-economy. The reform to set up four major asset management companies and strip off and dispose of massive non-performing assets of State-owned banks was successful in the following four aspects: firstly, eliminating historical burden steadily; secondly, strengthening market restraint on State-owned banks; thirdly, safeguarding and boosting a domestic and oversea scope's confidence on Chinese State-owned banks; fourthly, activating the financial system[28].

Over recent years, China has remained highly prudent about the supervision over the banking system. China Banking Regulatory Commission (CBRC) issued a document in 2010, requiring banks to make provisions according to provision coverage of 150%. China maintained this provision coverage until February 2018, when the provision coverage ratio was adjusted from 150% to 120%-150%. In contrast, the international high requirement on NPL provision rate is generally 100%. During an interview with Liu Mingkang, a former CBRC chairman, he explained this

[28] Li Yiqi: A Talk on Non-Performing Loans at That Time. Mongoose Report

phenomenon by mentioning certain deviations between financial statements released by banks and their actual financial conditions at that time. At that time, CBRC commissioned four major accounting firms to examine the NPLs of the four major State-owned banks according to the "five-class loan classification" standards. As a result, the degree of deviation was found to be 20%, i.e., actual value is 120% of the reported value. CBRC organized forces to conduct field investigation and audited and detected a further 20% deviation on the basis of the audited version of four major accounting firms. Therefore, considering $1.2 \times 1.2 = 1.44$ plus unknown macro-economic risks, the provision coverage ratio was determined at 150%. This initiative objectively reserved space for the development of banks. By the end of 2017, the provision coverage ratio was around 181%.

So far, four major banks China (i.e., BOC, ABC, ICBC, CCB) has become global systematically important financial institutions, and the Chinese banking industry enjoys the world-leading low non-performing assets ratio and high capital adequacy ratio and profitability.

（5） 2005-2010: the state-owned commercial banks undertook IPOs and listed in the stock market with injection of funds by the central bank

In 2003, China decided to initiate the shareholding reform of large commercial banks and creatively adopted the financial restructuring "four-step" plan involving use of national foreign exchange reserve to inject capital into large commercial banks, which included write-off of capital actually lost, stripping and disposal of non-performing assets, foreign exchange reserve injection, and domestic & overseas share issue and listing, to comprehensively carry out the institutional mechanism reform of large commercial banks[29].

From 2005 on, four major banks began their listing efforts. CCB went public in H-share market and A-share market in 2005 and 2007 respectively. Both ICBC and BOC were listed in A-share and H-share markets in 2006, while ABC was listed in A-share and H-share markets in 2010. Through listing, China gradually established a modern commercial banking system in which commercial banks could better utilize market resources. Commercial banks, which used to rely heavily on fiscal appropriation, could conduct independent financing after listing.

Like four major banks, BOCOM was encumbered with heavy burden of NPLs. China paid great attention to BOCOM's restructuring. However, unlike four major

[29] Zhou Xiaochuan. (2012). Retrospect and Prospect of the Reform of Large Commercial Banks. West China Finance (5), 4-7.

banks, the main support offered by the country to BOCOM was not direct capital support but policy support. “Doing the work on its own with the help of market forces” was the characteristic of BOCOM’s financial restructure. In 1999, BOCOM submitted a *Request for Initial Public Offering and Listing* to the PBOC. In August 2003, BOCOM submitted the *General Plan on Deepening the Shareholding Reform* to the State Council. BOCOM successfully issued its H-shares in 2005 and going public in A-share market in 2007.

Since 1970s, numerous urban credit cooperatives and rural credit cooperatives have been set up in China. Those institutions were established in order to fill the market gap left by traditional large banks and cover a huge number of medium, small and micro businesses and farmers in urban and rural areas. The formation of urban and rural credit cooperatives in different regions effectively activated social idle funds and supported the development of local medium-sized, small and micro enterprises and farmers. In July 1995, the State Council issued the *Notice on Establishing Urban Cooperative Banks* and different cities in China started to set up urban cooperative banks. In March 1998, urban cooperative banks were uniformly renamed city commercial banks.

（6） 2010-2018: interest rates (deposit and lending) were gradually liberalized and deposit insurance was introduced

Along the years, the interest rates were gradually liberalized. In 1996 and 1997, the interbank funds rate and bond repurchase rate were successively liberalized. In 2004, the upper limit of RMB saving and lending rates for financial institutions were lifted. Moreover, in 2013, the lending rate was fully liberalized. In 2015, the saving rate became fully liberalized. Also in 2015, a key milestone was reached when the deposit insurance system was official introduced, after 22 years of efforts. The system would cover 99.7% of all depositors.

The government has also been working hard to further improvement of a multi-tiered banking system in China.

China now has 12 national joint-stock commercial banks [30]. Shenzhen Development Bank (now known as Ping An Bank after its merger with Ping An Bank), which was set up on December 22, 1987, was the first listed joint-stock commercial bank in China. Since then, the vast majority of joint-stock commercial banks have gone public in succession. Postal Savings Bank of China, a State-owned commercial bank established on the basis of the reformed postal savings management system, received

[30] The 12 national joint-stock commercial banks are: China Merchants Bank, China CITIC Bank, China Minsheng Bank, Industrial Bank, Huaxia Bank, China Everbright Bank, Ping An Bank, Shanghai Pudong Development Bank, China Guangfa Bank, China Zheshang Bank, China Bohai Bank, and Hengfeng Bank.

an approval for its US$8.0 billion Hong Kong IPO plan on August 27, 2016 and was listed on HKEx Main Board on September 28 in the same year.

Over recent years, Chinese urban commercial banks and rural commercial banks have been growing in size and relevant supervision measures have been gradually strengthened. China has further defined the positioning of small and medium-sized banks by requiring them to focus on improving the function of providing financial services for small town construction and taking restrictive measures against cross-regional operation. China now has approximately 1,200 rural and urban commercial banks.

Since 2016, China has approved business operations of private banks on a batch-by-batch basis. Up to now, the number of private banks established or under construction with CBRC's approval has reached 17. Many of those private banks have already stepped into their profit stage.

Amid the wave of Internet, China conducted pilot projects on the construction of private Internet banks. In 2014, Tencent led the market by setting up WeBank. In 2015, MYBank was set up with Ant Financial as the majority shareholder, and its target customer groups included small and micro businesses, individual consumers and rural users. Later on, XWBank was co-founded by New Hope, Xiaomi and Hongqi Chain to provide customized financial services for small and micro businesses.

After many years of development, China has gradually formed a multi-tiered banking system which comprises 5 major State-owned banks, 3 major policy banks, 12 joint-stock commercial banks, 1 postal savings bank, hundreds of urban commercial banks, rural commercial banks, credit cooperatives and village banks and a number of private Internet banks that set up with the rise of Internet economy. This is the comprehensive banking system that covering various fields in China.

2. Development course of capital market

（1） 1981-1990: the bond market was established[31]

After the founding of the New China, in order to restore the national economy ravaged by war, the Ministry of Finance used to issue a series of treasury bonds. Later on, due to political reasons and an incorrect understanding of treasury bonds, the issuance of treasury bonds was stopped. After the Reform and Opening-up, the country delegated power to enterprises and the central government delegated power to local

[31] Li Yang, Wang Guogang, *Research on the 30 Years of China's Financial Reform and Opening-up*[M], Economic Management Publishing House, 2008.

governments. Retained profits of SOEs increased sharply and residents' income level improved considerably. However, this also led to a drop in governmental fiscal revenue growth. Meanwhile, large-scale economic construction contributed to significant increase in the central government's fiscal expenditure. As a result, central budget deficits continued for several consecutive years and China's central budget deficit amounted to RMB27.0 billion in 1981.

To balance fiscal revenue and expenditure, China restarted bond issue in 1981. Due to large impact of the planning mechanism, administrative allocation was adopted at the initial stage of treasury bonds issue and treasury bonds could not be circulated or transferred after issuance. Treasury rates also adopted differential treatment. The interest rate of treasury bonds sold to enterprises and public institutions was 4%, while the interest rate of treasury bonds sold to individuals was 8%. Both treasury rates were below savings deposit rate for the same period. Redemption of treasury bonds adopted the method of drawing lots, and treasury bonds were redeemed in different years and in different lots. In a sense, 1981-1984 treasury bonds issued under the above mentioned mechanism was more a tool intended for fiscal financing with traditional planned economic methods than a type of financial instrument. This showed that treasury bonds issuing market and secondary market could not be established under the conditions at that time. Nevertheless, **resumed issuance of treasury bonds created basic conditions for the growth and development of treasury bond market in the following years.**

In the meantime, with the development of the economy with different types of ownership, China's enterprise bonds were in the bud. In 1984, some enterprises in China began to raise funds spontaneously by issuing different forms of negotiable securities to general public or internal staff. In May 1985, Shenyang Real Estate Development Co., Ltd. issued a 5-year enterprise bond to general public, which was the first recorded enterprise bond issued after the Reform and Opening-up. By the end of 1986, China had issued RMB10.0 billion of negotiable securities similar to enterprise bonds.

With the shift of the focus of Chinese economic reform from rural areas to urban areas, the level of retained profits of SOEs further improved, but government expenditure further increased. Government budget deficits tended to grow. People came to know that it was difficult to mobilize enterprises and residents to subscribe to treasury bonds in large numbers in the long term simply with administrative power. In order to maintain the reputation of treasury bonds, the government must issue treasury bonds according to market-oriented requirements. **In 1985, China began to introduce**

the market mechanism to issuance of treasury bonds. The yield of the treasury bonds issued in that year was 0.7% above the bank deposit rate for the same period, and the redemption period of treasury bonds was explicitly stipulated. Meanwhile, the Ministry of Finance began to try out the work on circulation of treasury bonds to improve the liquidity of treasury bonds. Due to the introduction of market-based issuance mode, the degree of administrative allocation was weakened in treasury bonds issued in 1985 and distorted economic relationships were reduced during bond issue. **This provided necessary conditions for rapid expansion of issuing size of treasury bonds in the following years.**

Before 1987, Chinese treasury bonds had only primary issue market but no secondary circulation market . On January 5, 1987, the Shanghai Branch of People's Bank of China published the *Interim Provisions on Over-the-Counter Trading of Securities*, which expressly stated that over-the-counter (OTC) trading of certified government bonds, financial bonds and enterprise bonds may be conducted at approved financial institutions. **This symbolized the entry of Chinese treasury bond market into its formation stage.**

In 1988, the issuance of Chinese treasury bonds was in a very serious situation. On the one hand, serious inflation and a growing size of government investment greatly pushed up government budget deficits. Judging from the relationship between fiscal system that time and fiscal revenue and expenditure, continued increase of the issuing size of treasury bonds already became a basic initiative to maintain balanced fiscal revenue and expenditure. On the other hand, with gradual maturity of treasury bonds, the peaks in redemption of treasury bonds were to appear in China in 1990s. The source of funds for redemption of treasury bonds was undoubtedly funds received from increased issuing size of treasury bonds. In such case, if the treasury bond trading market was not built to promote the circulation of treasury bonds, this would not only greatly increase the government's bond issuing cost, but also further exacerbate the black market trading of treasury bonds and affect the reputation of treasury bonds, which would finally lead to the difficulty in issuing treasury bonds. Therefore, in April 1988, the State Council approved pilot reform on treasury bond circulation and transfer market in 10 cities with good basic conditions including Shenzhen, Guangzhou, Wuhan, Chongqing, Shenyang and Harbin. In June of the same year, on the basis of experience summary, China approved the implementation of pilot reform on treasury bond circulation and transfer in 61 Chinese large and medium-sized cities. Spot **transaction of bonds at bank counters began to appear and this was the rudiment of curb market. The secondary market of Chinese treasury bonds started from this point**. In 1990, the treasury bond circulation and transfer market further expanded the categories permitted for treasury bond trading from treasury bonds initially issued in 1985 and 1986 to all treasury bills and notes already issued by the Ministry of Finance.

At the start of the founding of the treasury bond circulation market, the main trading mode of treasury bonds trading was OTC trading. The majority of intermediary agencies initially featured treasury bond service departments and finance securities companies set up by the financial sector, and later featured securities companies established by banks and other financial institutions. In the era where OTC trading of treasury bonds prevailed, because the national treasury bond market was segmented, transaction prices of treasury bonds differed greatly in different cities. In particular, trading desks of various intermediary agencies distributed across the country lacked clearing and supervision mechanism, the short selling phenomenon occurred frequently during treasury bonds trading. In order to contain the shortcomings of the treasury bond OTC trading market, after December 1990, Shanghai Stock Exchange, Shenzhen Stock Exchange and some urban stock trading centers were successively set up. Those centralized trading market accepted the escrow of physical bonds and switched to trading of book-entry bonds on the basis of escrow vouchers. **On December 19, 1990, the People's Bank of China and the Ministry of Finance issued a notice, which permitted the listing and transfer of all unmatured treasury bills and notes issued to individuals.** Therefore, **centralized matchmaking Treasury bond trading markets emerged in China and a market pattern marked by co-existence of floor and OTC trading was formed.** Within one year or so, the Treasury bond market pricing mechanism under which floor transaction price of Treasury bond in Shanghai Stock Exchange guided OTC transaction price of treasury bonds finally formed.

(2) 1990-1991: Shanghai Stock Exchange and Shenzhen Stock Exchange were established

After the Reform and Opening-up, China began to break away from the bondage of the planned economy system and explore the path to market-oriented resource allocation. **In 1984, the Third Plenary Session of the Twelfth Central Committee of the CPC adopted the decision to reform the economic system. After that, the State Council set up the financial system reform research group led by Liu Hongru. The preliminary scheme for financial system reform put forward the establishment of stock exchanges for the first time, and it also proposed permitting enterprises to conduct direct financing by issuing shares and bonds.** With strong government support, China's shareholding economy emerged and the size of stock issue continually expanded. According to statistics from the *Almanac of China's Finance and Banking* (1993), by the end of 1990, China had raised RMB4.59 billion funds via stock issue. Among others, the issuing size peaked in 1988, which was attributed to the decision of Chinese central leadership to expand and deepen pilot projects on shareholding reform[32]. In term of stock trading, the pattern of OTC trading in private was generally adopted before 1986. With an increasing number of stocks issued and growing size of stock issue, PBOC approved the construction of Shanghai and Shenzhen stock trading desks in 1986 and 1987 respectively. By 1990, Shanghai had a total of 16 stock trading desks and Shenzhen had 10 trading desks.

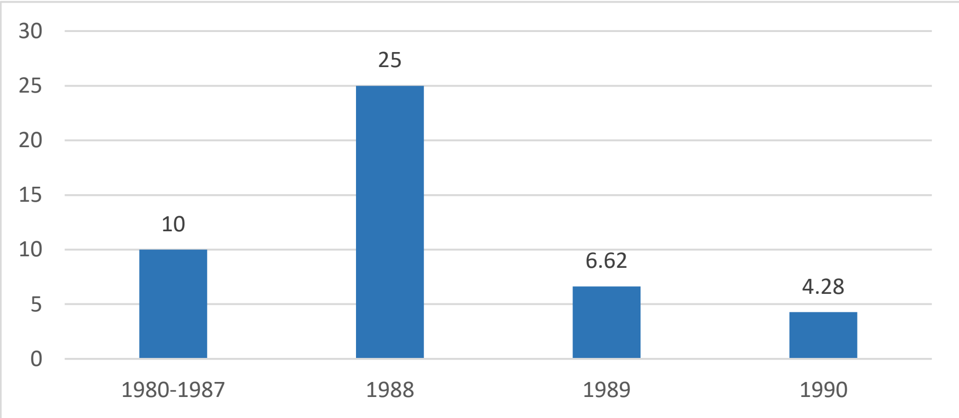


Figure 21 China's fundraising via stock issue before 1990 (RMB100 million)

Source: Qingquan MA, A History of Securities in China 1978-1998[M]. CITIC Press, 2003.

The expansion of stock issue and trading size in 1980s laid a foundation for the establishment of stock exchanges in 1990, but objective conditions were not ripe at that time. The main problem was that "there are now a very limited number of companies qualified for listing. It is best that there are 100-200 companies qualified for listing, including 50-100 companies that are able to get listed. The creation of a stock exchange will happen without effort by that time."[33] After the political turbulence at the end of spring and beginning of summer in 1989, foreign countries became skeptical or even resisted China's reform and opening-up and the Group of Seven imposed economic sanctions on China, which led to massive withdrawal of foreign capital. The sources of funds required for maintaining production and operation of SOEs reduced greatly, and banks had difficulty in providing required funds due to high risks[34]. In such case, the issue of trying out direct financing and setting up stock exchanges was put on the agenda.

---

[32] Data is quoted from Research on the 30 Years of China's Financial Reform and Opening-up authored by Li Yang and Wang Guogang.

[33] Oral history by Gong Haocheng and Wei Wenyuan: How Shanghai Stock Exchange was Created http://finance.jrj.com.cn/2018/06/27063224731717.shtml

[34.] Xie Baisan: Chinese Stock Market was Meant to Serve State-run Enterprises http://finance.eastmoney.com/news/1370,20120528208058219.html

In order to raise funds for the development of SOEs, promote SOEs management system reform and tell the world that China's Reform and Opening-up continues, Zhu Rongji, then secretary of CPC Shanghai Municipal Committee and mayor of Shanghai, presided over an enlarged meeting of the Standing Committee of CPC Shanghai Municipal Committee on December 9, 1989, and invited Liu Hongru, then deputy governor of the People's Bank of China, Gong Haocheng, president of PBOC Shanghai Branch, Bank of Communications chairman Li Xiangrui and financial expert Prof. Chen Biaoru to attend the meeting and discuss and decide on the creation of Shanghai Stock Exchange.[35] Zhu Rongji was quoted as saying at the meeting, "enterprises are in financial strain and heavily burdened. This year's contract base can be hardly fulfilled, and things will be more difficult next year", "Shanghai shall accelerate the pace of financial reform and regain its past glory as an international financial hub. The top priorities are to open the market for foreign banks and establish a stock exchange, which are two most pressing issues in the reform", "we must be bold enough to set up a stock exchange and develop the stock market". In the end, the meeting decided to set up a "three-person task force" comprising Li Xiangrui, He Gaosheng and Gong Haocheng, which was responsible for preparing for the construction of Shanghai Stock Exchange. Meanwhile, "Beijing Joint Office on Stock Exchange Research and Design" led by returned scholars like Wang Boming and Gao Xiqing provided plenty of valuable advice on the preparation of Shanghai Stock Exchange. Shanghai Stock Exchange opened for business at the end of 1990, and Shenzhen Stock Exchange commenced its operation in 1991.

（3） 1992: The China Securities Regulatory Commission (CSRC) was established.

The immediate cause of the founding of CSRC was the "8·10" Incident that broke out in Shenzhen in 1992. After the founding of Shanghai Stock Exchange and Shenzhen Stock Exchange, the stock market gradually fell into a frenzy. Because the prices of new stocks tended to rise quickly after their issue, investors developed a mentality of "buying is earning" and fell into panic buying of new stocks. Due to short supply, Shenzhen municipality decided to issue lot-drawing sheets for subscription for new stocks. The announcement stated that: "a total of 5,000,000 subscription forms for offering of new shares are issued, and 500,000 effective lot-winning sheets are to be drawn out on the one-off basis. The lot winning rate is about 10% (actual lot winning

[35] Xie Baisan: International Comparison of Securities Markets [M]. Tsinghua University Press, 2003.

rate is calculated according to the total number of recovered lot-drawing sheets). Each lot-winning sheet entitles the holder to subscribe to 1,000 shares issued by the company." Driven by expected huge profit, millions of people lined up for subscription lot-drawing sheets at a total of 303 points of sale. However, subscription sheets were handed out shortly after the start of the offering of new stocks. On suspicion of serious internal fraud, people went into violent confrontations and staged demonstrations. In response to this crisis, the government made an announcement, distributed 5,000,000 more lot-drawing sheets and advanced the issue of 1993 quota. Li Peng, then premier of the State Council, supported Li Hao, then secretary of CPC Shenzhen Municipal Committee by saying, "you are at the frontline and you get first-hand information, so this issue will be handled according to your opinion". Although the crisis was successfully resolved, the event pushed the central government to make up its mind to set up a specialized watchdog for the securities market.

In October 1992, the State Council set up the Securities Commission of the State Council and China Securities Regulatory Commission (CSRC). In December 1992, the State Council issued the *Notice on Further Strengthening the Macro-Management of the Securities Market*, which defined the system of central government's unified management of the securities market. This signaled the gradual inclusion of China's securities market in the national unified supervision framework, and the national market began to develop from this point.

Within the same period, legal construction of securities market was also advanced. In August 1992, the drafting of the *Securities Law of People's Republic of China* ("Securities Law") kicked off. But the drafting process was full of twists and turns. That law was not adopted until December 1998 and it was put into force in July 1999. This is the first economic law since the founding of the New China which has been drafted in accordance with international practice under the organization of China's top legislature instead of a particular government department. The implementation of the *Securities Law* meant that China established the position of the securities market in the form of law, laid the basic legal framework of China's securities market, and signaled that the legal construction of Chinese securities market had entered into a new stage. From then on, the *Securities Law* went through 3 amendments and 1 revision with continual development of the securities market.

（4） 1999-2007: Formerly pre-IPO non-tradable shares held by pre-IPO owners are allowed to be sold after collective bargaining between the owners and the existing shareholders

The split-share structure means the classification of shares of A-share listed companies into tradable shares and non-tradable shares depending on whether such shares can be listed for trading on stock exchanges. The shares held by shareholders before IPO of a listed company that can be transferred by agreement only are called non-tradable shares, while publicly-offered shares bought by general public that can be listed for trading on stock exchanges are called tradable shares. By the end of 2004, total share capital of listed companies was 714.9 billion shares. Among others, the total number of non-tradable shares was 454.3 billion shares, which represented 64% of the total share capital of listed companies. State-owned shares accounted for 74% of all non-tradable shares.[36]

The root cause of the split-share structure is a concern for privatization. If all shares were listed for circulation and could be bought by anybody, it was difficult to ensure the basic principle of public ownership as the mainstay and the stock market could not be established and allowed to develop at that time. Additionally, shareholding reform and listing of SOEs was chiefly aimed at exploring new management mechanism and raising some incremental capital. However, **the transfer of State-owned assets often adopted the method of administrative allocation and State-owned stocks lacked internal demand for listing and circulation.**

As an institutional defect left over by history, **the split-share structure restricts healthy development of Chinese capital market in many aspects.** Firstly, due to limited size of tradable shares, share prices of listed companies are easily manipulated and tend to fluctuate greatly. Secondly, the holders of non-tradable shares pay more attention to change in net value of assets and fluctuations in share prices do not impact greatly on them. Share prices can hardly constitute effective incentive and restraint on majority shareholders and the management. Thirdly, capital circulation of listed companies is divided into two markets including negotiating transfer and listed trading, and two prices thus exist. As a result, market-based capital operation of listed companies including M&A (merger and acquisition) and restructuring lacks pricing basis. Fourthly, negotiating transfer market price is not transparent and price discovery is not adequate, which adversely affects smooth circulation and market-based valuation of State-owned assets.

[36] Liu Hongru: The Change: The 60-Year Development of China’s Financial System [M]. China Financial Publishing House, 2009.

Before split-share structure reform, there used to be two unsuccessful experiments on shareholding reduction of State-owned shares. In September 1999, the Fourth Plenary Session of the Fifteenth CPC Central Committee issued the *Decisions on Several Significant Problems concerning the Reform and Development of State-owned Enterprises*, which pointed out that "… we may select some reputable State-controlled listed companies with great development potential and appropriately reduce our holding of State-owned shares without prejudice to State control. Funds thus obtained will be used by the country for the reform and development of SOEs". In December 1999, China Securities Regulatory Commission announced the plans of 10 listed companies to reduce the holding of State-owned shares via allotment. However, owing to inappropriate selection of pilot companies and allotment pricing, the pilot project was stopped.

On June 12, 2001, the State Council promulgated the *Interim Measures on the Management of Reducing the Holding of State-owned Shares for Raising Social Security Funds*, which started the exploration to reduce the holding of State-owned shares through secondary offerings on the securities market. After the implementation of the *Interim Management Measures*, 13 listed companies reduced the holding of State-owned shares as required during their IPOs and 3 listed companies did so during their additional issue of shares. However, the market failed to respond actively to the foregoing Measures and large fluctuations occurred. The main reason was that shareholding reduction was conducted according to PE of about 20X, but the original subscription cost of the holders of State-owned shares was generally around RMB1 or further reduced through repeated allotment. Forcing public investors to buy shares transferred by holders of State-owned shares with market premiums of tradable shares raised the suspicion of high-price "money encirclement". On June 23, 2002, the State Council announced that for domestic listed companies, China would no longer exercise the requirement of the *Interim Management Measures* on reducing the holding of State-owned shares through the securities market.

The two failed pilot projects on shareholding reduction of State-owned shares indicate that the resolution of split-share structure problem cannot be accomplished in an action. The *Several Opinions of the State Council on Promoting the Reform and Opening-up and Stable Development of the Capital Market* issued by the State Council on January 31, 2004 expressly required that relevant departments "… should actively and appropriately solve the split-share structure problem", and put forward the general requirement that "during solution of this problem, we shall respect market laws and do everything to promote market stability and development and practically protect lawful rights and interests of investors especially small and medium-sized public investors".

The essential difference between the abovementioned solution of the split-share structure problem and the previous shareholding reduction of State-owned shares lies in that the core objective is not cash realization and fund raising but eliminating capital market's institutional defect. After the release of the Several Opinions, such departments as CSRC, SASAC and the Ministry of Finance jointly established a trans-department task force, which studied and put forward the "theory of consideration". This theory changed the pricing expectation that "shares held by shareholders of a listed company shall not be listed for circulation before public offering of its shares" **by allowing listing and circulation of shares held by holders of non-tradable shares and determining the "consideration" through the market-based approaches depending on actual conditions of different listed companies**.

On April 29, 2005, China Securities Regulatory Commission issued the *Notice on Issues concerning Pilot Program on Split-Share Structure Reform of Listed Companies*, which initiated the pilot program on split-share structure reform. The split-share structure reform was carried out step by step according to the principle of "launching a pilot company only when its conditions are ripe". On May 24, China CAMC Engineering Co., Ltd. issued a prospectus and thus realized the first IPO after "separation of new and old stocks", which signaled the full recovery of the market financing function. By the end of 2006, the total market capitalization of listed companies that completed or entered into the split-share structure reform procedure accounted for 98% of the total market capitalization of all listed companies that should be reformed. This meant the task of split-share structure reform had been basically completed.

The smooth implementation of split-share structure reform ruled out the problem of interest splitting and price splitting of State-owned shares, corporate shares and tradable shares. As a result, shareholders of various types enjoyed the same right of shares listing & circulation and right to earnings in share prices, and shares of various types were priced under the unified market mechanism and became the basis for common interest of shareholders of various types. The basic fulfillment of split-share structure reform and a series of policy measures combining split-share structure reform with market stability and development eliminated the biggest uncertainty that may affect the market's expected stability. In a sense, **the split-share structure reform is of historical significance in laying a market foundation for the enhanced role of Chinese capital market in optimizing resources allocation and eliminating the essential difference between Chinese capital market and international markets on basic market system.**

（5） 2004-2007: Tightening regulations of investment banks, fighting crises of investment banks abusing their clients funds

In September 1987, China set up Shenzhen Special Zone Securities Company, the first specialized securities company in China. In 1988, PBOC allocated special funds and set up 33 securities companies in different provinces, and the finance system also set up a number of securities companies whose main business was trading treasury bonds. After 1992, securities intermediaries mushroomed in large numbers with the formation of a national securities market, and the shareholders of those securities companies were mostly banks, local governments and relevant ministries/commissions. By the end of 2017, China had a total of 131 securities companies.

Due to defects existing in relevant systems and mechanisms, numerous contradictions and problems arose during the development of securities companies, including frequent occurrence of illegal or irregular acts like securities companies misappropriating customers' trading settlement funds and securities arbitrarily, conducting financial activities against relevant regulations and shareholders and affiliates occupying funds. Between the end of 2003 and the first half of 2004, risks lurking in the operations of many securities companies over years broke out intensively and the whole industry was faced with the most serious crisis since its birth. For example, Southern Securities, then China's biggest securities company, began to manipulate Hafei Aviation and Harbin Pharmaceutical around 2000. When share prices declined and external funds were not enough to sustain its operations, Southern Securities misappropriated customer margins to repay invested principals. In January 2004, due to misappropriated customer margins in the aggregate amount of RMB8.0 billion and huge loss to proprietary trading business, Southern Securities was hit by a payment crisis. Later on, China Securities Regulatory Commission and Shenzhen Municipal Government announced an administrative take-over against that company.

To resolve the problems fundamentally, China Securities Regulatory Commission carried out comprehensive regulation of securities companies under the State Council's deployment and in three aspects including risk disposal, daily supervision and promoting the industry's development. Concrete measures included: firstly, get a clear picture of all risks existing in securities companies and forcefully supervise and urge securities companies to make rectification; secondly, treat high-risk companies timely and reliably, set up securities investor protect funds, and establish a long-standing risk disposal mechanism; thirdly, encourage relevant sides to restructure risky companies without prejudice to laws, regulations and regulatory requirements to make sure that they attain the standards for sustained compliance operation; fourthly, reform and perfect basic systems including depositing and management of customer funds, repurchase of treasury bonds, asset management and proprietary securities trading, and establish the system of public disclosure of financial information by securities companies; fifthly, conduct classified supervision over securities companies, and establish a new mechanism of linking companies' business scope and size to dynamic change in their net capital; sixthly, encourage highly qualified companies to develop innovatively and support excellent companies to grow better and stronger; seventhly, improve the collaboration mechanism among securities regulator, public security and judicial organs, intensify responsibility investigation, tighten market discipline, severely investigate and punish illegal and irregular acts, and resolutely contain illegal and irregular activities; eighthly, devise or revise relevant laws & regulations and perfect the system of laws and regulations on supervision of securities companies.[37]

By the end of August 2007, the work on comprehensive regulation of securities companies was concluded with all major regulation goals fulfilled. China basically solved problems that used to materially affect the industry's healthy development (such as false financial information, off-balance-sheet operation, misappropriation of customer assets, and occupation of customer funds by shareholders and affiliates), initially established the long-standing risk prevention mechanism, and reformed and perfected various basic systems. Since 2006, the previous trend that securities companies used to suffer losses for 4 consecutive years (2002-2005) has been reversed. By the end of 2007, the aggregate assets and net assets of 106 companies in the industry was RMB1,731.3 billion and RMB3,447.4 billion respectively, which was 354% and 283% of the corresponding figure by the end of 2000 just before commencement of comprehensive regulation. In 2007, the whole industry recorded total operating revenue of RMB284.7 billion and net profit of RMB132.0 billion, and 104 companied made a profit. All key financial indicators reached or exceeded historical highs.[38]

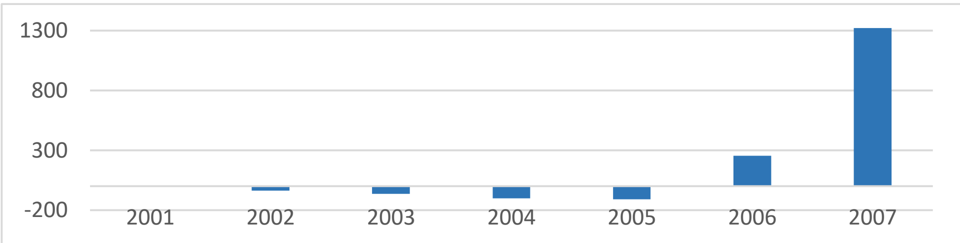


Chart 19 Net profit of securities companies in 2001-2007 (RMB100 million)

Source: China Securities Regulatory Commission

[37] Liu Hongru: The Change: the 60-Year Development of China's Financial System [M]. China Financial Publishing House, 2009.

[38] Wu Xiaoling: Retrospect and Prospect of China's 30-Year Reform of Financial System [M]. People's Daily Press, 2008.

（6） 2003-2018: Allowing limited capital flow between the mainland and Hong Kong markets; dealing with the stock market crash of 2015

China's securities market adopts limited and paced opening-up. In 1992, the B-Share Stock Market was launched. Though denominated only in US dollars and HK dollars, it allowed foreign investors entering China's stock market for the first time. In June 2006, ZHOU Xiaochuan, then the President of CSRC, indicated the possibility of setting up Qualified Foreign Institutional Investors (QFII) Program in an international conference, which would allow foreign institutional investors to invest in China's A-share stock market with RMB. In July 2003, the first QFII order, sent by UBS purchasing four stocks, got confirmed and executed, symbolizing the official launch of QFII.

To furtherly expand the opening up of China's capital market, support Hong Kong as an international financial center, and promote the development of offshore RMB market in Hong Kong, a pilot program of RMB-QFII (RQFII) was announced by CSRC, PBC and SAFE jointly, allowing qualified mutual funds and Hong Kong based sub-companies of securities companies to invest directly with RMB raised in offshore markets. Further reforms on QFII and RQFII were implemented in 2016 and 2018, comprehensively relaxed investment requirements. By the end of May 2018, 287 QFII investors have been granted USD99.5 Billion quotas, and 196 RQFII investors have been granted RMB615.9 Billion quotas.

In 2014 and 2016, the "Shanghai-Hong Kong Connect" and the "Shenzhen-Hong Kong Connect" were launched in addition to the QFII/RQFII programs, respectively. Those two program allows international investors and Chinese investors trading securities with local settlement facilities. By the end of August 2018, traded volume under the "Shanghai-Hong Kong Connect" have been about RMB10 trillion, "Shenzhen-Hong Kong Connect" about RMB3.5 trillion. In July 2017, the "Bond Connect" was launched, allowing investors in Hong Kong purchasing bonds issued in the Mainland market. By May 2018, foreign investors hold more than RMB 1.4 trillion bonds, 1.7 times the volume before the launch of "Bond Connect".

In 2015, the stock market both in Shanghai and Shenzhen crashed in a short term. Shanghai Composite Index dropped by 45% in less than three months and Second-board Market Index dropped by 56%.

The government intervened with a series of measures. On June 28th, 2015, the central bank decreased the deposit reserve rate by 25 basis points. But it did not manage to stop the market drop. The China Securities Regulatory Commission reacted by announcing a sequence of measures to boost the market. First, restrictions were put on new IPOs and their size. In the early June, only 10 new stocks were scheduled to be listed. Second, efforts were made to attract foreign long-term-oriented funds, nearly doubling qualified foreign institutional investors investment quota (from 80 billion USD to 150 billion USD). Third, the registered capital of China Securities Finance Corporation increased to 100 billion RMB from 240 billion RMB and enlarged its funds support for securities firms' trading operations. Fourth, those who spread rumors in the market were severely punished.

The government coordinated and supported securities firms to increase their investments in the market. On June 4th, 2015, 21 securities firms met with the CSRC and decided to allocate more than 120 billion RMB to buy blue chip stocks ETF, trying to boost Shanghai Composite Index to return to 4200. China Securities Finance Corporation and the CSRC provided funding support up to 520 billion RMB. Central-government-owned firms were instructed to increase their stock holding portfolios. Controlling shareholders and high level managers of listed firms were allowed to increase their ownership share, which was previously tightly regulated.

Also, the government put brakes on stock selling pressures. For example, CSI 500 futures short-selling margin was raised to 30%. Shareholders of listed firms with more than 5% ownership are not allowed to underweight their shares in 6 months.

The stock market gradually improved with these efforts.

The government has also been making efforts to establish and improve a multi-tiered capital market. The *Decision of the CPC Central Committee on Several Issues concerning Improvement of Socialist Market Economy System* adopted at the Third Plenary Session of the Sixteenth CPC Central Committee in October 2003 mentioned the establishment of a multi-tiered capital market for the first time. The foregoing Decision expressly called for "establishing a multi-tiered capital market system, improving capital market structure, and diversifying capital market products". Specific expression related to the above requirement was "… we shall regulate and develop the main board market and promote the construction of venture capital and growth enterprise markets".

At that time, the growth enterprise board was not launched for various reasons. As a transitional substitute, a relatively independent SME (small and medium-sized enterprises) board was set up within the main board of Shenzhen Stock Exchange in May 2004. The SME board is an independent board set up within Shenzhen Stock Exchange to facilitate the issue and listed transaction of shares of small and medium-sized enterprises, and this is a separate board with independent operation, independent supervision, independent codes and independent indexes and without prejudice to existing laws and issuing and listing standards for main board enterprises.

In October 2007, the Report to the Seventeenth National Congress of the Communist Party of China deepened relevant statements by emphasizing that "… China shall develop various types of financial markets and an efficient, secure modern financial system with various types of ownership and diverse modes of operation and with a reasonable structure and all sound functions", especially "optimize the capital market structure and increase the proportion of direct financing through multiple channels".

On October 30, 2009, the growth enterprise market board was officially launched at Shenzhen Stock Exchange. According to data, average PE of the first batch of 28 GEM listed companies was 56.7X, and the highest PE recorded by Bode Energy was 81.67X, well above the average PE of all A-shares and that of the SME boards.[39]

In November 2012, the Report to the Eighteenth National Congress of the Communist Party of China further emphasized the importance of "accelerating the development of the multi-tiered capital market". The multi-tiered capital market included floor trading high-level markets like Shanghai and Shenzhen stock exchanges, and also included OTC trading New Third Board and New Fourth Board markets.

In November 2013, the Third Plenary Session of the Eighteenth CPC Central Committee adopted the *Decision of CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform*. The report further deepened the understanding of the multi-tiered capital market by emphasizing that "… we shall improve the multi-tiered capital market system, promote the reform of the stock issue registration system, advance equity financing through diverse channels, develop and regulate the bond market, and raise the proportion of direct financing. We shall encourage financial innovation and enrich financial market levels and products". At this time China more deeply knew that it was necessary to establish a more diverse multi-tiered capital market, including floor and OTC markets, publicly-offered funds and privately-offered funds, stock and bond markets, domestic and international markets.

At the end of 2013, the State Council issued a decision on setting up a New Third Board. The New Third Board became the third national stock exchange following Shanghai Stock Exchange and Shenzhen Stock Exchange, and it is mainly intended to provide services for innovative, entrepreneurial, growing medium-sized, small and

[39] https://zh.wikipedia.org/wiki/Shenzhen Stock Exchange's Growth Enterprise Market Board

micro enterprises. In the past five years, the New Third Board has become the global largest stock exchange by number of listed enterprises, and the number of listed enterprises has increased from less than 200 to “more than 10,000”; the total market capitalization of listed enterprises has increased from less than RMB30.0 billion to RMB5.15 trillion, and the annual financing amount has increased from less than RMB1.0 billion to nearly RMB140.0 billion.

In January 2017, the General Office of the State Council issued the *Notice on Regulating the Development of Regional Equity Markets*. According to the notice, the fourth board market shall be positioned as a private market chiefly serving medium-sized, small and micro enterprises within the relevant provincial administrative region and be an important component of the multi-tiered capital market system. The market shall be a platform for local people’s governments to comprehensively utilize policy measures to serve medium-sized, small and micro enterprises. So far, China has had 40 regional equity markets serving over 80,000 medium-sized, small and micro enterprises, and regional equity markets in different provinces, autonomous regions and municipalities directly under central government explore their unique ways to provide precise services for local enterprises.

On November 5, 2018, Chinese president Xi Jinping announced at the opening ceremony of the First China International Import Expo that China would set up a science and technology innovation board and try out the registration system at Shanghai Stock Exchange in order to support the construction of Shanghai as an international financial hub and science & technology innovation hub and continually improve basic systems of capital market.

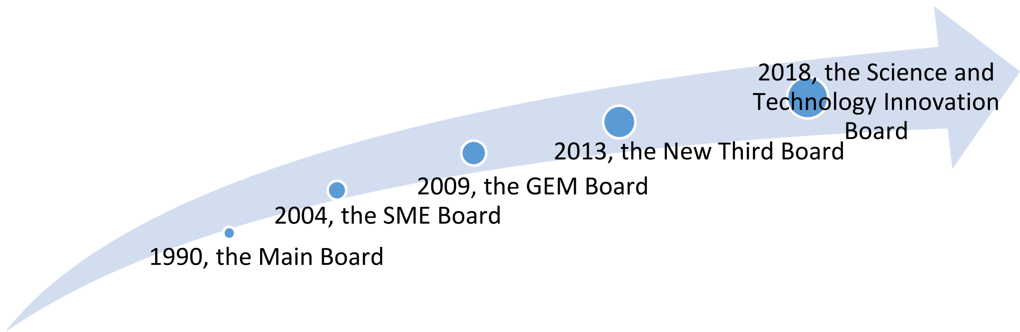


Chart 20 Establishment and improvement of multi-tiered capital market

Source: ACCEPT analysis.

III. ECONOMIC ANALYSIS

1. The development of the financial system cannot do without governmental fostering and regulation

China's 40-year development of financial system clearly demonstrates that autonomous adjustment of the financial system alone can hardly guarantee efficient, stable operation of the financial system and the government must participate in fostering and regulation of the financial system. On one hand, because of complexity and relevance of the financial system, the distortion or failure of the financial system will cause more serious damage than other markets. On the other hand, because smooth operation of the financial system has much to do with the development of individuals, enterprises and economy, the financial system is a pubic goods and has huge externality.

On the micro level, financial market behavior of micro-economic subjects needs to be regulated by the government. Due to capital's motive of pursuing profits, autonomous adjustment and correction of financial subjects alone tends to lead to distortion and chaos in the end. For example, before the founding of CSRC in early 1990s, "stock craze" swept the whole country and autonomous, arbitrary stock issue by enterprises, small and large, and securities markets spread unchecked in different cities. People even developed a misconception that "buying is earning". Under such crazy atmosphere, people struggled for stock subscription sheets. In 1992, the notorious "8·10 Incident" shocked the whole nation. This incident showed that with the deepening of shareholding reform and issuance of negotiable securities of various types, especially rapid development of the stock market, it was imperative to establish a centralized, unified supervision agency to unify regulations and systems and implement unified supervision. It was against such background that the State Council set up China Securities Regulatory Commission (CSRC).

In terms of industry development, government regulation is an effective force driving industry reform. In 1990s, State-owned commercial banks developed plenty of risks, which used to arrest much attention of international communities. At that time, some international media and institutions even asserted that Chinese solely State-owned commercial banks were "technically bankrupt". In order to solve huge non-performing assets of solely State-owned commercial banks, the government invested large quantities of resources. For instance, the government issued RMB270.0 billion of special bonds in 1998 to supplement statutory capital of four solely State-owned commercial banks. In 1999, China stripped RMB1.4 trillion of NPLs from four banks[40] and transferred those loans to four specially established financial asset management companies for disposal. After 2003, China implemented the shareholding reform and listing of State-owned commercial banks. It can be seen that without government intervention and support, banks alone could not safely resolve crises at that time.

On the macro level, the resolution of systematic crisis requires government intervention. Take 2008 economic crisis as an example. Before that, the core idea of the neo-liberalism prevalent in the Western society is restricting governmental activities and maintaining that an unregulated market is more superior. The outbreak of the crisis indicated that market self-correction alone could not control risks, restore confidence, re-create balance sheets or re-start economic growth. Only national force and government agencies could solve the following problems: playing the role of "life raft" for the financial system at critical periods to prevent the collapse of the financial system; providing direct incentive for the real economy to make up for a drastic decline in private demand; designing national and global supervision mechanisms to prevent the reoccurrence of similar crises. As a matter of fact, for systematic financial risks and crisis events, there is so far no other alternative private financial market solution that is comparable with strong government intervention.[41]

2. A steady progress of local-currency-based financial deepening is essential for fast investment in the real economy, channeling savings into investment

Financial deepening is mainly reflected in the expanding varieties and quantity of financial products and services, and in the enlarging population who have access to these financial products and services.

The academia often uses the ratio of broad money supply (M2) to GDP to measure the degree of "financial deepening". Broad money M2 has been expanding since the start of the Reform and Opening-up. At the end of 1990, M2 stock amounted to RMB1.5 trillion and the M2/GDP ratio was only 0.78. At the end of 2017, M2 stock reached RMB167.7 trillion and the M2/GDP ratio rose to 2.07. Another indicator frequently used to measure the financial deepening degree is the proportion of the financial industry's added value in GDP. It was 5.45% in 1992, but rose to 7.95% in 2017. As a

[40] According to the Several Issues Concerning the Reform of State-owned Commercial Banks —Speech at 2005 Academic Conference of China Society for Finance and Banking delivered by Tang Shuangning on March 25, 2005, RMB1,393.9 billion of assets stripped at that time included approximately RMB1 trillion of NPLs of four major State-owned banks, RMB100.0 billion from China Development Bank, over RMB100.0 billion of on-balance-sheet interest, and over RMB100.0 billion of normal loans stripped for debt for equity swap.

[41] Ma Yong, Chen Yulu. Government-Market Relationship in Financial Development: National Endowments and Efficient Frontier [J]. Finance & Trade Economics, 2014, 35(3):49-58.

comparison, in 2017, the added value of the finance and insurance industry in the US accunted for around 7.5% of its GDP.

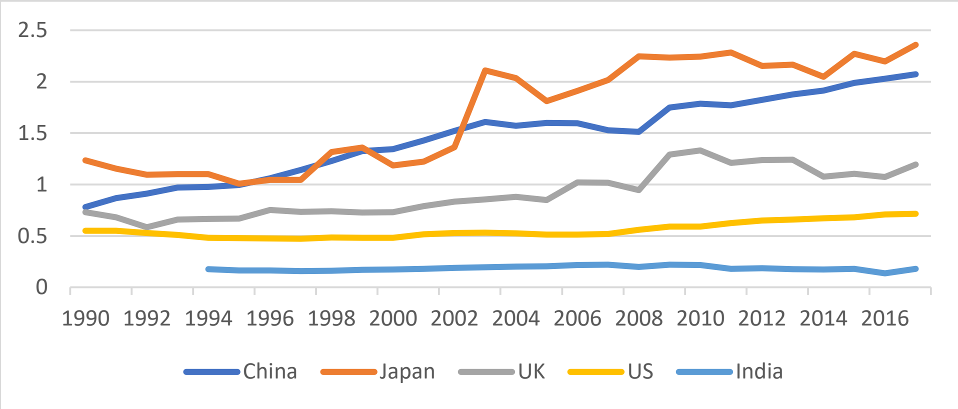


Chart 21 M2/GDP ratio in different countries

Source: CEIC Database

In terms of financial product varieties and quantity, financial assets held by residents were chiefly savings deposits before the Reform and Opening-up. Since 1990, bond and stock markets have been developing and growing from scratch. By the end of December 1992, the balance of bonds (government bonds and corporate bonds) was merely RMB210.5 billion and the total stock market capitalization was merely RMB104.8 billion in China. At the end of September 2018, the balance of bonds (government bonds and corporate bonds) reached RMB52.2 trillion, about 248 times of that in 1992; the total stock market capitalization reached RMB48.7 trillion, about 464 times of that in 1992. Additionally, based on relevant estimation, the balance of financial products of various types neared RMB30 trillion by the end of 2016.

The venture capital (VC) industry has also developed fast and China has become one of the world's largest VC markets. According to statistics from Zero2IPO Research, China's VC investment size totaled US$30.0 billion and the ratio of VC investment to GDP reached 0.25% (5 times the 2006 figure) in 2017. In terms of VC investment amount and quantity of VC institutions, China may be the world's second largest VC market[42]. In terms of financing amount, VC financing size in China reached US$51.0 billion in 2017, which surpassed the corresponding US figure for two consecutive years and made China the world's No. 1 VC financing market. The ratio of VC financing amount to GDP in China reached 0.4% (the US figure generally ranged between 0.2% and 0.3%). Due to the fact that new funds raised outnumbered investments, the amount

[42] According to data from FactSet , among global VC investment amount in 2017, the US ranked first with 55% share and China ranked second with 17% share. According to data from Preqin, measured by number of VC institutions, the US now ranks first with 1,199 VC institutions and China ranks second with 368 VC institutions among the world's major markets.

of existing investable capital in China continued to rise and now reaches US$114.0 billion, which is close to the US level[43].

It is also noted that new financial products featuring Internet-based FinTech have been growing fast over recent years. According to iResearch's survey report, the transaction size of general online credit products exceeded RMB10 trillion and the size of Internet-based asset management industry reached RMB3.5 trillion in 2017.

Based on the above analyses of various financial assets and the foregoing compilations of statistics on asset size of different financial categories, we have figured out the changes in the value of China's financial assets in recent years, and the ratio of financial assets value to GDP. China's financial assets have been expanding fast over recent years. The size of China's financial assets rose from RMB54 trillion in 2012 to RMB324 trillion in 2017 and the ratio of financial assets value to GDP rose from 285% to 393%. This reflects China's continual financial deepening. [44].

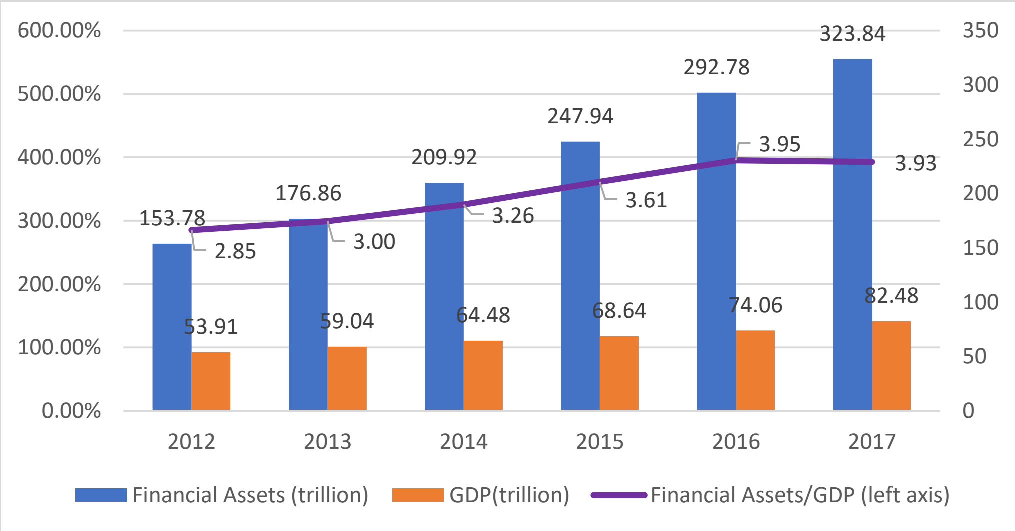


Chart 22 China's financial deepening over recent years

Source: National Bureau of Statistics of China, CBIRC, China Trustee Association, Securities Association of China, Insurance Association of China, Asset Management Association of China, estimations of the Institute for China's Economic Practice and Thinking, Tsinghua University

Residents holding huge amounts of financial assets are one side of the coin. The other side is robust growth of investments in infrastructure, equipment and land in the past 40 years of the Reform and Opening-up. According to National Bureau of Statistics of China, the accumulative completed social investment totaled RMB490 trillion during 1981-2017, which showed a CAGR of 20.2%.[45]

[43] https://36kr.com/p/5147457.html

[44] It is noted that there are still omissions in the statistics of financial assets and the data of some small-sized categories like futures and options is not included here.

[45] http://www.stats.gov.cn/ztjc/ztfx/ggkf40n/201809/t20180906_1621360.html

Participants in the financial market generally exhibited the following two characteristics. First, they account for a large share of the total population. Take stock market as an example. In October 2018, the stock market had a total of 140 million investment accounts. Even if calculated according to 2 accounts per person, the stock market should have more than 70 million investors. In May 2015, when the stock market "advanced triumphantly", the number of both SSE and SZSE accounts exceeded 100 million[46]. **Second, they are quite heterogeneous.** In 2017, the number of people with at least RMB6 million of investable assets ("HNWIs") approached 1.90 million[47], and their investment objectives are inclined towards wealth security, wealth inheritance and children's education instead of purely value appreciation. Those individuals attach greater importance to asset allocation at home and abroad and allocation of investment categories (e.g., purchase of overseas properties and insurance products). For qualified individual investors "whose household financial assets are worth at least RMB5 million, or whose annual average income over recent 3 years is at least RMB400,000 and who has at least 2 years' investment experience"[48], they may invest in privately-offered funds. In 2017, the total size of all privately-offered funds in China exceeded RMB11 trillion and the number of such funds issued exceeded 24,000[49]. For ordinary individual investors, they generally invest in bank deposits, bank financial products and publicly-offered funds. Among others, with increasing popularity of products like Yu E Bao, money market funds have substantially squeezed the share of bank deposits. At the end of September 2018, the total size of money market funds reached RMB8.92 trillion[50], while the total size of publicly-offered funds was RMB11.6 trillion. Banks depended on wealth management products to retain investors and improve profits. At the end of 2017, the value of existing wealth management products aimed at ordinary individual investors was RMB14.6 trillion, which indicated an annual growth of nearly 1/4 and accounted for nearly 1/2 of the total size of wealth management products.

Since the Reform and Opening-up, China's financial deepening has been robust and based on local currency. First of all, the government precisely controls and closely supervises the innovation and development of financial products. For example, in March 2018, the government issued the *Guiding Opinions on Regulating the Asset Management Business of Financial Institutions*. The foregoing document

---

46 http://data.eastmoney.com/cjsj/yzgptj/2015-05-25%5E2015-05-29.html

47 https://baijiahao.baidu.com/s?id=1603692687261408251&wfr=spider&for=pc

48 https://finance.sina.com.cn/stock/y/2017-11-17/doc-ifynwnty4270779.shtml

49 http://funds.hexun.com/2018-03-21/192673561.html

50 https://baijiahao.baidu.com/s?id=1616015285883827077&wfr=spider&for=pc

adjusted the investment threshold of privately-offered funds from "any unit and individual whose amount invested in a single privately-offered fund is not below RMB1 million and complies with relevant standards; individual financial assets was not below RMB3 million or whose annual average income over recent 3 years is not below RMB500,000" to "any individual whose household financial assets are worth at least RMB5 million, or whose annual average income over recent 3 years is at least RMB400,000 and who has at least 2 years' investment experience; any corporate unit whose net assets by the end of most recent 1 year are not below RMB10 million". Such adjustment was actually tightening the requirements for investors. Second, the government restricts residents' purchase of overseas financial assets. Its major measures include: setting individual annual foreign exchange quota (US$50,000), setting overseas withdrawal limit (RMB100,000), and requiring investments in overseas capital markets to be conducted through approved qualified domestic institutions investors (QDII) to restrict "capital flight".

This robust and local-currency-based financial deepening process has promoted economic development. First, more investors get access to the financial market and are able to enjoy capital gains, and more enterprises and individuals may secure fund support from the financial market. Second, the expansion in the varieties and quantity of financial products absorbed large amounts of money, which enabled to the central bank to have greater leeway for its monetary policy while maintaining stable inflation and thus lessened the pressure on fiscal policy.

3. The government needs to proactively stay on top and mitigating financial risk

The Chinese government always attaches great importance to and proactively resolves financial risks, meanwhile underscores the importance of maintaining social stability. Despite occurrence of several financial risk events, the government actively intervened and finally resolved those problems effectively to avoid the occurrence of systematic financial crises and large-scale social unrest.

Firstly, the core decision-makers shall give priority to prevention and resolution of financial risks. After 1997, China held a National Financial Work Conference every 5 years to have in-depth discussions on such topics as prevention of systematic financial risks and perfection of financial supervision system. During 2008 financial crisis, the State Council set up an international financial crisis response group led by Wang Qishan. In the meantime, he also led the formation of the system of one regular meeting on financial work every 10 days to further strengthen the coordination and cooperation among "central bank and three regulatory commissions" and closely watch and forcefully respond to international financial crisis. In 2017, the State Council set up a "Financial Stability and Development Commission", which was chaired by deputy premier of the State Council and whose administrative level was higher than "central bank and three regulatory commission", and its main task was to coordinate matters concerning financial stability, reform and development.

Secondly, the government shall play an important role in preventing the occurrence of systematic crisis. Compared with other countries, China takes measures actively and resolutely, addressed 1997 Asian financial crisis and 2008 global financial crisis successfully and maintained basic stability of China's financial system. During the Asian financial crisis, China strengthened macroeconomic regulation over the money market. Meanwhile, PBOC made 2 RRR (required reserve ratio) cuts and 6 interest rate cuts and issued RMB150.0 billion of additional treasury bonds in 1998, thus maintaining macroeconomic stability with successful control. During the global financial crisis, PBOC made 4 RRR cuts and 5 interest rate cuts and implemented a large-scale package plan to further stimulate domestic market, increase domestic demand and invest in the fields important to people's livelihood, which promoted smooth economic transition.

Lastly, the government shall handle issues concerning social stability properly while resolving financial risks. Social stability is the foundation for sustained economic development, and the intensity of reform must be kept within the tolerance range of social stability in China as a developing nation with large population and social diversity. Chinese government's concrete practices are reflected in the following three aspects: Firstly, China will make a difference between fund security of domestic public investors and fund security of overseas institutional investors under the pressure of circumstances. For instance, in the handling of Southern Securities bankruptcy case in 2004, PBOC specially provided RMB8.7 billion re-loans to help Southern Securities repay all margins of investors previously misappropriated. In contrast, institutional investors involved in the 1998 Guangdong International Trust bankruptcy case were not so lucky. Under the arrangement, more than RMB700 million of principal of deposits of domestic natural persons[51] was to be fully repaid by the Bank of China, and the remaining RMB38.8 billion of domestic and foreign debts (including RMB32.0 billion of debts attributable to overseas creditors) was treated equally with

[51] It included RMB132 million of investors' margins misappropriated by 9 securities sales departments, with data coming from the *Actual Record of Court Trial of the Bankruptcy Case of Former Guangdong International Trust & Investment Co., Ltd.* http://www.chinanews.com/n/2003-03-01/26/277482.html

actual debt service ratio of less than 20%[52]. Secondly, different regulatory agencies have different grass-roots organization and staffing size. PBOC sinks to counties, CBRC sinks to cities, and CSRC sinks to province-level regions; the staffing size of the banking regulatory agency far exceeds that of the securities regulatory agency, which reflects the government's emphasis on protecting residents' deposit security and maintaining social stability. Thirdly, the government imposes different degrees of punishment on different types of illegal financial acts. For example, a crime of fraud in financing carries a maximum death penalty, but the intensity of punishment against illegal acts in securities market is relatively weak. The difference lies in that those two illegal acts impact differently on social stability.

[52] The figure is the amount of declared claims, with data coming from the Gazette of the Supreme People's Court of the People's Republic of China http://gongbao.court.gov.cn/details/bba0bd0d46cb19999c24e15b160713.html

SECTION IV

LEARNING THROUGH OPENING UP

EXECUTIVE SUMMARY

This section first analyzes the stylized facts of China's opening up to the outside world over the past 40 years.

After 40 years of development, the Chinese economy has been integrated into the global economic system and achieved economic upgrade in the process of opening up. Starting from a closed state almost isolated from the outside world, China has become the world's largest exporter, the second largest importer, and the second largest foreign direct investment destination over the past 40 years, and has participated extensively in global value chains. Opening up to the outside world has greatly promoted China's economic development and reform. Through interacting with the world's advanced economies, China has learned internationally advanced knowledge, institutions, and ideas, gradually established a market economy system. At the same time, the Chinese economy has achieved upgrading in the process of opening up and has made remarkable achievements in equipment manufacturing, science and technology, and steadily climbed up the global value chain.

The process of China's opening up has benefited the world economy. China has attracted foreign investment in the process of opening up. A large number of multinational companies have entered China, using China's labor, land and other factors for production, and have realized substantial returns. Although this caused job reallocation in their home countries, it also strengthened the cash flow of these multinational companies, and helped them to recover quickly from the Global Financial Crisis. (e.g. GM). At the same time, Chinese enterprises have rapidly developed in the process of opening up, helped lower global manufacturing costs, and promoted international competition, benefiting consumers around the world.

In the process of opening up, the Chinese government mitigated the shocks of globalization by helping "Chinese Detroits" to revive. The Chinese economy has encountered negative impacts from the international market. These shocks have brought enormous economic and social burdens to certain regions and industries, but the Chinese government has played an active role in absorbing and mitigating these impacts for economic subjects. **With the influx of foreign products, the previously state-owned enterprises in the equipment manufacturing and textile industries were in direr quagmire, millions of workers being laid off and industrial cities located in the Northeast being burdened with heavy social responsibilities**. In the face of these crisis, the government has since done a great deal of work to help laid-off workers tide over difficulties and re-employment and, through the joint effects of land and financial policies, to help enterprises and regions transform and upgrade. It can be said that opening up has made many cities in China more difficulties than those Detroit had faced, but the Chinese government, especially local governments, avoided the Detroit-style decline by playing their own role.

Following the Global Financial Crisis in 2007-2008, the pace of China's opening up regarding several industries slowed down due to various factors. External shocks, slower growth, and the vested interests of diversified domestic economic participants all contributed to the loss of speed. For instance, the automobile industry and the financial service industry could have been more hospitable to foreign competitors. However, since 2018, with strong push from the top leadership, China's opening up have once again sped up.

Secondly, this section reviews the process of opening up, dividing China's opening up process into six stages.

(1) 1970-1978: Purchase whole sets of equipment, such as the introduction of US$4.3 billion worth of chemical fiber, fertilizer, power generation and other projects via the "Four Three Program" in 1972; **(2) 1978-1983: Initial exploration of the opening up,** with the landmark event being the set-up of special economic zones in 1979, commencement of borrowing foreign debts, and the establishment of joint ventures; **(3) 1984-1992: Expanding the areas and the fields of opening up**, such as setting up economic and technological development zones in four coastal cities, and the opened up areas at Yangtze River Delta, the Pearl River Delta, and the Xiamen-Quanzhou-Zhangzhou Triangle Area; **(4) 1993-2000: Deepening opening-up with the aim of constructing a market economy**. After Deng Xiaoping's speeches during his southern tour in 1992, the accelerated integration of foreign investment began. Since then, China has gradually completed a series of tasks such as reducing trade barriers, exchange rate unification, current account convertibility, opening up the financial services industry, responding to the Asian financial crisis, and actively engaging in WTO negotiations; **(5) 2001-2007: Fully integrated to the global economic system.** In 2001, China officially joined the WTO, the economy developed steadily and rapidly, its contribution to world economic growth gradually increased, the tariffs were further lowered, foreign investment access was relaxed, and the pilot programs of capital flows was conducted up; **(6) 2008-present: Participating global economic governance and support economic globalization with more opening-up policies.** At the summits of G20, APEC, BRICS, and other international mechanisms, China has since played an important role, exploring and complementing the existing international economic system through the establishment of the AIIB, the proposed Belt and Road Initiative, etc.

Finally, two conclusions are drawn from economics analysis.

Firstly, learning from the advanced market economies by entrepreneurs, labor, and the government is essential for the economy to upgrade. Opening-up pushes economic subjects in China to get to know the most advanced knowledge, institutions, and ideas across the world, and put them into practice in light of China's reality. In the process of opening up, Chinese local entrepreneurs, labor and governments interact with international advanced enterprises and markets in import and export trade and joint ventures, go abroad to study, and actively learn and understand market economy. In this process China has gradually established the atmosphere and system of market economy and promoted the continuous upgrading. **We attempt to argue that comparative advantage is not as essential as learning.** Comparative advantage did contribute to China's development, but is benefit is limited, and many of China's successful industrial upgrade violates the principles of comparative advantage. Learning does not depend on trade, which is true for many cases of industrializations in history besides China, such as the ones for the US and Germany in late 19th century. It is also true that opening up to the outside world has brought in technology and funds, created employment, and generated taxes, but, from a macro perspective, the impact of learning is more far-reaching.

Secondly, to achieve effective and sustainable learning, the process of opening-up needs to be carefully managed and paced. An "in-one-fell-swoop" opening-up will not bring long-term growth and prosperity to an economy. The Chinese government's management of opening up is mainly reflected in three aspects**. First, the government has always focused on cultivating the endogenous growth capacity of the economy.** The Chinese government (especially the central government) focuses on guiding the transformation and upgrading of the real economy, while fully recognizing the far-reaching impact of learning in the opening up. As a result, the central government has issued a series of policies to encourage foreign investment, with profound political courage and determination to continuously promote opening up, and maintain a dynamic balance between moderate protection of domestic enterprises and the introduction of external competition. **Second, the government needs to work hard to absorb the shocks of opening up**. **Third, borrowing in foreign exchange and capital flows need to be subtly guided and constrained.** Since the initial influx of foreign capital, the Chinese government has attached great importance to the repayment of foreign debts. The foreign exchange has been carefully allocated as a strategic resource, and the exchange rate policy has been carefully formulated to avoid any balance of payment crisis.

I. Stylized facts

In the past 40 years of reform and opening up, China has made efforts to enhance the opening up of China's economy through continuous deepening of reforms and has embarked on a smooth, orderly and managed road to opening up. In the 40 years of practice in opening up, Chinese enterprises, laborers and governments have successfully responded to the tremendous impact caused by the opening up to the Chinese economy and achieved structural upgrading of industries in the opening up, established and improved the market economy system, and achieved the strategic objective of integration of its economy into the wider world. As the world's largest developing country and the largest transitional economy, China promotes reform through opening up, promotes opening up through reform and, relying on borrowing, absorption and innovation, achieves synergy of its low labor cost, scale advantage, land and other resources in combination of international capital and technology, which has rapidly formed huge production capacity and promoted economic growth.

The rapidly growing Chinese economy in the opening up has also made important contributions to the development of the world economy. After 40 years of reform and opening up, China has become the world's largest consumer market. Foreign businessmen have obtained a large number of business opportunities in China, such as cross-border investment and entering the Chinese market. Enterprises from all countries have fully shared the great opportunities associated with China's economic development in their economic exchanges with China. China's opening up to the outside world has played an important role in stimulating global economic growth and promoting economic structural upgrading. At the same time, with the deepening of economic globalization and the prevalence of international production, the scale advantage of China's manufacturing industry has gradually become prominent, showing strong supporting capacity for parts processing, production and assembly, which also drives down the costs of global manufacturing. The continuous reduction of costs has promoted competition within industries and improved the economic welfare of consumers around the world.

1. The Chinese economy has been integrated into the world and has achieved industrial upgrading in the process of opening up

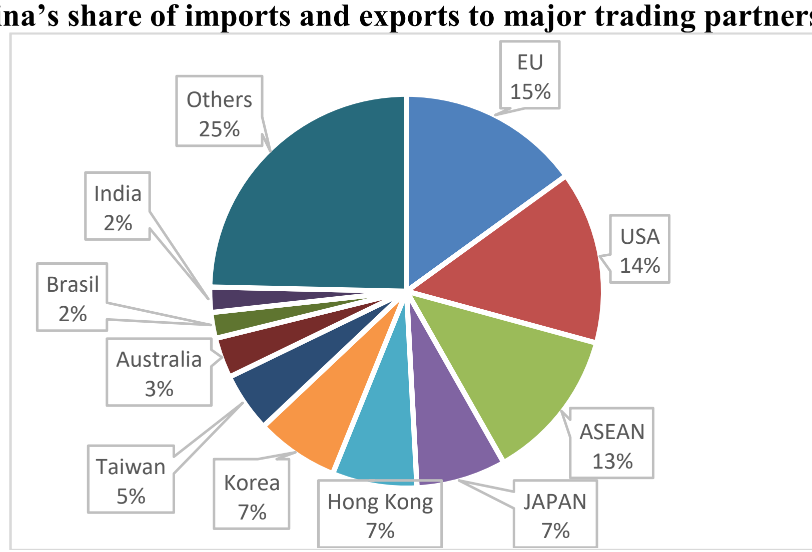
(1) The Chinese economy has been integrated into the global economic system

In the great historical process of China's reform and opening up, foreign trade and foreign direct investment (FDI) have always played an important role. Over the past 40 years, China has worked hard to promote the reform of the foreign trade system, to actively integrate into the global economy, to achieve the historical growth of the scale of international trade and FDI, and become the world's largest country in terms of goods trade and the second largest destination for foreign direct investment, creating a miracle in the history of world economic development.

The total volume of trade has soared. In the 40 years of reform and opening up, the total import and export volume of China's goods has increased from US$20.64 billion in 1978 to US$4.1 trillion in 2017, an increase of 197 times. The average annual growth rate has reached 14.5%, nearly doubling every five years. China has therefore become the world's largest trading nation. In 1978, China's exports of goods accounted for less than 1% of the world market. By 2017, this share had grown staggeringly to 12.8%, making it the world's largest exporter. As regards imports, China's imports accounted for 10.2% of the world market share in 2017, second only to the United States.[1]

The market covers the whole world. Based on the data of 2017, after 40 years of reform and opening up, China's trading partners have grown from 45 in the late 1970s to 231[2]; from the perspective of market distribution, the EU, the US, ASEAN, Japan and BRIC countries are currently China's main trading partners, of which imports and exports to the EU and the United States account for 29.3%[3] of China's total import and export volume. From the perspective of the development trend of various markets, China and emerging market countries in recent years, along the "Belt and Road" countries Trade continued to grow rapidly. For example, ASEAN's share of China's export market increased from 7.0% in 2000 to 12.5% in 2017, and the share of Africa had increased from 2.0% in 2000 to 4.1%[4] in 2017.

Chart 1 China's share of imports and exports to major trading partners in 2017



Source: CEIC database, ACCEPT calculation

[1] The above import and export data are from the World Trade Organization (WTO). China's exports of goods exceeded Germany for the first time in 2009, making China the world's largest exporter.
[2] The data source is IMF Direction of Trade Statistics.
[3] General Administration of Customs data of 2017.
[4] The source of data is the National Bureau of Statistics.

The largest developing country attracting foreign capital. The top four countries or regions in terms of global FDI inflows in 2017 were the United States, China, Hong Kong SAR, and Brazil. Against the background of a 23% decline in global FDI in 2017, China's inbound foreign investment continued to grow nonetheless, accounting for 9.53% of the global FDI inflow, ranking second again in the world's largest foreign direct investment destinations, surpassing the third-ranked Hong Kong SAR by US$32 billion (1.3 times of Hong Kong SAR, China), and surpassing the fourth-ranked Brazil by US$76.3 billion (2.2 times of Brazil)[5]. As of 2017, the cumulative global FDI was US$31.52 trillion, and the cumulative FDI flowing into China was US$1.49 trillion, accounting for 4.73% of the global cumulative FDI, ranking fourth in the world. Comparing the cumulative FDI with the top four countries and regions, China's cumulative inbound FDI is equivalent to 19.1%, 75.8% and 95.4%[6] of those of the United States, Hong Kong SAR, China, and the United Kingdom respectively.

The "hub" of manufacturing and service exports in global value chains. After 40 years of reform and opening up, China's manufacturing and service industries' participation in the global value chain has deepened, and it has steadily climbed upward the global value chain, relying on supporting capabilities, market and technological innovation capabilities to serve the global economic subjects. From the development trend of the past two decades, the international competitive advantage of China's labor-intensive industries has begun to gradually decline, while the international competitiveness of capital and technology-intensive manufacturing has increased significantly. China has become the world's largest supplier of intermediate goods, playing a key role of "hub"[7] in the global value chain.

Chinese multinational companies have stood out in global competition. By the end of 2016, a total of 24,000 Chinese-invested enterprises had established 37,000 foreign direct investment enterprises abroad. At the end of the year, the total number of employees employed by these overseas enterprises was 2.865 million, of which 1.343 million were foreigners. The total amount of taxes paid by the Chinese companies invested in domestic and overseas countries (regions) was nearly US$30 billion[8]. In terms of industry

[5] United Nations Organization for Trade and Development (UNCATD), 2018: *World Investment Report 2018,* https://unctad.org/en/PublicationsLibrary/wir2018_overview_ch.pdf [2018-11-15]; Ministry of Commerce, National Statistics of the People's Republic of China Bureau, State Administration of Foreign Exchange, 2017: *2016 China Foreign Direct Investment Statistics Bulletin*, http://www.mofcom.gov.cn/article/tongjiziliao/dgzz/201803/20180302722851.shtml [2018-11-15] Ministry of Commerce, National Bureau of Statistics, State Administration of Foreign Exchange, 2018: *2017 China Foreign Direct Investment Statistics Bulletin*, http://www.mofcom.gov.cn/article/tongjiziliao/dgzz/201809/20180902791492 .shtml [2018-11-15];

[6] United Nations Organization for Trade and Development (UNCATD), 2018: *World Investment Report 2018,* https://unctad.org/en/PublicationsLibrary/wir2018_overview_ch.pdf [2018-11-15]; the People's Republic of China

[7] Zhang Huiqing and Zhai Xiaoqiang, 2018: *Characteristics and Insights of China's Participation in Global Value Chains*, *Quantitative Economics and Technology Economics*, No. 1, 2018, pp. 3-22.

[8] Ministry of Commerce of the People's Republic of China, 2017: *China Foreign Investment Cooperation Development Report 2017*, http://fec.mofcom.gov.cn/article/tzhzcj/tzhz/upload/zgdwtzhzfzbg2017.pdf [2018-11-15]

distribution, the manufacturing and wholesale and retail industries are the most developed industries for foreign direct investment in China, accounting for about 60% of the total investment enterprises. From the perspective of traffic, state-owned enterprises directly under the central government are no longer the main force for foreign direct investment, accounting for only 0.7% of the total number; geographically, enterprises established in Asia account for 55.8% of the total number of foreign-invested enterprises, followed by those established in North America and Europe, accounting for 15.2% and 11.3% respectively.

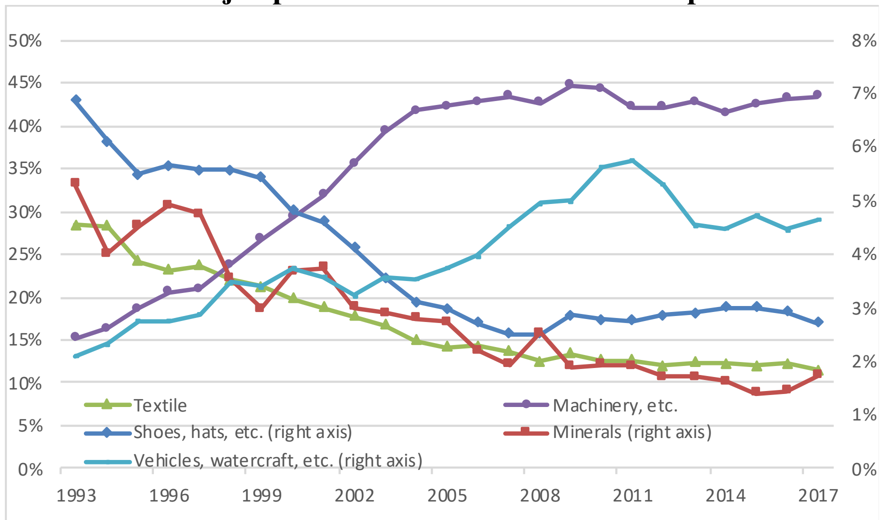
(2) China's industrial upgrading achieved in the process of opening up

From the literature on FDI spillover effects, the technology brought by foreign companies may bring about negative extrusion effects[9], as well as positive upgrade effects. For China, its per capita GDP in 2017 was only 27%[10] of the US. In the past 40 years, especially during the early stage of reform and opening up, there was a huge technological gap between China and the developed countries such as the United States. In the process of trade and cooperative management with developed countries, there was a significant spillover effect of technology.

In just four decades, the structures of the Chinese economy have undergone profound changes. In the 1980s, the structure of China's export goods underwent the transformation from primary products to industrial manufactured products. In the 1990s, it underwent the transformation from light textile products to mechanical and electrical products. **Since the beginning of the 21st century, the percentage of high-tech products represented by electronics and information technology has continued to grow. From 1985 to 2017, China's exports of mechanical and electrical products had increased from US$1.68 billion to US$1.32 trillion, an increase of 785 times or an average annual growth rate of 23.2%, and the share of the global market increased from negligible to more than 17%.** Exports accounted for 58.4% of the country's total exports. In the same period, the proportion of high-tech products in China's exports increased from 2% to 28.8%[11].

[9] Javorcik, BS., *Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages.* American economic review 94, no. 3 (2004): 605-627.
[10] Calculated according to purchasing power parity.
[11] The data source is the CEIC database.

Chart 2 Major products' shares of China's exports



Source: CEIC database, ACCEPT calculation

The reform and opening up since 1978 has opened China's closed door. The first Sino-foreign joint venture was set up in 1980[12]. Currently there are 505,000 foreign-invested enterprises[13]. They have not only created value and provided employment in China through their own production activities but also acted as a role model in demonstrating technological innovation, market management and institutional innovation to their Chinese counterparts. **Foreign-invested enterprises usually bring new technologies and novel organizational forms, which encourages potential domestic entrepreneurs to learn from and to promote entrepreneurship. At the same time, this demonstrative role also helps domestic entrepreneurs to improve existing products and increase market competition, promoting industrial upgrading**[14]. In fact, Liu et al. (2014) used the micro-data from corporate surveys to find that startups with management experience in foreign-invested enterprises have better design of governance in terms of employee incentives and legal arbitration, and consider it to be an important channel for FDI spillovers[15].

For example, Chinese construction machinery is an industry that has grown up in the opening up and has achieved production upgrades. After years of study, borrowing, absorption and independent innovation, China's construction machinery has achieved a dominant position, its self-sufficiency rate of construction machinery products has greatly

---

[12] On May 3, 1980, Beijing Aviation Food Co., Ltd. was established. This is the first joint venture in China. The registration number of the State Administration for Industry and Commerce is "001", and people aptly called it "Tianzi No.1". For details, please refer to: Li Jie, 2018: *Beijing Air Food: "No. 001" Joint Venture, Unforgettable "Fresh Air"*, Xinhuanet reprinted from *People's Daily Overseas Edition*, http://www.xinhuanet.com/ Fortune/2018-08/14/c_1123264464.htm [2018-11-15].

[13] Data are from the National Bureau of Statistics data for "number of foreign-invested enterprises (households)" as of the end of 2016.

[14] Li Yan and Liu Shichang, 2018: *Opening up and Industrial Upgrading in the Context of Global Value Chains – An Empirical Study Based on Quasi-Nature Experiments*, China Soft Science, No. 8, 2018, pp. 165-174.

[15] Liu, Q., Lu, Ru., Zhang, C., 2017, *Entrepreneurship and spillovers from multinationals: Evidence from Chinese private firms*, *China Economic Review*, Volume 29, PP 95-106.

improved, and the quality of global service has been greatly improved. By 2016, China's construction machinery industry exported goods worth US$17 billion. Ten engineering machinery enterprises have made their way to the list of world top 50 strongest in engineering machinery, and their technological innovation capabilities have been continuously improved[16].

In addition to the demonstrative role, foreign-invested enterprises in China have also driven China's related supporting enterprises to go out through supply chain expansion, and promoted enterprise development and industrial upgrading in the process of joining the global industrial chain and integrating into the global market. For example, Fuyao Glass, Yanfeng Decoration, and Shanghai Changhui have all invested and built factories in the United States under the leadership of GM and Volkswagen, and provided R&D and production of supporting components for their own vehicle customers in the United States[17]. China's parts and components companies have followed the investment of foreign-invested manufacturers in mature markets, providing favorable conditions for further in-depth participation in vehicle design and development, strengthening supply efficiency and market service capabilities. Chinese component companies have also improved themselves in this process. The competitiveness of Chinese enterprises has gradually improved – they built brand influence and achieved industrial upgrading.

In the process of opening up, Chinese enterprises have entered high value-added industries and improved their international competitiveness through acquisitions of high-quality assets in developed countries and learning of their advanced management models. In this process, Chinese investment also injected a strong impetus into the economic development of the host country and created a large number of jobs. For example, Northern Heavy Industries successfully acquired Germany's Wirth Holding / France's NFM, which enabled Northern Heavy Industries to gain huge technological advantages in TBM manufacturing and help China's TBM industry achieve industrial upgrading[18]; the acquisition of Australian architectural firm John Holland by China Communications Construction Co., Ltd. significantly improved the latter's competitiveness in infrastructure

[16] From 2001 to 2016, China's construction machinery industry won one first prize of National Science and Technology Progress Award, four second prizes; two second prizes of National Technology Invention Award; one top prize for industrial science and technology, 25 first prizes, 101 second prizes, and 174 third prizes. For details, please refer to the Ministry of Commerce of the People's Republic of China, 2017: *China Foreign Investment Cooperation Development Report 2017*, http://fec.mofcom.gov.cn/article/tzhzcj/tzhz/upload/zgdwtzhzfzbg2017.pdf [2018-11-15] .

[17] ? ? ? After the integration of the interior business of Yanfeng's and Johnson Controls' interior business, it became the world's largest supplier of interior parts, with plants in Kansas and Tennessee, USA, providing interior products for some models of GM and Volkswagen.

[18] Jiang Min, 2007: *North Heavy Industry acquired German Wirth Holding Company / French NFM Company*, http://finance.people.com.cn/GB/6181939.html [2018-11-15].

upstream design[19]; COFCO acquired the equity of international food trading giant Nidera to enhance its position in the international food trade value chain[20].

At the same time, in the past four decades, Chinese government officials, entrepreneurs, students, and workers have continued to study and absorb nutrients around the world. Beginning with the four high-level delegations of the Central Committee of the Communist Party of China in 1978, a batch of delegations and students went abroad, bringing back the advanced concepts of economic and social development in the world with sensitiveness, eagerness, and urgency. In combination with China's actual national conditions, it is put into practice in economic development and social reform. **Since the reform and opening up to the end of 2017, a total of 5,194,900 persons have gone abroad to study, of which 3,740,800 have completed their studies, and 3,132,000 have opted to return to China after completing their studies, accounting for 83.73%**[21] of those who have obtained degrees. In this process of learning, borrowing, absorbing, and innovating, the Chinese people have devoted themselves to the tide of economic globalization and have continuously taken a solid step in the times.

2. China's process of opening up has also benefited the world economy

Since the reform and opening up, China's low-cost and scale-based production factors have been combined with international capital and technology to rapidly form a strong production capacity, deeply integrated into the global industrial and value chains, and promote world economic growth. China has been an important contributor to the world's economic development. The opened up Chinese market has not only become the world's largest consumer market, but also the second largest FDI destination country in the world after the United States. The companies which have invested in China have shared huge growth dividends in the past when China's economy grew rapidly. **According to statistics, in the 16 years after China's accession to the WTO alone, the total cumulative profits of foreign-invested enterprises and enterprises invested by businessmen from Hong Kong, Macao and Taiwanese exceeded RMB15.57 trillion (close to the GDP of the UK in 2017 denominated in RMB)[22].** At the same time, with the deepening of economic globalization and value chain internationalization, **the scale advantage of China's basic manufacturing industries has gradually become prominent, showing strong supporting capabilities and competitiveness in parts processing, production and**

[19] Jamie Smith, Mi Qiang, 2014: *China Communications Group Acquires Australian Builders for A$1.15 Billion*, Financial Times Chinese Website, http://www.ftchinese.com/story/001059633?full=y&archive [2018 -11-15]

[20] China Securities Network, 2016: *COFCO acquires the entire equity of Nidera*, http://news.cnstock.com/news,bwkx-201608-3881870.htm [2018-11-15].

[21] Zhang Shuo, 2018: *Number of Chinese students studying abroad last year broke 600,000*, *People's Daily Overseas Edition*, 02th edition, March 31, 2018.

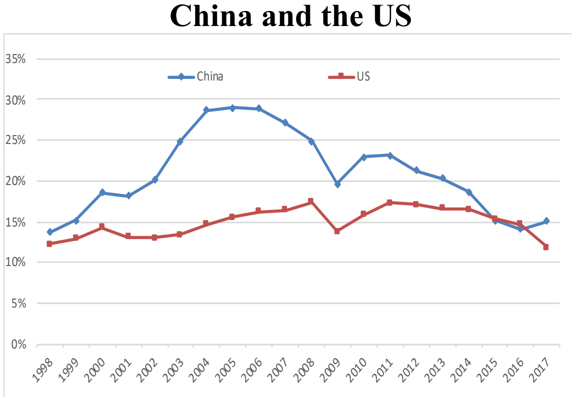
[22] Referring to the 16 years from 2001 to 2016, and the total profit data come from the National Bureau of Statistics of China.

assembly. These have consistently driven down the production costs of the world's manufacturing industries, promoted competition in the industries, and improved the economic welfare of consumers around the world.

(1) Direct contribution of economic and trade cooperation

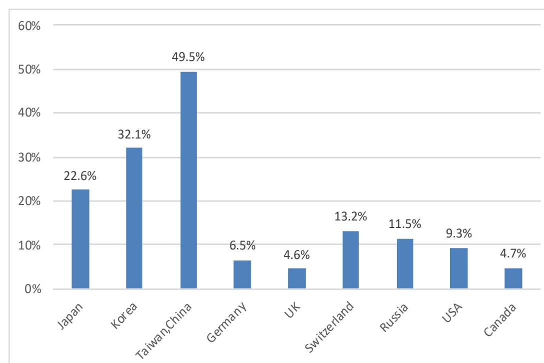
From the perspective of trade, the developing Chinese economy has become the world's largest sales market of goods. In 2017, China's total import and export of goods reached US$4.1 trillion, ranked first in the world; the total import and export of service trade reached US$695.68 billion, ranked second in the world[23]. In the 40 years of reform and opening up, China imported a total of RMB21.78 trillion worth of goods from abroad[24]. It has become the largest trading partner of more than 120 countries and regions in the world. During the 20 years since accession to WTO, China has continuously widened its opening up to the outside world and actively integrated itself into the economic globalization, and has become an important engine for world economic growth.

Chart 3 Value of Percentages of Sino-US imports as a percentage ofin their GDP, China and the US



Source: CEIC database, authors' calculation

Chart 4 Percentages of exports to China in their total exports



Source: CEIC database, authors' calculation

The opening of the Chinese market has created the largest single market for the world. In recent years, with the adjustment of China's economic structure and industrial upgrading, the demand of the Chinese economy by the world market has gradually migrated upstream. As regards the categories of China's imported products, the proportion of mechanical and electrical products and high-tech products imported from China has steadily increased, which has brought growth momentum in particular to developed countries in the high-end industrial chain complementary to China's industries. As regards

[23] Data from the World Trade Organization (WTO).
[24] Data from the National Bureau of Statistics of China.

the regional distribution of China's imported products, Asia has the highest proportion, followed by the European Union and North America.

In the 40 years of reform and opening up, the developing Chinese economy has driven the export market of trading partners and shared the benefits of China's economic growth in the process of trade. Taking the data of 2016 as an example, the products sold to China accounted for 22.59% of Japan's total exports in the year. The percentages of Korea, Taiwan, Switzerland, Russia, the United States, Germany, Canada, and the United Kingdom were 32.09%, 49.53%, 12.15 %, 11.45%, 9.27%, 6.45%, 4.7%, and 4.57% respectively. **According to estimates, the United States, which actively provoked trade frictions, boosted its GDP by 0.8 percentage point in 2015; US exports to China and China-US two-way investment contributed** US$216 billion to US gross domestic product, increasing the economic growth rate in the US by 1.2 percentage points[25]; even in terms of agricultural products alone, China is a top five trade partners of the 46 federal states in the United States, and on average an American farmer exports more than US$10,000 of agricultural products to China annually; in 2016, China is a top five service trading partners of all 50 states in the United States[26];

(2) Chinese profits of multinational corporations

In the 40 years of reform and opening up, the opened up Chinese market has further shared the economic growth benefits with the world through transnational investment. **Investors from abroad, Hong Kong SAR, Macao SAR and Taiwan have obtained a huge market and reaped rich profits from the "growth miracle" of China's economy.** Since the reform and opening up 40 years ago, foreign direct investment (FDI) in China has continued to expand. Especially after joining the WTO, the scale of FDI has increased from US$46.88 billion in 2001 to US$136.32 billion in 2017, with an average annual growth rate of 6.9%, ranked second globally and first among developing countries[27]; the number of foreign-invested and Hong Kong SAR, Macao SAR and Taiwan-invested industrial enterprises increased from 28,400 before joining the WTO to 59,600 in 2016; the paid-in capital increased from US$0.91 trillion to US$5.23 trillion in 2016. **In the period of 2001-2016, the cumulative profits of foreign-invested and Hong Kong SAR, Macao SAR and Taiwan-invested industrial enterprises exceeded US$15.57 trillion[28].** In the context of economic globalization, China has made tremendous contributions to global economic growth through open markets and mutual benefit.

---

[25] Press Office of the People's Republic of China, 2018: *Facts and China's Position on China-US Economic and Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11-14]
[26] US China Business Council, 2018, US-China Business Council State Export Report, https://www.uschina.org/sites/default/files/final_uscbc_state_report_2018_1.pdf [2018-11-15]
[27] Data from the Ministry of Commerce of China.
[28] Referring to the16 years from 2001 to 2016, and the total profit data come from the National Bureau of Statistics of China.

Taking the automobile manufacturing industry as an example, since the establishment of Sino-German joint venture Shanghai Volkswagen Automotive Co., Ltd. in 1984, nearly 3,000 foreign-invested enterprises and Hong Kong SAR, Macao SAR and Taiwan-invested enterprises have been set up by automobile manufacturers, including GM, BMW, Mercedes-Benz and Toyota. **In terms of the sales revenues in 2015, foreign-invested enterprises and enterprises invested by Hong Kong SAR, Macao SAR and Taiwan investors accounted for 47.50% of the whole industry, nearly half of the total[29]. In terms of sales volume, the sales of joint-venture vehicles accounted for more than 60% of the market share** (in 2017, more than 24 million vehicles were sold in China, of which the sales of German, Japanese, American, Korean and French brands were 5.4 million, 4.55 million, 3.06 million, 1.2 million and 485,000 respectively). The top three automakers in the United States have a total profit of US$7.44 billion in joint ventures in China in 2015[30]. General Motors alone has ten joint ventures in China, and its production in China accounted for 40% of its global production in 2017; in 2017, BMW sold 594,400 vehicles in China, accounting for 24.13% of its global sales; BMW Brilliance, a joint venture set up by BMW in China, sold 366,500 vehicles in 2017 and realized profits of RMB10.475 billion in the year. Since its establishment 15 years ago, BMW Brilliance has an aggregate sale of more than 1, 956,800 vehicles in China[31]. In contrast, although some people in the United States believe that vehicles of foreign brands strongly impact the domestic market, the market share of GM, Chrysler and Ford in the domestic market reached 68% in 2000 and stood at 45% even in 2014[32].

In recent years, with the upgrading of China’s automobile consumer market and the steady improvement of the domestic business environment, multinational automakers who have made favorable profits from the development of China’s auto market have increased their investment in China. Taking BMW (China) as an example, in May 2018, it announced that it would enter cooperation with Great Wall Motor and would invest RMB5.1 billion to build a pure electric MINI car in Jiangsu. In October, it announced that it would continue to cooperate with Brilliance Auto and invest RMB30 billion in Shenyang Tiexi to build the Phase III Project of the Tiexi Plant.

[29] According to the data of China Association of Automobile Manufacturers in 2015, there were 13,431 enterprises in China's automobile manufacturing industry, including 131 Chinese enterprises, 78 collective enterprises, 53 contractual stock enterprises, 334 joint-stock enterprises, 6,790 private enterprises, 2,888 enterprises invested by foreign businessmen and businessmen from Hong Kong, Macao, and Taiwan.

[30] Press Office of the People's Republic of China, 2018: *Facts and China’s Position on Sino-US Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11-14].

[31] The above includes sales data for BMW, MINI and Rolls Royce. The data come from the BMW Group and Brilliance Group Annual Report. BMW Brilliance set up production in Shenyang, Liaoning, China in 2003. Currently, it has two factories in Tiexi and Dadong in Shenyang. BMW Brilliance has 50% investment in each of the Brilliance Group and BMW (China).

[32] Kim P., 2014, *The Big Three aren't so big anymore*, CBSNews Website cites data from IHS, https://www.cbsnews.com/news/the-big-three-arent-so-big-anymore/ [2018-11-18].

In the 40 years of reform and opening up, China in development has become an important market and profit growth point for high-tech enterprises and service firms in developed countries. On this issue, the Ministry of Commerce issued *The Facts and China's Position on China-US Trade Friction*[33], wherein there is a detailed explanation: "Qualcomm's income from chip sales and patent royalties in China accounted for 57% of its total revenue. Intel's revenues in China (including the Hong Kong region) accounted for 23.6% of its total revenue. In the FY 2017, revenues from Greater China accounted for 19.5% of the Apple Inc. total; by January 2017, 13 American banks had subsidiaries or branches and ten American insurance companies had insurance firms in China. Goldman Sachs, American Express, Bank of America, MetLife and other American financial institutions have reaped handsome returns from their strategic investment in Chinese financial institutions; according to China Securities Regulatory Commission, American investment banks were lead underwriters or co-lead underwriters for 70% of the funds raised by Chinese companies in their overseas IPOs and refinancing. US law firms have set up about 120 offices in China; trade and economic cooperation has created a large number of jobs in the US. According to a US-China Business Council estimate, in 2015, US exports to China and US-China two-way investment supported 2.6 million jobs in America. Specifically, Chinese investment covered 46 states of the US, generating for the US more than 140,000 jobs, most of which are in manufacturing."

(3) Reduce manufacturing costs and promote market competition

In the process of opening up to the outside world and integrating into the world economy, the Chinese economy has unleashed tremendous competitiveness. **Part of the competitiveness of the Chinese economy comes from the cost advantage of production factors such as labor and land, and more importantly from the scale effect of Chinese manufacturing.** Taking smart phones parts as an example, a smart phone need more than 30 micro-screws (nuts). The manufacturers of these precision parts are mainly concentrated in the Pearl River Delta and the Yangtze River Delta. The industry is mainly comprised of 3-4 larger Tier 1 supplier and more than 100 smaller Tier 2 suppliers. Take Shanghai Dedao Heshou Precision Machinery Manufacturing Co., Ltd. as an example. As a secondary supplier of collaborative production, its production costs cannot be sufficiently reduced to achieve profitability, unless the daily output reaches the scale of 2 million micro-screws (nuts), on the premise of assured production accuracy and non-magnetic specifications. For another example, the production costs of disposable lighters[34] and perfume bottle nozzles have been reduced precisely because Chinese companies, relying on economies of scale, have joined the world market. Suzhou producers supply the world with 90% of all stable and low-priced perfumes bottle nozzles. Perfume bottle nozzles for Dior, Chanel, and other famous brands are purchased in Suzhou. In the field of basic manufacturing, the scale effect

---

[33] Press Office of the People's Republic of China, 2018: *Facts and China's Position on China-US Economic and Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11-14].

[34] A disposable lighter sold at RMB 1 consists of 6-7 parts.

advantage of the Chinese economy has greatly enhanced the manufacturing capacity of parts and components, thereby significantly reducing the production costs of the manufacturing industry, promoting market competition, and further entrenching the advantage of China's manufacturing industry.

In economic and trade cooperation with China, multinationals from developed countries have enhanced their international competitiveness by integrating the advantages of both countries. Apple designs and develops mobile phones in the United States, has them assembled and manufactured in China, and sells them in the global market. **Although some mercantilist leaders, represented by President Trump, want manufacturing to return to the United States, it is estimated that if all the assembled production is done in the United States, the production cost of Apple's mobile phones will increase by 37%[35]**. As the theory of international trade has it, as a whole, developed countries have suffered no loss in the division of labor with China. **China relies on strong supporting capabilities to undertake production links in the global industrial chain, enabling developed countries (especially the United States) to focus on design, market research and other fields, and continuously upgrade in high value-added fields such as manufacturing and service industries to further improve their national strength.**

China's opening up has promoted global competition and promoted industrial upgrading in developed countries. Since 2001, after earnestly fulfilling its commitment to join the World Trade Organization, China has also taken the initiative to expand market opening and promote market competition through unilateral tax reduction. Upon joining the World Trade Organization, the Chinese government has made great efforts to promote full integration into the international economic system. Since 2001, the Chinese central government has cleared more than 2,300 laws, regulations and ministerial regulations, and local governments have cleared more than 190,000 local policies and regulations; the overall tariff level dropped from 15.3% in 2001 to 9.8% in 2015, when the trade-weighted average tariff rate fell to 4.4%, significantly lower than emerging economies and developing countries such as South Korea, India, and Indonesia and close to the US (2.4%) and the European Union (3%); among the 160 service sub-sectors defined by the WTO, China has promised to open 100 of them, falling slightly short of 108, the average number of opened sub-sectors by the developed countries members. Today, China has improved its business environment and improved its services through 12 free trade zones, which can still be regarded as its efforts to draw upon foreign experiences[36].

[35] Goldman Sachs Equity Research, 2017, *Made in the USA ... or China?*, March 26, 2017.

[36] Based on the Press Office of the People's Republic of China, 2018: *White Paper on China and the World Trade Organization*, http://www.mofcom.gov.cn/article/i/jyjl/l/201808/20180802773208.shtml [2018-11- 14]; Press Office of the People's Republic of China, 2018: *Facts and China's Position on China-US Economic and Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11- 14].

(4) Contributing to the Increase of global consumers' welfare

China's opening up has brought tangible benefits to consumers around the world. International trade enriches consumer choices, reduces the cost of living, and enhances the actual purchasing power of people around the world, especially low- and middle-income groups. **The US-China Business Council and the Oxford Research Institute have jointly found that, if there had been no trade with China, the average annual household expenditure of American families would have increased by US$850, or 1.5% of the average annual household income**[37].

China's opening up has not only promoted global economic growth and improved consumer welfare, but also reduced global inflation. As it is cited in *The Facts and China's Position on China-US Trade Friction*[38], the estimates from the joint study of the US-China Trade National Committee and the Oxford Research Institute show that "Value-for-money products from China drove down prices for American consumers, and in 2015 for example, reduced the consumer price index by 1 to 1.5 percentage points. A low inflation environment has created much room for expansionary macroeconomic policies in the US."

(5) Protectionism in the process of industrialization in the United Kingdom, the United States, and Germany: A comparison

In recent times, there have been some doubts even accusations voiced against China in the international arena. Some people from major developed countries such as the United States believe that China's open process is slow and has taken "advantage" of the world, especially developed countries. **However, if we look at the world and surveying the development history of these major powers, it seems that we will find that this accusation is unfair, because the United Kingdom, the United States, Germany and other big countries have all experienced long periods of "protection" during their industrialization.** This point is explained in detail by Li Daokui et al. (2018)[39].

The United Kingdom strictly protected its own industry before the 1850s. Until repealing the Corn Laws in 1846, and the import tariffs on agricultural products had been very high. Until putting the Navigation Acts to an end in 1849, and the shipping of colonial goods had been restricted to ships owned and made by the United Kingdom or its colonies; trade and tariff restrictions had not been abolished until around 1860. Even Adam Smith agreed to high tariffs regarding industries such as ship building and national defense in *The*

[37] Oxford Economics and US-China Business Council, 2017, *Understanding the US-China Trade Relationship*, https://www.uschina.org/reports/understanding-us-china-trade-relationship [2018-11-15].

[38] Press Office of the People's Republic of China, 2018: *Facts and China's Position on China-US Economic and Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11-14].

[39] Li Daokui, Li Yusha, Zhang Chi, 2018: *How does the great practice of China's economy make important economic contributions? - Analysis and reflection based on the history of economic history and economic thought, Journal of Economics*, 2018 Issue No.5, PP.1-16.

Wealth of Nations.[40]; Moreover, Britain's foreign trade also included a significant amount of colonial trade, and its plundering of the colonies is all too well known[41].

The United States was a more closed market before World War II. In the first 20 years of the 20th century, exports accounted for only 6%-7% of the total national income of the United States, far lower than the level of 20%-30% in Europe during the same period; in 1861, the average tariff rate on imported goods was increased to 47%, which remained above 40% till World War I[42]. In 1930, the Smoot-Hawley Tariff Act went through, which provoked a trade war between the United States and Europe. Both sides suffered losses from the law. The US import and export volume plummeted by more than 50%, aggravating the economic disaster of the Great Depression.

Germany also had a strong protectionist tendency before World War I. In June 1879, Germany introduced a new tariff law, which imposed import duties on leather, paper and other products. The German government adjusted tariffs twice in 1885 and 1887 and the tariff rate of agricultural products in 1887 was five times that of 1879[43].

As a big country with a population of 1.3 billion, China has become a locomotive of the world economy from a poor country in 40 years. Through its deepening reforms, China has continuously promoted the process of opening up to the outside world. While integrating into the world economy, it also shares with the world its historical opportunity of economic development to stimulate global growth and improve global consumer welfare. China has never exported the economic crisis to the world. The sharp contrast between China's "sharing" and "win-win" opening up to the outside world and the "beggar-thy-neighbourneighbor" approach adopted by traditional powers in their developmental history is highly thought-provoking.

3. The Chinese government mitigated the shocks of globalization by helping "Chinese Detroits" to revive

Since the regional and industrial distributions of benefits and costs of opening up are often extremely uneven, damaged industries and regions often suffer enormous pain. As such, the government should coordinate various policy tools to help the relevant economic subject tide over the difficulties. **In the process of opening up, many regions and industries in China have also been greatly affected. Fortunately, the Chinese**

---

40 For details, see Chapter 2 of Book 4 of *The Wealth of Nations*, "*Of Restraints upon the Importation from Foreign Countries of such Goods as can be Produced at Home*".

41 According to Maddison (2007), the total population of the British Empire was 412 million, ten times the population of the British islands. Maddison, A., 2007. The world economy volume 1: A millennial perspective, Academic Foundation, PP.95, 96, 97, 100.

42 Hughes J, Cain L P, 2011, American Economic History, Pearson.

43 Guo Xinshuang, Guo Hongyu, 2014: *Characteristics and Insights of "The German Road in 1914" - Historical Experience of Germany in Dealing with the "Government-Industry" Relationship*, People's Forum, Pre-Academic

government has played an important role in helping related industries, regional enterprises and workers transform themselves, and helping microeconomic subjects to cope with the negative effects of opening up.

The development history of Shenyang, the Chinese Detroit, since the 1990s is a good case in point. After the establishment of the People' Republic in 1945, Shenyang became the vanguard of China's industrial economy with the industrial base built during the Japanese occupation, followed by Soviet aid. **In 1981, the total output value of heavy industry in Liaoning Province ranked first in the country, accounting for 11.5%; the total industrial output value ranked third in the country, only after Shanghai and Jiangsu[44]. Statistics indicates that 37 large enterprises in Tiexi District of Shenyang had created 350 "firsts of the country"**, including the first transformer, the first air compressor, the first automatic electrical switch, the first metal cutting lathe, the first cable steel core aluminum stranded wire, the first industrial valves, the first aircraft tire, etc[45]. The three major machine tool factories in Shenyang (the First Machine Tool, the Third Machine Tool, and the Sino-Czech Friendship) were selected into the "18 Arhats" in the machine tool industry, and won the National Quality Gold Award three times in the 1980s[46]. According to an old leader of Shenyang, Shenyang boasted a complete industrial system, having 146 industries out of 165 in the country. Together with Beijing, Tianjin and Shanghai, Shenyang was a barometer of China's economy. They were collectively dubbed as "Beijing-Tianjin-Shanghai-Shenyang". In the context of unified purchase and marketing, Shenyang's large-scale enterprise products were sold well in China. According to one employee, "unable to buy [the products], certain enterprises were anxious to find people with more power to in order to buy through the backdoor. Sometimes we would squeeze one out from the production line."[47]

In the 1990s, with the opening up, the import tariffs for machine tools in 1994 fell to 9.7%, ahead of schedule, and the tariffs on CNC systems fell to 5%[48]. **With the gradual reduction of tariff barriers in the field of equipment manufacturing, imported equipment has begun to increase in quantity substantially. In 1996, the value of imported metal processing machine tools, valves, motors and generators were 1.57, 1.58 and 2.08 times of those in 1993 respectively[49]**. The imported products brought by the opening have strongly impacted the industrial enterprises in Shenyang. An old employee of Shenyang Machine Tool Plant said in the survey that domestic large

---

[44] China Bureau of Statistics, 1982: *China Statistical Yearbook 1981*, China Statistics Press.

[45] Shenyang Tourism Commission, 2018: *Fuyun Shenyang | The birth of the eldest son of the republic, a place where there are the most "firsts" of new China's industry,* http://www.sohu.com/a/223124363_349299 [2018-11-14].

[46] Shenyang Machine Tool (Group) Co., Ltd., *Our History*, http://www.symg.cn/channels/33.html [2018-11-14].

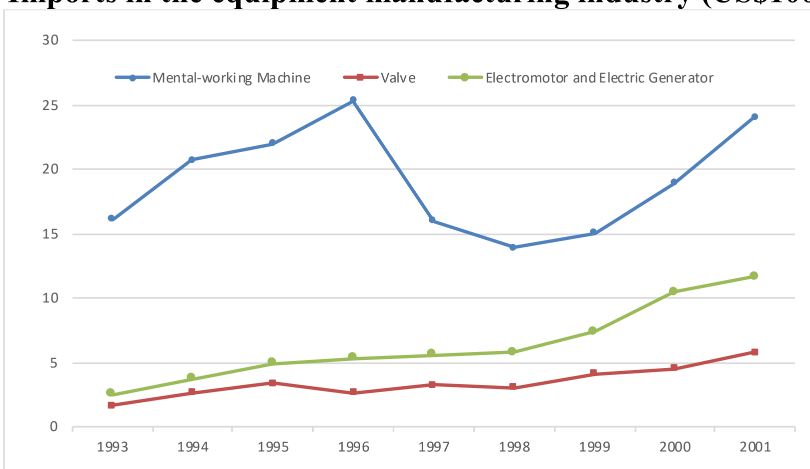
[47] Wang Bo, 2016: *The sometime Golden Rice Bowl now in the quagmire, Shenyang Machine Tool is bailing itself out*, *Chinese Entrepreneur* https://www.sohu.com/a/71893454_355067 [2018-11-14].

[48] Customs Tariff Commission of the State Council of the People's Republic of China, 1994: *China's Import Tariff Rate Adjustment Table (Part 1)*, International Trade, No. 02, 1994, PP. 47-62; State Council Tariff Commission of the State Council, 1994: *China's Import Tariff Rate Adjustment Table (Part 2)*, International Trade, No. 02, 1994, 51-62.

[49] Data are from the CEIC China Economic Database, ACCEPT calculation.

enterprises began to use imported machine tools in large quantities, and the market was severely squeezed. At the same time, with the deepening of the reform of "loan in lieu of grant", the financial cost of those enterprises surged. **Under the combined effect of these factors, Shenyang industrial enterprises began to lose money extensively.** The Sino-Czech Friendship Factory, formerly known as one of the national 18 machine Arhats, with only RMB5,000 available for disposal in 1997, were unable to pay wages for half a year[50]. Wang Tiefeng, former Chairman of Shenyang Heavy Machinery Group, said that at that time, corporate debt was heavy, the sum of financial debts, operating debts and corporate bonds reached RMB1.5 billion, and wages and debts of employees exceeded RMB100 million. In 1997-2001, it was basically impossible to pay full wages to employees. During the most difficult years, actually paid wage was as low as RMB200 per month[51].

Chart 5 Imports in the equipment manufacturing industry (US$100 million)



Source: CEIC Database

While opening up to the outside world has brought difficulties to business operations, it has also brought about a series of social problems. At the end of 1996, 2.06 million people were employed by the state-owned and collective enterprises in Shenyang. By 2000, this figure had fallen to 1.46 million, with nearly 600,000worked laid off.**[52]** The Tiexi District, an area of 700,000 residents with industrial enterprises most concentrated, became a "vacation resort". As mentioned above, under the traditional system, employees of state-owned enterprises earned lower wages and had less savings, with pensions, medical care, and housing covered by the employing enterprises. There was then no mature social insurance system like those in Western countries, and the employees were not well

[50] Wang Bo, 2016: *The sometime Golden Rice Bowl now in the quagmire, Shenyang Machine Tool is bailing itself out*, *Chinese Entrepreneur* https://www.sohu.com/a/71893454_355067 [2018-11-14].
[51] Yan Kai, 2016: *Northeast in Crisis: Why did the cradle of industry become the hometown of the past? Chinese Entrepreneur* http://business.sohu.com/20160422/n445482813.shtml [2018-11-14].
[52] Shenyang Municipal Bureau of Statistics, 2000: *Shenyang Statistical Yearbook (2000)*.

prepared to withstand risks. According to an government official then in charge of social securities in the Municipal Bureau of Finance , many senior workers were bought out of office at a rate of RMB800 per person per year of employment; laid-off workers blocked the government almost every day, and sometimes even blocked the city's railways.

In order to effectively alleviate the enormous impact brought by the opening up to the economy and society, local governments have broken through many difficulties and made every effort to help achieve a soft landing of the economy and provide relief to the people. On the one hand, the government allocated funds from the already-strapped finances to cover the basic security of laid-off workers. In 1990, the city's insurance welfare costs were RMB 709 million. It had increased to RMB 1.87 billion by 1996 and RMB 4.47 billion by 2000, while the city's budgetary income for the year 2000 was merely RMB 6.11 billion[53]. At the same time, the government was working hard to solve the problem of re-employment, such as hiring laid-off workers in the government's public welfare departments and providing VAT discounts for laid-off workers to set up individual enterprises[54]. **On the other hand, the government launched the "Moving East Construction West" Program in Tiexi District, organizing large-scale enterprises to collectively move to the suburbs to vacate the land in the core area of the city for the development of the service industry**. It both created employment and enabled the enterprises to use the gains in land appreciation for technological transformation and upgrading. We learned in our survey that the income from land swap alone reached RMB 26 billion. Today, Tiexi District of Shenyang is clean and tidy, bustling with high-rise buildings and bright nights.

We are familiar with the rise and fall of Detroit, an industrial city of the United States. It is no exaggeration to say that the impact of opening up on the old industrial areas like Shenyang is no less severe than that on Detroit. According to the US Bureau of Labor Statistics (BLS), the highest number of unemployed people in the Detroit metropolitan area during the financial crisis (2009) was 323,000, and the increase in the number of unemployed in the four-year period 2005-2009 was 174,000. One-fourth of the increase in the number of unemployed people in Shenyang in 1996-2000. However, Shenyang did not decline into a "ghost town", in which the government played an important role, which is explained in more detail in the first part of this report.

The Chinese film industry is another example which had come under the pressure of foreign products. At the beginning of opening up to the outside world, China's film industry had a relatively good foundation. There were seven film factories, including Xiamen Fuda, Shantou Gongyuan, Wuxi Aermei, Shanghai Ganguang, Tianjin

---

[53] Shenyang Municipal Bureau of Statistics, 2000: *Shenyang Statistical Yearbook (2000)*.

[54] According to the document *Shen-Guo-Shui-Fa [2003] No. 63*: the starting point for sales of goods is raised from 800 yuan for non-preferential to 5,000 yuan; the starting point for sales of taxable services is raised from 200 yuan for non-preferential to 3,000 yuan; The threshold for paying taxes on a per-time basis is raised from 50 yuan per non-preferential (day) sales to 200 yuan.

Ganguang, Liaoyuan Film and Baoding Lucky, in addition to Kodak and Fujifilm production lines introduced at huge expenses. However, when Chinese companies were busy with technological transformation, Kodak and Fujifilm had already taken the lead in the market. **Fujifilm's price in China was about 50% of its price in Japan, and Kodak's price in China was 30% of its price in the US. The market share of Fujifilm in China was up to 48% at its highest, while that of the domestic film leader, Lucky, was only 20%.** Eventually, the Chinese government approved Kodak's acquisition of the entire Chinese film industry. According to the agreement, the seven companies in China's film industry would all establish joint ventures with Kodak, which is known as the "98 Agreement"[55].

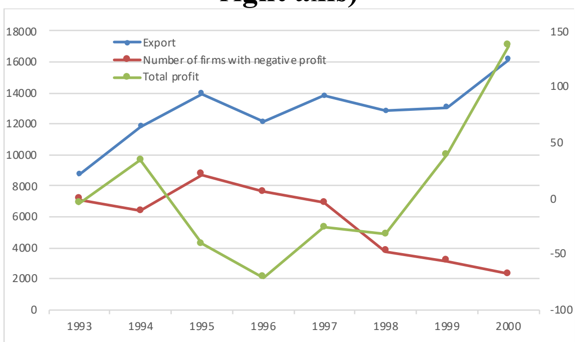
Apart from direct impact of imported goods, the impact of trade friction was also enormous. In the 1980s, the textile industry developed rapidly and the export quantity rose rapidly as well. For a time, various places have invested in the construction of textile factories. **However, in the mid-1990s, European and American countries introduced protection policies to restrict Chinese textile imports.** In his negotiations with the United States. Premier Zhu Rongji said that "in the past few years, due to the discriminatory attitude of the United States, such a large textile exporting country as China has fallen behind Mexico and Canada, and could hardly hold the third place in the world. We destroyed 10 million spindles and 1.2 million people lost their jobs, which caused us great difficulties. Now the most difficult thing for state-owned enterprises is the textile enterprises... Now that the spindles are destroyed, the factories are closed, and we have managed to resettle 1.2 million laid-off workers. But the government has spent a great deal of money on it.[56]"

The following data can corroborate Zhu Rongji's speech. **The United States imposed sanctions on the textile industry three times in 1994-1996.** In 1996, the United States applied the "triple penalties" clause for the first time and cut the quota by US$19 million[57]. **It was during this year that the rapid growth of China's textile exports began to slow down markedly, with the growth rate falling from 35% in 1994 to -17% in 1996.** In 1995, the number of loss-making enterprises in the textile industry reached 8,728, an increase of 37% over 1994; the total profits changed from RMB3.4 billion in 1994 to RMB-7.1 billion in 1996[58]. Despite the existence of many objective disadvantages such as aging equipment and low production efficiency, trade restrictions were undoubtedly an important factor that had caused the textile industry to collapse further.

---

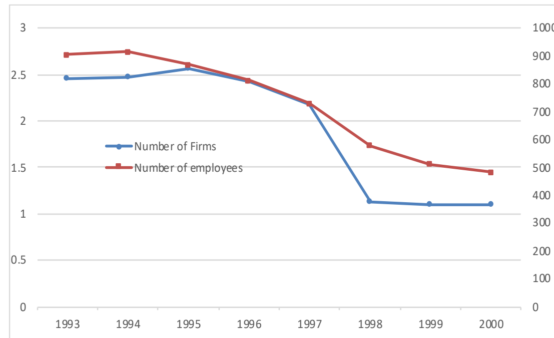
[55] Wang Jiandong, 1998: *Foreign Films Competing for the Chinese Market*, *Contemporary Economy*, No. 5, 1998, PP. 45-46; Fu Qiang, Yuan Weidong, 2008: *1998: Kodak's Billion-Dollar "Gambling" for China*, Sina.com reprinting *First Financial Daily*, https://finance.sina.com.cn/roll/20081215/02105634054.shtml [2018-11-14].
[56] Zhu Rongji, 2011: *Talks with the US Trade Representative Barshefsky*, *The Record of Zhu Rongji's Speech (Volume III)*, People's Publishing House, PP.352-374.
[57] Anonymous, 1996: *The Causes and Impacts of US Sanctions on Textiles, Shandong Foreign Trade and Economics*, No. 11, 1996, PP.33.
[58] Data are from the CEIC database.

Chart 6 Textile industry exports (million US dollars), loss-making enterprises (number), total profit (RMB 100 million, right axis)



Data Source: CEIC, calculated by authors.

Chart 7 Number of enterprises in the textile industry (thousands), number of employees (10,000 people, right axis)



Data Source: CEIC, calculated by authors.

Facing such adversities, the central government was determined to dispose of a number of inefficient enterprises and carry out the "destruction of spindles" operation. The number of enterprises had decreased from 25,700 in 1995 to 11,300 in 1998. The number of employees in the textile industry had decreased from 9.14 million in 1994 to 5.11 million in 1999[59]. The local governments have racked their brains in order to help the laid-off textile workers be re-employed. The relevant departments of Shanghai negotiated with the city's airlines to recruit aircraft attendants from the textile factories. The "textile air hostess" has since made a good story[60]. Subsequently, the government set about restructuring the remaining companies and revitalizing the stock assets. In 2004, the deputy director of the State-owned Assets Supervision and Administration Commission was appointed Chairman and Party Secretary of Shanghai Textile Group, who issued *The Overall Plan for Adjustment, Reform and Development of Shanghai Textile Holdings (Group) Company*. Its operating income in 2016 reached RMB51.4 billion[61].

4. Since 2008, the opening-up process in several industries has slowed down due to various factors

As is described in details in the next section, the Chinese economy undergone substantial adjustment after joining the WTO, and most of the commitments were delivered

[59] Data are from the CEIC database.
[60] Shanghai Local Records Office, 2018: Open Space and Shanghai Local History Website reprinting *Shanghai Zhi·Industry Division·Textile Industry Volume*, http://www.shtong.gov.cn/Newsite/node2 /n189654/n189918/index.html [2018-11-14].
[61] Global Textile Network, 2009: *Textile in 60 Years: Shanghai Textile Industry Old Branch Blooms*, https://www.tnc.com.cn/info/c-001001-d-131048.html [2018-11 -14];; Shanghai Textile Group, 2018: *Group Profile · Enterprise Achievements*, http://www.shangtex.biz/default.shtml [2018-11-14].

before 2007 (China announced officially that all commitments were delivered by 2010). **However, in the Global Financial Crisis China faced large external shocks regarding exports and capital outflow, resulting in risk on growth deceleration. This, combined with vested interests of diversified economic participants, caused the slowing down of China's process of opening up.** In the automobile industry, both tariffs and the share ceiling for foreign investors in joint-ventures had not been lowered until April 2018. Similar conclusions can be drawn for the financial service industry. The share of foreign banks as in newly issued loans exhibits a downward sloping trend from 2010to 2016. Restrictions for foreign invested financial institution, including banks, insurance companies and securities companies, were not substantially modified.

However, following the 19th National Congress of the Chinese Communist Party, the pace of opening up once again accelerated. Top leadership of China, including President Xi Jinping, numerously emphasized the importance of continuously opening up. As is listed in the next section, the trade and investment barriers in many industries, including the automobile industry and financial service industry, have been reduced substantially. Many measures implemented in the 12 Free Trade Zones to utilize the environment for doing business were adopted nation-wide.

II. History Overview

In China, opening up to the outside world is a process of continuous experimentation, exploration, and deepening in practice, rather than a one-stop movement. This process has been going on for more than 40 years and continues today, and will further deepen China's future development. In this section, we briefly review the basic course of opening up and further discuss the characteristics of China's opening up.

We are of the view that China's opening up to the outside world has passed five milestones: the implementation of the opening up policy in 1979, the opening up of the coastal areas in 1984, the development of a firm socialist market economy in 1992, the accession to the World Trade Organization in 2001, and attending the G20 summit following the international financial crisis in 2008.

The process of opening up to the outside world since the 1970s can therefore be divided into the following six stages: (1) import of complete sets from 1970 to 1978; (2) exploration of opening up policy from 1979 to 1983; (3) expanded opening up of the coastal areas in 1984-1991 to optimize business environment for foreign investors; (4) expanding and deepening of the opening up from 1992 to 2000 with the establishment of a market economy system; (5) comprehensive deepening of opening up and integration into the global economic system from 2001 to 2007; (6) participation in global economic governance following the financial crisis to support economic globalization with practical actions.

In the following sections, we will review this process through data, policies, and leaders' speeches, in conjunction with a large number of cases. In this process, it can easily be seen that the study of the world's advanced institutions, knowledge, and ideas runs through the entire process of China's opening up to the outside world, which suggests an important purpose and clue underlying China's opening up to the outside world.

1. Purchase whole sets of equipment from 1970 to 1978

Prior to the official introduction of the reform and opening up policy, the Chinese government had tried to learn advanced production technology by introducing equipment from abroad, and targeted the most developed countries headed by the United States from the very beginning. A prime example of this is the "Four Three Program". On February 5, 1972, the Central Committee of the Communist Party of China and the State Council approved the State Development Planning Commission's *Report on the Importation of Complete Sets of Equipment of Chemical Fiber and Fertilizer Technology*. In November 1972 and January 1973, the State Planning Commission again reported to the State Council to step up the scheme and eventually decided to import US$4.3 billion worth of complete sets of industrial equipment and stand-alone equipment from abroad[62]. Through the "Four Three Program", 26 complete sets of project equipment were imported from developed western countries such as the United States, the Federal Republic of Germany, France, Japan, the Netherlands, Switzerland, and Italy. They were comprised of: 4 sets of large chemical fiber projects with a cumulative investment of RMB6.251 billion, located in Tianjin. Shenyang (Liaoning), Shanghai, Changshou (Sichuan), etc; 3 sets of petrochemical projects, with a total investment of RMB2.718 billion, located in Beijing, Jilin, etc; 13 large chemical fertilizer projects, with an accumulated investment of RMB3.536 billion, located in Hebei, Liaoning, Heilongjiang, Hubei , Hunan, Sichuan, Guizhou, Yunnan, Jiangsu, Anhui, Guangdong, and Shandong; 3 sets of large-scale power station projects, with an accumulated investment of RMB1.372 billion, located in Tianjin, Hebei, and Inner Mongolia; 3 sets of steel projects with a total investment of RMB4.21 billion, located in Hubei, Jiangsu, etc.

During this period, China's industrial production increased from US$33.971 billion in 1970 to US$63.787 billion in 1975, with an average annual growth rate of 13.43%[63]. However, the importation of complete sets of equipment **did not change the overall backwardness of China's industrial capabilities**.

---

[62] People's Daily Online, 1972: *The Central Committee of the Communist Party of China and the State Council approve the report of the State Planning Commission on the import of complete sets of chemical fiber and fertilizer technology equipment*, http://cpc.people.com.cn/GB/64162/64165/77552/77557 /index.html [2018-11-14]

[63] Source: CEIC database, ACCEPT calculation

2. Initial Exploration of opening up from 1979 to 1983

In 1978, the Third Plenary Session of the 11th Central Committee of the Communist Party of China took the economic construction as the focus of the work of the whole party. The sporadic import of the aforementioned equipment had not been able to meet the requirements of rapid economic development. **Since 1979, China has begun to explore the policy of opening up to the outside world, setting up special economic zones, starting to borrow foreign debts, and establishing joint ventures. This is the first milestone of China's opening up process.**

Borrowing foreign debts. In 1979, China began to receive foreign loans. The first loan borrowed by the Chinese government was from the Japanese government. On December 5, 1979, then Japanese Prime Minister Masayoshi Ōhira visited China and pledged to provide China with the first government loan[64]. For the following 40 years, the Japanese government would provide China with a total of about US$45 billion in low-interest and interest-free loans[65]. Meanwhile, **China resumed its representation and membership status of the International Monetary Fund (IMF) and the World Bank (WB)** on April 17, 1980 and May 15, 1980 respectively, beginning to receive loans from the IMF and WB.

Set-up of joint ventures. On July 1, 1979, the Second Session of the Fifth National People's Congress passed the PRC Sino-Foreign Equity Joint Ventures Law, which provided legal support for the establishment of foreign-invested enterprises. On May 1, 1980, the Foreign Investment Management Committee of the People's Republic of China issued *Foreign Capital Approval No.1* document, approving the establishment of China's first joint venture, Beijing Aviation Food Co., Ltd. Beijing Administration Bureau of Civil Aviation Administration of China contributed RMB3 million to this company as capital, holding 51% of the equity and China Aviation Food Limited. represented by Mr. James Tak Wu of Hong Kong contributed RMB2.88 million, holding 49% of the equity[66].

Establishment of special economic zones. On July 15, 1979, the Central Committee of the Communist Party of China and the State Council approved *Report on the Promotion of Foreign Trade and the Acceleration of Economic Development by Leveraging the Advantageous Conditions of Guangdong* and *Report on the Development of Foreign Trade and the Acceleration of the Socialism Construction in Fujian by Using Capital from Overseas Chinese and Foreign Investors*, two reports submitted by the Guangdong

[64] People's Daily Online, 2016: On December 6, 1979, *Deng Xiaoping met with Japanese Prime Minister Masayoshi Ōhira*, http://cpc.people.com.cn/n1/2016/0603/c69113-28410390.html [2018-11- 14].

[65] Phoenix.com, 2018: *A total of 45 billion US dollars: Japan was the country that provided the most assistance to China!*, http://news.ifeng.com/a/20180813/59849110_0.shtml [2018-11-14]; Sohu.com, 2018: *Japan will end its 40-year long government aid to China and China's Ministry of Foreign Affairs comments,* Http://www.sohu.com/a/270787430_115479 [2018-11-14].

[66] Xinhuanet, 2018: *Beijing Air Food: "No. 001" Joint Venture, Unforgettable "Fresh Air"*, http://www.xinhuanet.com/fortune/2018-08/14/c_1123264464.htm [2018- 11-14].

Provincial Committee of the Communist Party of China and the Fujian Provincial Committee of the Communist Party of China respectively, **approving the establishment of pilot scheme of special export zones in Shenzhen, Zhuhai, and Shantou of Guangdong Province and Xiamen of Fujian Province**. On August 13 of the same year, the State Council issued *Regulations on Vigorously Developing Foreign Trade to Increase Foreign Exchange Income*[67]. **Its main purpose was to expand the foreign trade authority of local governments and enterprises, encourage the increase of exports, and manage export zones well. It can be seen that the goal of the special exportation zones at the beginning was to expand foreign trade and exports.** On August 23, 1979, the Central Committee of the Communist Party of China and the State Council formally established **the State Import and Export Management Committee and the State Administration of Foreign Investment**, which were both headed by Comrade Gu Mu, then Vice Premier of the State Council. On August 26, 1980, the Central Committee of the Communist Party of China and the State Council **decided to rename the four special export zones of Shenzhen, Zhuhai, Shantou and Xiamen as special economic zones**. Special economic zones enjoy preferential treatment in terms of investment project approval, foreign trade, and business operations and **preferential policies and flexible measures on taxation, land use, and immigration were applied to foreign investors investing in the special economic zones**. In 1983, in order to promote the development of Hainan, the Central Committee of the Communist Party of China approved *Summary of the Issues Concerning Accelerating the Development and Construction of Hainan Island* and decided to open up Hainan.

Learning from the advanced and developing ourselves were identified as an important goal at the beginning of opening up. As the chief architect of reform and opening up, Deng Xiaoping directly pointed out in his speeches that: "it is necessary to learn from the advanced in order to catch up with advanced.... Learn the advanced science and technology of others. **We not only need to work hard to learn from foreign countries because of the backwardness of our science and technology today, even if our science and technology catch up with the world's advanced level, we must also learn from the strengths of others.**[68]" "Now, if you are building, you have to be more resourceful. You can use foreign capital and technology, and overseas Chinese and ethnic Chinese can come back to set up factories.[69]" At this stage, Chinese leaders were more concerned with learning about science and technology. Ten of Deng Xiaoping's speeches from 1978 to 1979 were related to opening up to the outside world, during which,

[67] Zhang Jinfan, et al., 1992, *The Dictionary of National History of the People's Republic of China*.
[68] Deng Xiaoping, 1994: Speech at the Opening Ceremony of the National Science Conference, *Selected Works of Deng Xiaoping (Volume II)*, pp. 85-100.
[69] Deng Xiaoping, 1994: Liberating the Mind, Seeking Truth from Facts, Seeing Unity and Forward, *Selected Works of Deng Xiaoping (Volume II)*, pp. 140-153

“technology” was mentioned eight times, “funds” four times, “joint ventures” four times, and “exports earned foreign exchange” twice[70].

However, the course of opening up was not always uneventful. Since the decision to open up, voices of opposition and controversy were unceasing. At the same time, due to the lack of management experience, there are also omissions in the government’s policies. Some people exploited the policy loopholes to make profits, leaving the opponents with grounds of accusation. The *Hainan Automobile Smuggling Case* in 1984 is the most representative example. As mentioned above, in 1983, in order to promote the development of Hainan, the Central Committee of the Communist Party of China allowed the Hainan Administrative Region to import goods of short supply according to production needs. However, due to lack of management, the situation quickly went out of control. In the first half of 1984, Hainan imported more than 2,000 vehicles, but it suddenly rose to 13,000 in July. In the following six months, Hainan issued a total of 89,000 automobile import approvals, which gradually escalated into car dealing and smuggling. In just half a year, 872 companies sprang into existence in the island of Hainan. Even the military had a role in the transporting of vehicles out of the island. On the pretext of relocating defense arrangement, the navy used warships to transport vehicles. They changed the name of the vehicles and replaced them with military license plates. After unloading the ship in Zhanjiang, the plates were removed and taken back to Hainan, only to be used for the next batch / voyage. In the face of such chaotic situation, the central government had to take serious corrective measures. According to the investigation data, in the previous year, **Hainan illegally purchased at high prices foreign exchanges totaling US$570 million from 21 provinces and cities and 15 units in the central government. The aggregate amount of loans used by various companies for import was RMB4.21 billion, RMB1 billion more than the total industrial and agricultural production in Hainan in 1984[71]. For a time, there was a strong backlash in public opinions. The voices of dismissing special economic zones and opening up was rampant, and the related process of foreign exchanges also slowed down as a result.**

[70] Deng Xiaoping, 1994: Speech at the Opening Ceremony of the National Science Conference, Implementing the Four Modernizations, Never Seeking Hegemony, Highly Raising the Self-Ideological Banner, Adhering to the Principle of Seeking Truth from Facts, Renovating Enterprises with Advanced Technologies and Management Methods, Implementing an open policy, learning the world's advanced science and technology, liberating the mind, seeking truth from facts, uniting and looking forward, building the role of using foreign capital and playing the role of the original business and industry, adhering to the four basic principles, Opinions on Economic Work, Socialism can also engage in market economy, etc., *Selected Works of Deng Xiaoping (Volume II)*.

[71] Hexun News, 2008: *Lei Yu and 1984 Hainan Automobile Smuggling Incident*, http://news.hexun.com/2008-09-08/108638576.html [2018-11-14]

3. Expanding areas and the fields of opening up from 1984 to 1992

It is precisely in the context of the aforementioned stagnation of the opening up that Comrade Deng Xiaoping first traveled south to Shenzhen, resolutely adhering to the opening up policy and ushering in a new wave of opening up in the coastal areas. On January 24, 1984, Comrade Deng Xiaoping inspected three special economic zones in Shenzhen, Zhuhai and Xiamen. While writing for Shenzhen Special Zone, he said: "Shenzhen's development and experience prove that China's policy of establishing a special economic zone is correct." Deng Xiaoping's inspections calmed down the twists and turns and debates, and promoted opening up to continue while new ways are being explored. At this stage, words such as "persistence in opening up" and "opening up is an imperative" are repeated in Deng Xiaoping's speeches -- "Historical experience and lessons show that opening up is an imperative. Opening up can't hurt us.[72] " "...closed-door construction can't be successful. China's development cannot be separated from the world.... It is also necessary to open up to the outside world and absorb foreign capital and technology to help us develop.... China will also make more contributions to the international economy.[73]" On this basis, China's opening to the outside world accelerated in 1984. In the following five years, China's opened up areas continued to expand, and slogans such as "foreign-oriented economy" and "export-oriented" were proposed and the business environment became even friendlier to foreign investments.

From the opening of the special economic zones to the opening up of the coastal areas. Before 1984, China's opening up was mainly concentrated in the four special economic zones of Shenzhen, Zhuhai, Shantou, and Xiamen, as well as Hainan Island. In 1984, the central government decided to set up economic and technological development zones in 14 cities along the coast. The policies enjoyed by them were basically the same as those of the special economic zones. In 1985, the central government decided to set up opened-up areas along the Yangtze River Delta, the Pearl River Delta, and the Xiamen-Zhangzhou-Quanzhou Triangle Area. The opened-up areas were expanded from point to two-dimensional. According to the State Council's documents, we found that in 1985, a large number of *State Council's approvals for the opening up of the XX region* appeared, and documents of these type run through the process of opening up to the outside world.

Firmly develop manufacturing and foreign-oriented economy. In 1988, the central government approved and forwarded Reply from the State Council on Deepening Reform, Expanding Opening up, and Accelerating Economic Development Requests in Guangdong

---

[72] Deng Xiaoping, 1994: Speech at the Third Plenary Meeting of the Central Advisory Commission, *Selected Works of Deng Xiaoping (Volume III)*, pp. 83-93.
[73] Deng Xiaoping, 1994: Our Grand Goals and Fundamental Policies, *Selected Works of Deng Xiaoping (Volume III)*, pp. 77-80.

Province, and proposed the development of a "export-oriented economy" for the first time. Comrade Gu Mu, who was in charge of the work of the special economic zones, recalled that during the period of 1985-1986, the central government held several meetings to encourage the special economic zones to export. Comrade Jiang Zemin also mentioned in his speech that "opened-up cities should focus on developing an export-oriented economy and give full play to their role as bases and windows in opening up.[74]" In fact, since 1986, the export of special economic zones has made considerable progress. In 1986, the foreign trade exports of the four special zones reached US$1.03 billion, an increase of 27% over the previous year, of which Shenzhen reached US$725 million[75].

Vigorously attracting foreign investment and optimizing the business environment. With the continuous expansion of the opened-up areas, Chinese leaders began to further improve the foreign investment environment and China ushered in the first peak of attracting foreign investment. Comrade Gu Mu recalled: "After the opening up in 1984, the momentum of progress was unprecedented. In 1984 and 1985, 4,925 new foreign-invested enterprises were approved, the foreign investment amount reached US$8.22 billion, and the actual foreign investment was US$1.91 billion. It represented **3.6 times, 1.3 times and 1.9 times respectively of the current five years in terms of the three figures over the two years[76]**" The 10th executive meeting of the State Council passed *Regulations on Encouraging Foreign Investment*[77] in 1988. The document contains 22 rules to further improve foreign business environment. Data show that from 1984 to 1988, China's actual use of foreign capital increased from US$2.866 billion to US$10.226 billion and, from 1988 to 1993, it soared to US$38.96 billion[78].

Toward the end of the 1980s, with the political turmoil, the process of opening up to the outside world slowed down for the second time. At the turn of the spring and summer of 1989, political turmoil occurred in Beijing and other cities, and the skepticism and negative arguments against opening up were once again picked up. Coupled with the attacks and sanctions imposed by the US-led Western forces, China's opening up to the outside world fell into a period of hesitation during 1989-1992.

4. Deepening opening-up with the aim of constructing a market economy from 1992 to 2000

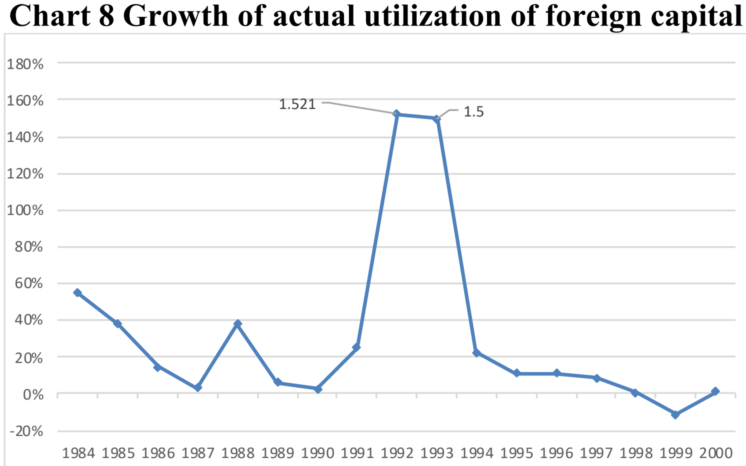
At a time when the opening up of the country was almost stagnant, Comrade Deng Xiaoping once again traveled to the South and strengthened China's determination to open

[74] Jiang Zemin, 2006: Developing Shanghai Pudong New Area, *Selected Works of Jiang Zemin (Volume I),* PP. 35-36.
[75] Gu Mu, 2009: A New Milestone in the Development of Special Economic Zones, *Gu Mu Memoirs*, pp. 359-370.
[76] Gu Mu, 2009:Regulations on Absorbing Foreign Investment Work, *Gu Mu Memoirs*, PP. 371-379.
[77] Ministry of Commerce of the People's Republic of China, 1986: *Regulations on Encouraging Foreign Investment*, http://www.mofcom.gov.cn/article/swfg/swfgbl/201101/20110107352171.shtml [2018-11-14]
[78] Source: CEIC database.

up to the outside world. From January 18 to February 21, 1992, Comrade Deng Xiaoping, who had officially bid farewell to the central leadership position, went to Wuchang, Shenzhen, Zhuhai and Shanghai to inspect and made important talks along the way. “It is not an essential difference between socialism and capitalism whether there is more planning or more market”, “grasp the favorable opportunity, develop ourselves, and the key is to develop the economy”, “development is the hard truth[79]“, and other talks once again injected vitality into the reform and opening up. In 1992, the 14th National Congress of the Communist Party of China officially decided to build a “socialist market economy”, which pointed out the direction for China’s future economic system reform.

Against such background, China’s opening up to the outside world has accelerated, the opening up of the region has been further expanded, the industry sector has been further expanded, trade barriers have been further reduced, and relevant systems have begun to undergo profound changes. **At this stage, China’s foreign economic exchanges have undergone two profound changes. First, the massive influx of foreign capital. In 1992 and 1993, the actual utilization of foreign capital increased by 152.1% and 150.0%. Second, exports began to grow steadily and initially accumulated a certain amount of foreign exchange reserves. Since 1994, China’s trade surplus has been in the black, and foreign exchange reserves have grown steadily since 1993.**

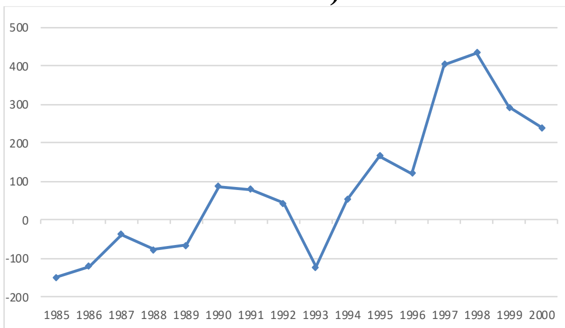
Chart 8 Growth of actual utilization of foreign capital



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

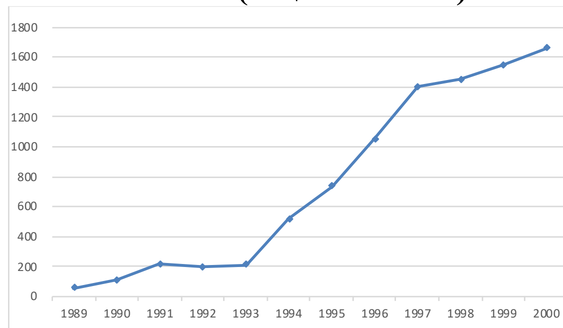
[79] Phoenix.com, 2011: *Deng Xiaoping's Southern Tour Speech*es (Full Text), https://finance.ifeng.com/opinion/zjgc/20111231/5389402.shtml [2018-11-14]

Chart 9 China's trade surplus (US$100 million)



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

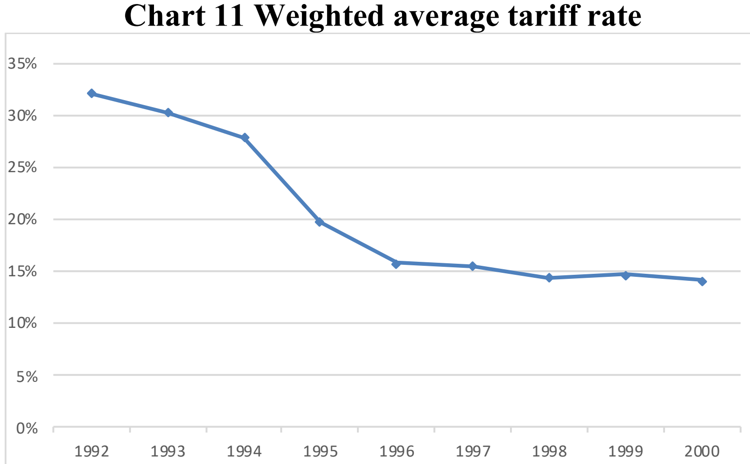
Chart 10 China's foreign exchange reserves (US$100 million)



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

At this stage, China's opening up to the outside world has been further deepened. With the process of learning, with the market economy system as a reference, the pace of reform in some areas have accelerated, such as investment and financing, market access, foreign exchange, and capital flows. First, trade barriers were further removed. Since 1992, China has begun to systematically reduce tariffs. China's weighted tariff rate has dropped from around 32% in 1992 to around 15% in 2000, more than halved.

Chart 11 Weighted average tariff rate



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

Second, the financial and foreign exchange sectors were further opened up. On January 1, 1994, the official exchange rate of the RMB and the foreign exchange adjustment price were formally unified. China began to implement a single, managed floating exchange rate system based on market supply and demand; the financial service industry launched pilot programs of further opening up. After 1995, the pilot city for opening up of insurance to the outside world gradually expanded from Shanghai to cities such as Guangzhou and Shenzhen. **To establish the systems that are commonplace in mature market economies was not easy for China, and every step of reform was full**

of risks and challenges. In this regard, the Chinese government has fully strengthened its belief in reform. When talking about the reform of the exchange rate system in 1994, Zhu Rongji stressed: "The unification of exchange rates is very risky, but it must be done. ... I hope that the relevant leading comrades here will attach great importance to the exchange rate and we must do a good job in this regard"[80].

Third, the opening up was extended from the coastal areas to the inland areas, a large number of mainland cities, such as Nanjing, Wuhan, Chongqing and so on began to appear in State Council documents on the opening up. At this stage, the opening up of the Xinjiang Uygur Autonomous Region was as early as March 14, 1994, when the Central Committee of the Communist Party of China and the State Council issued *Reply of the State Council on Approving the Opening up of Five Border Ports Such as Bhaktu in Xinjiang*[81]. The five border ports were Bhaktu, Jeminay, Ahetubieke, Dulata, and Muzart. The opening up of five border ports and the participation of areas of ethnic groups in the opening up demonstrated the determination of the Chinese government to gradually promote the opening up policy.

Fourth, China begun to attach more emphasis to the research, mastery, and use of international rules, which in turn is reflected in the emphasis on and eagerness for relevant talents. Comrade Zhu Rongji once said: "(In order to attract international talents), you need to pay as much as you think you should pay. Without this, talents will not come. Especially in the banking, securities, insurance and other related sectors, business personnel unfamiliar with established international rules will be at a disadvantage. Without a cohort of internationally competent top-level talents, we would have no foothold in the international community.[82]"

Fifth, China began to pay attention to the diversity and three-dimensionality of opening up, and paid attention to cooperation with non-European and American regions such as Africa and Russia. From July 19 to August 4, 1995, then Vice Premier Zhu Rongji visited Tanzania, Mauritius, Zimbabwe, Botswana, Namibia, Zambia and other African countries, marking a new chapter in China-Africa relations. At the same time, China has also established closer cooperation with Russia, ASEAN and other countries. The diversification of foreign economic and trade relations has to a certain extent promoted the upgrading of China's industry, giving Chinese enterprises the opportunity to "go out".

Sixth, more attention was paid to promoting economic transformation and upgrading through opening up. At this stage, China is no longer satisfied with the "three-plus-one trading-mix". Comrade Zhu Rongji made a systematic summary of this issue. He

---

[80] Zhu Rongji, 2011: Continue to rectify the financial order and strictly control the total amount of credit, *Records of Zhu Rongji's Speeches (Volume I)*, pp. 449-458.

[81] Central People's Government of the People's Republic of China, 1994: Reply from the State Council on Agreeing to Open Five Border Ports Such as Bhaktu in Xinjiang, http://www.gov.cn/zhengce/content/2016-08/31/content_5103947.htm [2018-11-14]

[82] Zhu Rongji, 2011: Intensifying the Cultivation of Scientific and Technological Talents, *Records of Zhu Rongji's Speeches* (Volume III), PP. 509-512.

believes that "the processing trade has many shortcomings. There are at least five shortcomings... Especially clothing, not a high-tech industry... Shenzhen has now stopped the processing trade. Dongguan also realized that it is necessary to develop high-tech and build new advantages. It will not be workable to rely on the past 'three-plus-one trading-mix '[83]." In addition, Comrade Jiang Zemin also stressed the importance of independent innovation on the basis of learning advanced international technology. He believes that "it is necessary to handle the relationship of opening up to the outside world and upholding self-reliance, actively promoting regional economic cooperation and extensive international economic and trade exchanges on the basis of self-reliance, and combining the introduction of advanced technologies with development and innovation to form our own technological advantages. While using foreign capital, we should pay attention to our own accumulation to accelerate the closing of the gap between the developed countries and the developed countries.[84]"

At this stage, China's learning from abroad was undergoing profound changes as well. While referring to "technology" and "equipment", the leaders began to emphasize "learning all achievements of advanced civilizations". **Comrade Jiang Zemin once said that he should "expand and draw on all the achievements of advanced civilizations created by the countries around the world, including developed capitalist countries, and actively participate in international economic and technological cooperation and competition**.[85]" At the turn of the century, he once again stressed that "whether it can continue to learn all the advanced things in the world, whether it can keep up with the trend of world development, is a big issue that affects the success or failure of a country or a nation.[86]" On April 18, 1992, August 10, 1992, August 13, 1992, and September 26, 1992, within a space of less than half a year, the then Vice-Premier Zhu Rongji emphasized the importance of learning four times, pointing out, be it urban construction or tourism development or the reform of financial supervision system, we should actively learn to absorb the experience of developed countries[87]. It can be seen that China's national leaders have begun to view the significance of learning from the strategic heights of the rise and fall of the nation.

---

[83] Zhu Rongji, 2011: To adjust and improve the processing trade policy, *Records of Zhu Rongji's Speeches (Volume II)*, PP. 365-270.h

[84] Jiang Zemin, 2006: Building a New Historical Monument for Sino-African Friendship, *Selected Works of Jiang Zemin (Volume I)*, pp. 35-36.

[85] Jiang Zemin, 2006: Speech at Comrade Deng Xiaoping's Memorial Conference, *Selected Works of Jiang Zemin (Volume I)*, pp. 627-640.

[86] Jiang Zemin, 2006: Continuing to push forward the cause of building socialism with Chinese characteristics in the new century, *Selected Works of Jiang Zemin (Volume III)*, pp. 117-135.

[87] Zhu Rongji, 2011: Speech at the Symposium on the Pilot Work of Stock Markets in Some Provinces and Cities, *Records of Zhu Rongji's Speeches (Volume I)*, pp. 204-213.

5. Fully integrated to the global economic system from 2001 to 2007

On November 10, 2001, the Fourth Ministerial Conference of the WTO reviewed and approved China's accession to the WTO, and China's opening up to the outside world embarked upon a new stage. China had made tremendous efforts in order to join the World Trade Organization. In 1986, China applied to restore its founding member status of the GATT. From this point in time, China's "re-entry" and "accession to the WTO" have been dragging on for 15 years. In previous negotiations, China repeatedly made concessions on agricultural products, non-agricultural products and trade in services, but failed to reach a "re-examination" agreement due to the extortionate terms demanded by a few parties. After the establishment of the WTO, China became an observer of the WTO on June 3 of the same year and continued to unswervingly push forward various reforms as part of its efforts to join the WTO.

It is no exaggeration to say that the Chinese leaders were pushing China to join the World Trade Organization with great political courage and firm will. At that time, "accession to the WTO" was not unanimously accepted. On the contrary, dismissive voice against China from abroad were continuing, and there were many opposing opinions in China domestically. In the years before and after China's accession to the WTO, there were a lot of "theories of China's collapse" internationally. In 2001, Chinese American Gordon Chang published his book entitled *The Coming Collapse of China*[88], predicting that China would collapse within five to ten years. Gordon Chang even said in an interview that "before joining the World Trade Organization, the Chinese government was able to control trade exchanges; but after joining the WTO, Beijing no longer has the authority to control commercial transactions outside the country.[89]" In addition, people including, Lee Teng-hui, former leader of Taiwan and, Mineo Nakajima, from Tokyo University of Foreign Studies, had put forward similar views. There had also been a panic in China. For a time there was a popular saying that "the wolf is coming"[90], people were worried that the entry of foreign companies will lead to the closure of domestic enterprises and the layoffs of large numbers of workers.

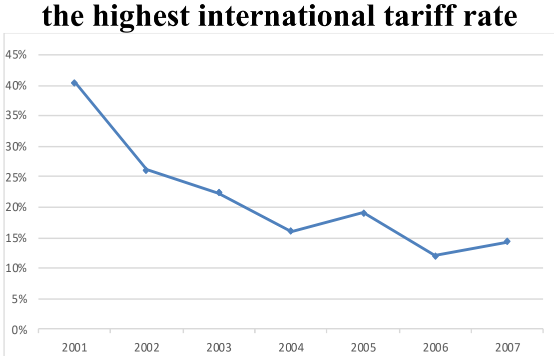
Despite many difficulties and uncertainties, the Chinese government fully recognized the important role of learning through opening up to promote its economic upgrading, and has initiated a series of changes since its accession to the WTO. First, China revised a number of domestic laws and regulations after China's accession to the WTO. According to the statistics by *Overview of Adjustment of China's Economic Law After Joining WTO*[91], the State Council has comprehensively cleared 756

[88] Gordon Chang, 2002, *The Coming Collapse of China*
[89] Wikipedia, 2016: *China Separatism*, https://zh.wikipedia.org/wiki/China Separatism [2018-11-14]
[90] People's Forum, 2018: *From joining the WTO to building Belt and Road Initiative,* http://politics.rmlt.com.cn/2018/0911/528021.shtml [2018-11-14]
[91] Zhang Delin, 2002, *Overview of Economic Law Adjustment upon China's Entry into the WTO*

administrative regulations as of the end of 2000. On the basis of the 1992 price regulations, the State Planning Commission cleared 341 documents, revised 51 documents, and abolished 124 ministerial price regulations and other normative documents; the State Economic and Trade Commission cleared 113 ministerial regulations, of which 19 were abolished and 38 were revised. The Ministry of Foreign Trade and Economic Cooperation cleared 1,413 documents, including 6 foreign trade laws, 164 administrative regulations, 887 ministerial regulations, 191 bilateral economic and trade agreements, 72 bilateral investment protection agreements, and 93 double taxation agreements. Such intensive and efficient document cleansing reflected the government's determination to enter the WTO as a historical opportunity.

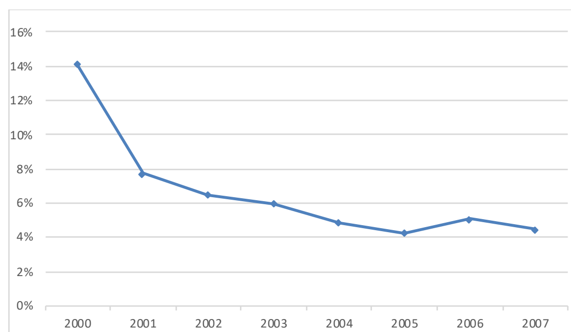
Second, continue to reduce tariffs and begin to remove non-tariff barriers. Figure 5 shows that in the detailed catalog of China's tariffs, the proportion of the highest international tariff rates has dropped from around 40% to around 15%; Figure 6 shows that China's weighted average tariff rate has dropped from around 14% to around 5%. In addition, as one of the four major commitments to join the WTO, China cancelled all import quotas for ordinary commodities in January 2005[92].

Chart 12 Proportion of tariffs reaching the highest international tariff rate



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

Chart 13 Weighted average tariff rate



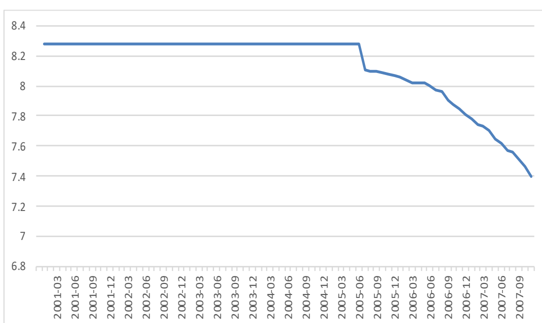
Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

Finally, areas such as finance and capital flows were further opened up. Reforms of capital flow management and exchange rate system were relaxed. Since 2003, China's financial opening up and financial reforms have made breakthroughs, mainly in the reform of the shareholding system of state-owned banks and the reform of the formation mechanism of exchange rate. At 19:00 on July 21, 2005, the People's Bank of China announced that the official exchange rate of US$/RMB was adjusted from 8.27 to 8.11, and the RMB rose by about 2.1%. At the same time, the central bank announced the abolition of the monetary policy that was originally pegged to a single dollar, and

[92] NetEase, 2004: *Abolition of All General Commodity Import Quotas*, http://tech.163.com/04/1217/08/17PR5UPR000915BD.html [2018-11-14]

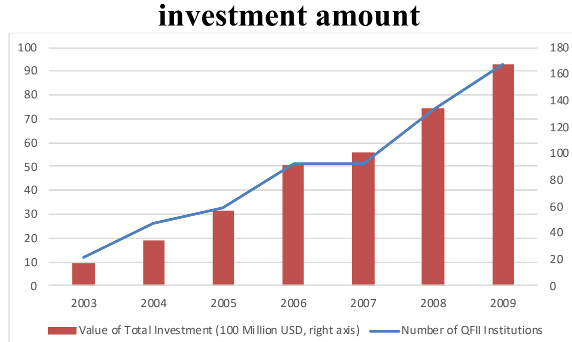
implemented a managed floating exchange rate system based on market supply and demand with reference to a basket of currencies. From July 2005 to July 2008, the RMB appreciated by 21% against the US dollar, and the exchange rate volatility improved significantly. At the same time, the regulation of financial accounts was initially relaxed, and the relevant regulations were more standardized, providing a more convenient environment for domestic and foreign institutional investors to conduct foreign business. On July 9, 2003, China's first QFII (Qualified Foreign Institutional Investors) directive was officially issued, and qualified foreign institutional investors traded for the first time in China's A-share market[93]; on November 2, 2006 China's first pilot bond-like Qualified Domestic Institutional Investor (Qualified Domestic Institutional Investor) was issued by Hua'an International Allocation Fund, with investment scope in major international markets such as New York, London, Tokyo and Hong Kong[94]. Chart 8 shows the changes in the number of QFII investors and the amount of approved investment after the launch of QFII in 2003. It can be seen that the quantity and amount have shown rapid growth, and the investment scale of overseas institutional investors has been increasing.

Chart 14 RMB to US$ exchange rate



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

Chart 15 Change of QFII quantity and investment amount



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

6. Participating global economic governance and support globalization with more opening-up policies since 2008 .

After the international financial crisis, especially after the socialism with Chinese characteristics entered a new era, China's opening up to the outside world embarked upon a new stage. During this period, China actively participated in global economic governance while studying the advanced achievements of foreign countries, and supported economic globalization with practical actions. On November 15, 2008, the first G20 summit was held in Washington, DC. China attended the summit as a founding

[93] Sohu.com, 2003: *Historical first order - QFII first entry into the market*,
[94] Sina.com, 2006: *Fund QDII goes out to sea*, http://finance.sina.com.cn/focus/jjqdiich/index.shtml [2018-11-14]

member and officially assumed the chairmanship of the G20 on December 1, 2015. This is an affirmation of China's influence on the global economy, and it also marks China's beginning to assume more important international responsibilities. Since then, China has proposed the "New Silk Road Economic Belt" and "21st Century Maritime Silk Road" cooperation initiatives, initiated the establishment of the Asian Infrastructure Investment Bank, and its voting rights ratio in the IMF has been increased to 6.39% (ranking from 6th to 3rd, after only the United States and Japan); the renminbi would officially join the SDR currency basket... This series of landmark events together reflected China's substantial enhancement in its global economic status.

At the same time, the pace of opening up in China has further accelerated. On September 29, 2013, the China (Shanghai) Free Trade Zone was formally launched. At present, many experimental policies which were first tested in the free trade zone, such as the negative investment list, have been gradually extended to the whole country. In 2018, China lowered its shareholding ratio requirements in finance and automobiles, continued to cut tariffs, further protected intellectual property rights, held the world's first import exhibition, and announced that it would further reduce tariffs, improve customs clearance and reduce systematic costs upon importation, accelerate the development of new modes of new formats such as cross-border e-commerce; accelerate the opening up of telecommunications, education, medical care, and culture, especially in the areas of education and medical care where foreign investors are concerned and the domestic market demand is significant, shareholding ratios will be relaxed.[95]" These new initiatives reflect China's determination to continue to open up.

The protectionist forces have risen internationally since 2016, and the voices of "anti-globalization" are echoed to each other. However, the Chinese leaders' belief in the exchange and integration of people around the world has not changed at all. **At the 2017 Davos Forum, President Xi Jinping mentioned that "It is impossible, and against historical trends, to artificially cut off the capital flow, technology flow, product flow, industrial flow and personnel flow between countries or let the sea of the world economy relapse to small lakes and rivers in isolation.**[96]" At the Bo'ao Forum for Asia in 2018, President Xi Jinping once again stressed that "in today's world, the tide of peaceful cooperation is rolling forward, the trend of opening up and integration is rolling forward, and the trend of change and innovation is rolling forward. People of all countries should work together and forge ahead hand in hand to build the community of shared human destiny, to create a peaceful, tranquil, prosperous, open, and beautiful Asia and world.[97]" It

[95] Xinhuanet, 2018: *Xi Jinping's Keynote Speech at the Opening Ceremony of the First China International Import Expo* (full text), http://www.xinhuanet.com//2018-11/05/c_1123664692.htm [2018-11- 14]
[96] People.com, 2017: *Sharing the Responsibility of the Age to Promote Global Development – Keynote Speech at the Opening Ceremony of the 2017 Annual Conference of the World Economic Forum*,
[97] Xinhuanet, 2018: *Xi Jinping attended the opening ceremony of the 2018 Annual Meeting of the Bo'ao Forum for Asia and delivered a keynote speech*, http://www.xinhuanet.com/2018-04/10/c_1122660064.htm [2018-11-14]

is based on this conviction that China continues to promote opening up in depth and writes a vision of building a community of shared human destiny as a program of action into its Constitution. China has become a bulwark against unilateralism.

China's opening up has experienced a magnificent journey. Despite short-term ups and downs, it has never changed its direction. At the same time, China has taken learning from the advanced as an important purpose at the beginning of its opening up and improved itself through learning from other's strengths. It is precisely for this purpose that the government carefully guides and manages the pace of opening up and pays attention to the stability and sustainability of economic development. Chinese leaders have a deep conviction of opening up and push for opening up to a new stage with great political courage and responsibility.

III. Economics Analysis

Based on the stylized facts and the history of Chinese opening up process, we proposed the following two refined conclusions from the perspective of economics.

Firstly, learning from the advanced economies by entrepreneurs, labor, and the government is essential for the economy to upgrade. Opening up accelerates this learning process by pushing economic subjects in China to learn about the most advanced knowledge, institutions, and ideas around the world, and put them into practice in light of China's reality. In the process of opening up, Chinese local enterprises, laborers and governments interact with international advanced enterprises and markets in import and export trade and joint ventures, go abroad to study and practice, actively learn, know and understand market economy. In this process China has gradually established the atmosphere and system of market economy and promoted the continuous upgrading.

We attempt to argue that comparative advantage is not as essential as learning. Comparative advantage did contribute to China's development, but is benefit is limited. Many of China's successful industrial upgrade violates the principles of comparative advantage, but learning was achieved in these projects. Learning does not depend on trade, which is true for many cases of industrializations in history besides China, such as the ones for the US and Germany in late 19th century. It is also true that opening up to the outside world has brought in technology and funds, created employment, and generated taxes, but, from a macro perspective, the impact of learning is more far-reaching.

Secondly, to achieve effective and sustainable learning, the process of opening up needs to be carefully managed and paced. An "in-one-fell-swoop" opening up will not bring long-term growth and prosperity to an economy. The Chinese government's management of opening up is mainly reflected in three aspects. **First,** the government has always focused on cultivating the endogenous growth capacity of the economy and focusing on the "hematopoietic capacity" of the economy itself. The Chinese government (especially the central government) focuses on guiding the transformation and upgrading of the real economy, while fully recognizing the far-reaching impact of learning in the opening up. As a result, the central government has issued a series of policies to encourage investment, with profound political courage and determination to continuously promote opening up, and maintain a dynamic balance between moderate protection of domestic enterprises and the introduction of external competition. **Second,** the government needs to work hard to absorb the shocks of opening up. **Third,** borrowing in foreign exchange and capital flows need to be subtly guided and constrained. Since the initial influx of foreign capital, the Chinese government has attached great importance to the repayment of foreign debts. The foreign exchange has been carefully allocated as a strategic resource, and the exchange rate policy has been carefully formulated to avoid any balance of payment crisis.

1. Learning is the most fundamental benefit of opening up

Opening-up pushes domestic economic agents to learn about the most advanced knowledge, institutions, and ideas around the world, which is the most fundamental benefit. In the process of opening up, entrepreneurs, employees, and government are all learning. This continuous path of learning helped China to discard previous mindsets of planned economy, to promulgate the recognition and belief of market economy, and to accelerate the upgrade of the economy.

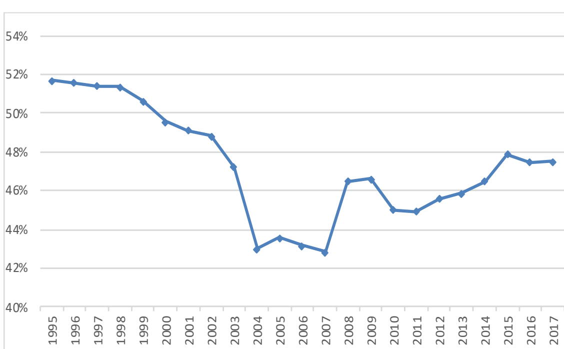
It is no exaggeration to say that in the process of reform and opening up, China's economic subjects have seized opportunities in the spirit of "there must be a teacher of mine among three people". **They tried to learn not only during overseas inspections, training at famous universities, but also in the process of importing equipment, engaging in export trade and the running of joint ventures.** The economic subjects referred to here not only include entrepreneurs and laborers, but also include the government as an important participant in economic activities. In fact, the government not only strives to learn and change its role in opening-up, but also mobilizes its resources to promote the transformation of entrepreneurs and workers. **In the process of learning, Chinese entrepreneurs, laborers, and governments have stepped out of the inertia of the planned economy, understood, recognized, and adapted themselves to the roles and tasks under the conditions of the market economy, and jointly promoted the market economy system and mode of thinking to take root in China, which have since grown stronger in China, jointly promoting China's economic transformation and upgrading.**

(1) A Discussion on learning and comparative advantage

Before discussing this learning process in details, we first attempt to argue that comparative advantage is not as essential as learning**.** Although comparative advantage did contribute to China's development, its benefit is limited. Many of China's successful industrial upgrading, such as the automobile industry and the electronics industry, violates the principles of comparative advantage. Industrial distributions in China also violates comparative advantage. More importantly, many cases of industrialization in the world history did not support comparative advantage as a strategy.

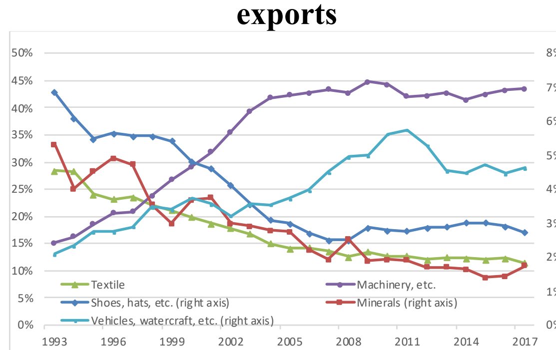
First, the decline in the proportion of exports of textiles, shoes and hats, etc. in the early 1990s was inconsistent with the theory of comparative advantage. Calculation of the proportion of China's labor income to GDP (i.e., the share of labor income) shows that the share of labor income was declining from 1995 to 2007, indicating a large amount of low-cost labor in the Chinese economy and the "Lewis turning point" remained to be reached. According to the analysis of comparative advantage theory, China should focus on the exporting labor-intensive goods. However, the proportion of exports of labor-intensive products such as textiles, shoes and hats to China's total exports has steadily declined at this stage, and the share of exported machinery, vehicles and ships that require more capital and technology has steadily increased. We believe that the quota sanctions on textiles cannot explain the downward trend, because the absolute amount of textile exports has grown steadily since China's accession to the WTO, and China's share of global textile exports has also steadily increased; even at the time when the global textile integration agreement came into effect in 2002 and 2005, the export share did not increase significantly due to the reduction of trade barriers[98].

Chart 16 China's labor income share



Source: CEIC database, ACCEPT calculation

Chart 17 Percentages of China's major exports



Source: CEIC database, ACCEPT calculation

[98] Ministry of Commerce of the People's Republic of China, 2005: *Special Topic 1, Textile Trade Integration and China's Textile Exports,* http://zhs.mofcom.gov.cn/aarticle/Nocategory/200504/20050400081560.html [2018-11- 20]

Second, many of China's successful industrial upgrade violates the principles of comparative advantage. According to the theory of comparative advantage, China should focus on the price advantage of labor and land at the beginning of reform and opening up, and should not rush to engage in complex and technically demanding industries. **However, China planned many capital and technology-intensive industries in advance, with the automobile industry as an example**. In 1979 when China just made the policy of opening to the outside world, central government officials and representatives of Beijing automobile manufacturing plants started to contact American Automobile Corporation (AMC) to discuss the establishment of joint ventures; in 1983, the two sides officially signed a contract to start cooperation[99]. According to World Bank WDI data, China's per capita GDP was only US$225.4 at this time, ranked 181 globally, or 1.45% of the United States, 2.59% of the United Kingdom, 2.16% of Japan, 2.26% of France, and 2.29% of Germany. Even under such conditions, Rao Bin, then Minister of First Machinery Ministry, still stressed that "it should be no more than three years for the joint venture to launch its second-generation vehicles. The yardstick of performance of the joint venture is not the number of cars made or amount of money earned, but the time when new cars can be launched." Today, not only the BAIC Group has been rejuvenated, China's automobile industry has also thrived. There are six Fortune 500 companies in the industry, which has produced excellent private enterprises such as Geely and BYD.[100]

Electronics is also an industry which China has attached great importance to for development. Comrade Jiang Zemin proposed in 1984 that "the electronics industry should be developed.[101]" From 1984 to 1990, various local governments, state-owned enterprises and universities in China imported a total of 33 wafer production lines from abroad, which was estimated to cost US$150 million. Subsequently, the state formulated special projects such as "Project 908" and "Project 909"; In June 2000, in its *Several Policies to Encourage the Development of Software Industry and Integrated Circuit Industry*, the State Council proposed strong support to the electronic and information industries[102]. After 40 years of development, although many companies have experienced failures and eliminations, there are still outstanding companies that have grown stronger in international competition. Huawei, ZTE, Lenovo, Xiaomi and other companies not only have a firm foothold in the domestic market, but also have outstanding performance in overseas markets such as Africa and India, and are gradually moving towards the forefront of independent innovation. In 2016, Polar code, which was mainly developed by Huawei,

---

[99] Liu Yang, 2013: *The Inside Story of China's First Automobile Joint Venture*, China Economic Weekly, No. 37, 2013, http://paper.people.com.cn/zgjjzk/html/2013-09/23/ Content_1303907.htm [2018-11-20]

[100] China Economic Net, 2018: *2018 World Top 500" list: 6 Chinese auto companies are on the list again*, Xinhuanet reprinted, http://www.xinhuanet.com/2018-07/21/c_1123157964.htm [2018-11-20]

[101] Jiang Zemin, 2006: Revitalizing the Electronic Industry, Promoting the Construction of the Four Modernizations, *Selected Works of Jiang Zemin (Volume I)*, People's Publishing House, http://cpc.people.com.cn/GB/64184/64185/180137/ 10818670.html [2018-11-14].

[102] Fa Chai, 2018: *China's Semiconductor Industry in the Historical Process*, Ge Long Hui reprints the article "Fa Chai Business Matters", https://m.gelonghui.com/p/178262 [2018-11-15]

was selected for the 5G short-code signaling standard for the first time. This is the first time that a Chinese company has entered the international basic communication framework agreement, and the innovation capability of China's electronics industry has been internationally recognized.

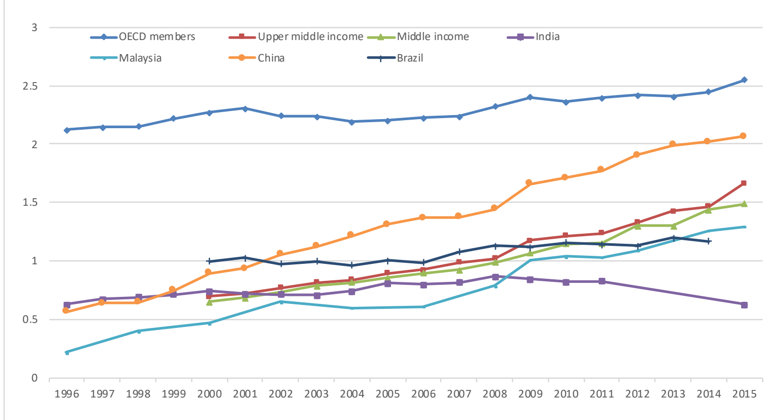
Third, China attaches great importance to R&D investment and has made remarkable achievements in the fields of scientific research and innovation. According to the traditional theory of comparative advantage, developing high technology is not the best choice for a latecomer country. However, the Chinese government has always focused on R&D investment in high-tech projects. In March 1986, four famous Chinese scientists wrote to the national leaders and proposed to formulate a high-tech development plan. In November of that year, China formulated and implemented the National High-Tech Research and Development Plan (863 Program) and approved RMB10 billion (which was 50 times the amount recommended by the four scientists, well reflecting the highest level of attention to high-end industries and technologies)[103].

The proportion of China's R&D investment in GDP exceeded that of India in 1999, surpassed Brazil in 2002, and exceeded the UK in 2010. It is consistently higher than the average of middle-income countries and the average of middle- and high-income countries. In 2015, the figure (2.07%) was only 0.5 percentage points lower than the average of OECD countries[104]. Such investments have generated significant results. According to data from the World Intellectual Property Organization (WIPO), in 2017, the number of international patent applications from China was 48,900, ranking second in the world, only after the United States (56,600), an increase of 13.4%. In terms of applicants, there are three Chinese companies among the top ten international patent applicants. Among them Huawei ranked first in the world with 4,024 applications, surpassing established technology companies such as Intel, Qualcomm, etc[105].

---

[103] Ma Yude, Hu Xueqin, 2009: *The "863 Program": 200 million applied for and 10 billion approved*, China Economic Weekly, 2009, No. 02, PP. 61-62.
[104] Data from the World Bank WDI database.
[105] World Intellectual Property Organization, 2017, *Patent Cooperation Treaty Yearly Review 2018*, http://www.wipo.int/edocs/pubdocs/en/wipo_pub_901_2018.pdf [2018-11-20]

Chart 18 National R&D investment as a percentage of GDP (%)



Source: World Bank WDI Database.

In addition, comparative advantage theory can hardly explain the development of some micro-enterprises. We will detail the developmental history of two manufacturing companies in the following paragraphs – Jiangnan Mould & Plastic Technology Co., LTD (JNMPT) and Chengxing Group. JNMPT generated almost no profit when producing low-end products such as plastic toys and Christmas candles in the 1980s. Instead, it succeeded in making automobile bumpers with higher production technology and stricter capital requirements. The production of Chengxing Group food-grade phosphoric acid products requires a lot of research and development investment, but they succeeded eventually. Obviously, the narrow sense of comparative advantage theory cannot fully explain the rapid upgrading and development of China's economy. By comprehensively learning from advanced enterprises, Chinese enterprises can break through the limitations of narrow comparative advantage and realize their own leap-forward development. China's current achievements in high-tech fields such as electric vehicles, high-speed rail and chips provide a cogent proof of our views.

If we look back at China in the 1980s, given the macro-traits of cheap labor, land and other factors, the comparative advantage of primary manufacturing in the Northeast would seem to be more straightforward. Shenyang had a complete industrial system, a large number of skilled workers, complete supporting enterprises; Liaoning had ports such as Yingkou and Dalian, and the road and rail transportation was also very convenient (Shenyang-Dalian Expressway was the first expressway built in New China); Dalian set up its economic and technological development zone in 1984, enjoying the same preferential policies as the Shenzhen Special Economic Zone. However, in our field interviews, we learned that a large number of entrepreneurs and workers in Liaoning went south to Shenzhen, where they established their own new businesses. After the reform and opening up, a large number of outstanding industrial enterprises also appeared in Guangdong, Jiangsu and Zhejiang, rather than the Northeast. This shows that simple discussion of comparative advantage cannot fully summarize the significance of opening up to China.

More importantly, many cases of industrialization in the world history did not support comparative advantage as a strategy. As mentioned in the first section, Germany and the US adopted protection policies in late 19th century and early 20th century when they were catching the Great Britain. Without free international trade, it is impossible to rely on the comparative advantages to develop. However, before World War I, both countries acquired the most advanced machines and business institutions, perfected them, and surpassed Britain in terms of industrial output.

In 1791, Alexander Hamilton, the finance minister and one of the founding fathers of the United States, and Cox, who supported increased tariffs and trade protection, jointly submitted *Report on Manufactures* to Congress to openly encourage the introduction and plagiarism of technology. However, their path of learning was not smooth. In fact, Britain set strict rules protecting what it invented. For instance, textile workers were banned from entering the United States. **It was Samuel Slater, an apprentice in a British textile factory, the Father of the US Industrial Revolution in the eyes of President Andrew Jackson, and the Traitor in the eyes of many British citizens who brought all the machine design in his mind to the new continent.** [106]

The UK also adopted similar methods when developing its tea industry. In 1851, Robert Fortune, head of the Chelsea Royal Botanic Gardens in London, stole 17,000 teas and 23,892 tea trees from China. He even took away an experienced team of tea planting and complete tea making process. In 1858, he was hired by the US Patent Office to come to China to "learn" tea planting, at an annual salary of 500 pounds[107].

This was a classic model of learning in the old times. Learning, the most fundamental role of opening up, does not necessarily require international trade.In this regard, China is indeed a polite student. Through joint-ventures and gradually opening up domestic market, China shared its fruit of learning with the world. Although as a less developed country China did enjoy comparative advantages on the low cost of land and labor while opening up, many successful practices in the Chinese economy are hard to be explained by the theory of comparative advantage.

[106] Summarized from BBC News, Samuel Slater: American hero or British traitor? https://www.bbc.com/news/uk-england-derbyshire-15002318 [2018-12-01]

[107] Boss Dai, 2018: *A pre-publicized "curve overtaking"*, the rice barrel financial. The article also gives many similar cases, including references to *For All the Tea in China*, Sarah Rose, 2015; *Green Gold: Tea Empire*, McFarlane, 2016; *Letters with Jefferson and others*, National Archives , 1788; *Trade Secrets: Intellectual piracy and the origins of American industrial power*, Doron S. Ben-Atar, 2004; *Smuggler Nation: How Illicit Trade Made America*, Peter Andreas, 2014; *Industry and Empire: From 1750 to the Present Day* , Eric Hobsbawm, 2016.

(2) Enterprises gradually upgrades in their learning from abroad

Enterprises are the source of the vitality of the market economy. However, under the planned economic system, state-owned enterprises receive instructions from their superiors, conduct administrative management of their subordinates, and produce according to state plans. The raw materials and products of the enterprise are allocated and distributed by the state, and the profits and losses are also borne by the government. Looking at China at that time, there was almost no enterprise with a modern governance structure.

We believe that joining the supporting system of international advanced enterprises is the first important channel for Chinese enterprises and entrepreneurs to learn from and understand the commercial thinking and management experience of the market economy and gradually achieve transformation and upgrading. Two township enterprises in Jiangyin City, Jiangsu Province, can serve as good examples.

Chengxing Group. Chengxing Group is a chemical enterprise producing fine phosphorus chemicals. Its products are sold in more than 70 countries and regions around the world. In 2017, its operating income reached RMB72.3 billion. It has more than 50 wholly-owned and controlled subsidiaries and more than 10,000 employees, among the top 300 Chinese companies of China Top 500 for many years. At the same time, **Chengxing Group is also a township enterprise founded in 1984 (village-run enterprise in Chengnan Village, Yaosai Town, Jiangyin City). The initial capital was only RMB38,000 and its initial main product was phosphorus pentoxide. In the first year, it only made a profit of RMB80,000**.

Mr. Li Xing, founder and Chairman of Chengxing Group, said in the survey that the secret of Chengxing's success is "to be closely tied to the train of major international companies and to become a part of their industrial chain". The turning point of the company from "small workshop" to "big business" was the supply of phosphoric acid additives to the joint ventures of Coca-Cola and Colgate in China in the mid-1990s. However, making way into the industry chains of major companies is very difficult and orders cannot be obtained simply by low cost. **Colgate's product quality requirements were a list of 21 specifications, while domestic lists were not longer than 10. To this end, the company spent more than RMB1 million to purchase patents, invested RMB1.6 million to improve technical equipment, and it took four years before they reached the standard requirements. Technological improvements to meet Coca-Cola's supply requirements also took them three years. In 1998, Colgate awarded Chengxing Group the title of "Excellent Supplier", and most of the hydrogen peroxide products for toothpaste required by 36 Colgate subsidiaries around the world were purchased from Chengxing[108].**

[108] Relevant information compiled from Wan Fu, Zhu Jianhua, 2008: *The vicissitudes of the life - the legend of the rise of Li Xing and Cheng Xing*, People's Daily (overseas version), October 28, 2008, 08th edition; Yang Yi, 2014: *Running*

It should be pointed out that interaction with international advanced enterprises not only brings "hard" knowledge of equipment and technology to Chinese enterprises, but also brings about changes in thinking and management methods. Colgate has strict requirements on product quality, and has detailed regulations on business processes such as production, order taking, billing, and transportation. Suppliers and employees must receive training and assessment from Colgate[109]. Chengxing Group attached great importance to this. Mr. Li Xing personally supervised the implementation and finally passed the certification. The company management also experienced a qualitative leap. During the survey, Mr. Li Xing shared with us another interesting anecdote. The Chengxing Group's production workshop had set up access control and the swiping of an access card was normally required for one to enter. When he was receiving foreign business partners, he opened the door in advance according to Chinese customs to show respect. However, the foreign visitors believed that this was not in compliance with the management regulations and not worth practicing. It can be seen that the changes in thinking and ideas brought about by foreign enterprises are profound and meticulous.

Jiangnan Mould & Plastic Technology Co., LTD (**JNMPT**). JNMPT is an excellent equipment manufacturing enterprise. It is the largest automobile bumper manufacturer in China, a supplier of BMW and Jaguar Land Rover. In 2015, its operating income was RMB3.1 billion and its net profit was RMB295 million. It has set up factories in the United States and Mexico. **The predecessor of JNMPT was a small town owned and operated firm founded by Mr. Cao Mingfang in Zhouzhuang Town, Jiangyin City in 1984. For the first five years since its formation, it produced export products such as toys and Christmas candles.**

In 1988, Volkswagen's Santana car project was launched in Shanghai and it was necessary for them to purchase car bumpers in the Yangtze River Delta region to meet the required localization rate. **After learning about it, Mr. Cao Mingfang managed to contact Shanghai Volkswagen and, with the support and guarantee of the Jiangyin Municipal Government, he borrowed US$2.53 million from bank to import German equipment and hire German experts to guide the production** and produced bumpers meeting VW's technical requirements within one year. They successfully won orders for Santana sedans. Since then, the bumper has become the business card of this township enterprise. The company has subsequently supplied supporting goods to well-known enterprises such as BMW, GM and Mercedes-Benz and was listed in 1997. By the year 2000, the company's net assets reached RMB260. With the support of the Jiangyin Municipal Government, the company was privatized and renamed JNMPT[110].

Ten Thousand Mountains - Talking about the Things of Li Xing, Jiangsu People's Publishing House, pp. 110-111, p. 123.

[109] Yang Yi, 2014: *Running Ten Thousand Mountains - Talking about the Things of Li Xing*, Jiangsu People's Publishing House, p. 115.

[110] Based on survey.

From a small firm that could merely produce plastic toys to a high-value-added manufacturing enterprise doing business around the world, JNMPT has undergone profound changes by learning advanced management and commercial concepts through participating in the supporting system of foreign enterprises. Every time JNMPT expanded its factory or set up new factories elsewhere, they would engage German companies as general contractors for proper quality control. JNMPT has recently tried to build its own factory, but they still chose to work together with German companies for the overall design. Following the foreign enterprises, JNMPT has in the meantime sold its products globally. In fact, the overseas factories of JNMPT were built to complement BMW's project in Mexico. The factory is situated opposite the BMW Mexico factory, thereby making their way to the North American market.

Through joining the supporting system of advanced international enterprises, many Chinese "small workshops" have been transformed into "big enterprises". While bringing in profits, technology and equipment, advanced international enterprises have also brought advanced management methods, business ideas and brand awareness. We believe that the impact of opening up in this regard is profound and extensive, and the two companies mentioned above are no exceptions. In fact, Liu et al. (2014)[111], relying on the micro-data from corporate surveys, found that startups with management experience in foreign enterprises have better mechanism design in terms of employee incentives and legal arbitration. They believe that this is an important channel of FDI spillover.

While interacting with advanced international enterprises, a large number of entrepreneurs began to go abroad and learn through government training, inspection projects, and self-funded training programs. In 1985, the Foreign Experts Bureau launched the Business Foreign Language Test (BFT) to determine the English level of those from governments, businesses, and finance sectors who are going to receive overseas training. According to statistics, as of 2011, the total number of candidates for the exam had exceeded 200,000[112]. Mr. Li Xing attended the training at the University of California Business School in 1992, when he first learned about the "shareholding system" and was taught of the argument that "(shareholding system) is an effective form of economic organization to divide social wealth equitably, resolves labor-management disputes, and promotes social progress". He was so persuaded by the argument that he has since been determined to have the company listed in order to build a modern corporate structure and raise funds for development. To this end, he tried to list the company on the NASDAQ in

[111] Liu, Q., Lu, Ru., Zhang, C., 2017, *Entrepreneurship and spillovers from multinationals: Evidence from Chinese private firms*, China Economic Review, Volume 29, PP 95-106.
[112] Sina Education, 2011: *National Training Program for Foreigners in Foreign Countries*, http://edu.sina.com.cn/yyks/2011-09-21/1657313513.shtml [2018-11-13]

the mid-1990s and made a roadshow in New York. But the 1997-1998 financial crisis intervened and he had to change his mind and had the company listed domestically[113].

(3) A large number of state-owned enterprise laborers form market economy thinking through foreign enterprises

Along with the entry of foreign-invested enterprises, a large number of state-owned enterprise employees in China have begun to break through the barriers of planning and begun to understand and accept the way of thinking of the market economy. In the era of planned economy, most of China's urban laborers work in state-owned enterprises. Take Shenyang as an example. In 1990, Shenyang had a total of 2.3 million employees, of which 1.46 million worked in state-owned enterprises and 750,000 worked in collective enterprises[114].

Before the reforms at the end of the 20th century, the state-owned enterprises were not only the institutions that provided jobs, but also assume a lot of social responsibilities for the employees. Although the wages paid by the state-owned enterprises were low, **the employees' housing (rental housing provided by the units), medical treatment (hospitals affiliated to state-owned enterprise), children education (schools and kindergartens affiliated to state-owned enterprises), welfare (giving out of fruits, fish, meat, etc.), and pensions (paid upon retirement) were all from enterprises**. It can be said that the state-owned enterprises at that time were "units" in the literal sense, that is to say, the units upon which people were dependent, not the enterprises in the modern sense. **Therefore, many employees of state-owned enterprises were afraid of being "laid off"**, and there was even a case wherein a state-owned enterprise employee publicly killed the manager who had fired him[115].

It is the entry of foreign-invested enterprises that allows many employees of state-owned enterprises to realize that they can still live decently and respectably after leaving the state-owned enterprises and government systems. Foreign-invested companies have provided new choices for workers with their generous pay and benefit. According to an old leader, the joint venture of BMW Brilliance not only paid well, but also provided attractive benefits. Many workers wanted to seek employment by the joint venture, and people were proud if their children could enter BMW Brilliance[116]. This is not an isolated case. As a matter of fact, even by 2013, when private enterprises were flourishing and state-owned enterprise reforms were progressing, the average salary of foreign-invested enterprises (RMB62,000) was still significantly higher than that of joint-stock companies (RMB52,000) and state-owned enterprises (RMB56,000)[117].

[113] Based on Wan Fu, Zhu Jianhua, 2008: *The Vicissitudes of Life - The Legend of the Century of Li Xing and Cheng Xing*, People's Daily (Overseas Version), October 28, 2008, 08th Edition.
[114] Shenyang Municipal Bureau of Statistics, 2000: *Shenyang Statistical Yearbook (2000).*
[115] Based on survey.
[116] Based on survey.
[117] Data from the annual database of the National Bureau of Statistics.

With the changing idea of employment, employees began to obey the management, pay attention to efficiency, and the official-centered thinking began to crumble. There was no strict efficiency incentive during the era of large state-owned enterprises. Many employees "passed a day with a newspaper and a cup of tea." Mr. Wei Haijun, Chairman of Northeastern Pharmaceutical Co., Ltd, another state-owned enterprise in Shenyang, shared a vivid case with us. When he first came to the Northeastern Pharmaceuticals, which was on the verge of bankruptcy, and proposed the slogan of "No room for bad work, even if slightly bad!" However, several employees reported him to the municipal party committee and the municipal government, alleging that such a request was "idealism" because it was not possible to achieve100% accurate in the work. Although the report was dismissed, it can still demonstrate that some of the employees' ideas were incompatible with the market economy[118]. However, the generous salary of foreign-invested enterprises has gradually altered people's ideas. BMW Brilliance provided no "iron rice bowls", and employees were not unless they passed the test. Even the mayor could not directly intervene with it. An employee would be fired if the performance was unsatisfactory[119]. These facts made people realize that "acquaintances, relations, or officials" were not a panacea. It is necessary to rely on one's own ability to earn bread and better pay requires more work.

(4) The government transforms its role by interacting with foreign-invested companies

Under the planned economy system, the government plays a central role as the overall coordinator in economic activities, and controls the entire national economy through the formulation of production plans, the allocation of raw materials, and the distribution of manufactured goods. What role should the government play in a market economy? In the face of this extremely complex issue, **the initial approach of government officials was relatively simple.** After the central government proposed the strategy of "holding the big and letting go the small" in 1995[120], Shenyang, a major industrial city in Northeast China, altered the ownership of a large number of enterprises, devolved the management of municipal enterprises to the district government, and then privatized them. According to statistics, there were 789 local state-owned industrial enterprises in Shenyang in 1995. By 2000, the number of state-owned enterprises decreased to 391. In the same period, the number of collective enterprises decreased from 6,453 to 2,787, while that of private enterprises increased from 11 to 1,127. The number of municipal state-owned enterprise were decreased from 522 in 1995 to 27 in 2017[121]. In our research, we learned that many of these privatized "small" enterprises were in fact profitable, which included more than

---

[118] Based on survey.
[119] Based on survey.
[120] National People's Congress, 1996: *Proposal of the Central Committee of the Communist Party of China on Formulating the Ninth Five-Year Plan for National Economic and Social Development and the Vision of 2010 Vision*, http://www.npc.gov.cn/wxzl/gongbao/2001- 01/02/content_5003506.htm [2018-11-13].
[121] Shenyang Municipal Bureau of Statistics, 2000: *Shenyang Statistical Yearbook (2000).*

460 "invisible champions" in niche fields. However, the majority of them have ceased to exist because suspended bank loans or exit of management.

Obviously, simply "letting it go" is no solution. Practice results in real knowledge and the interaction between the government and advanced foreign enterprises has become an important way for the government to learn market economy thinking and institutions. We believe that through interaction with foreign-invested companies, the Chinese government (especially local governments) has undergone changes in understanding in the following aspects at the very least.

First, the government should not interfere with the day-to-day operations of the company and should provide good public services. In this regard, joint ventures have given a vivid lesson to Chinese government officials. Gu Mu. then Vice Premier of the State Council, stressed the improvement of the operating environment for foreign-invested enterprises. He pointed out that "foreign investors are mostly put off by the way of managing foreign-invested enterprises in the same way of managing state-owned enterprises and the imposition of arbitrary administrative interventions, for example, the replacement of a Chinese senior officer of a joint venture without deliberation on the board meeting[122]".

The Shenyang government's transformation also provided a case in point. In 2003, Shenyang invited BMW and a local automobile company, Brilliance, to establish a joint venture to produce complete vehicles. In our research, we learned that BMW was very strict with corporate management, the company's supporting procurement was controlled by BMW, and employees were hired via standardized tests. An old leader told us that "even a note from the mayor won't help you get a job in BMW!" At the same time, BMW put forward detailed and strict requirements for the construction of the land. The Shenyang government has made a great deal of efforts to level the hills, replace the original soil with new soil that meets the standards, build roads and install traffic light as required[123]. It would be unthinkable during the era of planned economy that the government would provide such a nuanced service to a non-state-owned factory.

Secondly, the success of joint ventures strengthens the government's determination to further reform. For the reform of state-owned enterprises, Shenyang has made many efforts and attempts, including contracting, tax for profits, and shareholding system. Even China's first bankruptcy case of state-owned enterprise took place here (Shenyang Anti-Explosion Equipment Factory went bankrupt in 1984). But these measures could not fundamentally change the face of state-owned enterprises. In our survey, we learned that important state-owned enterprises such as Shenyang Machine Tool and Northeast Pharmaceutical also had the opportunity to carry out joint ventures during that period, but it could not materialize for various reasons. **In contrast, the success of**

---

[122] Gu Mu, 2009: *Gu Mu Memoirs*, Central Literature Publishing House, Chapter 6, PP377.
[123] Based on survey.

BMW Brilliance made the government realize that the introduction of advanced business partners is the right direction for state-owned enterprise reform. Recently, Shenyang government has promoted 27 state-owned enterprises to carry out mixed ownership reforms. Among them, the reform of Northeast Pharmaceuticals has been completed and companies such as Northern Heavy Industries were actively inviting strategic investors.

Thirdly, the government should respect entrepreneurship. As the economy develops, government officials are increasingly aware of the important role of entrepreneurs in business development. **Zhu Rongji once pointed out that "it is easy to buy equipment, and it is also possible to introduce technology, so long as there is money, but it is not so easy to train real corporate executives.[124]"** When talking about trying to open up the international market, he also stressed that "**as long as we have real entrepreneurs, we can break into their markets to make big money.[125]**" In 2018, the United Front Work Department of the CPC Central Committee and the National Federation of Industry and Commerce jointly issued a list of "100 Outstanding Private Entrepreneurs in the 40 Years of Reform and Opening up", "as a showcase of the development of China's private economy and the major achievements of the entrepreneurial as builders of socialism with Chinese characteristics[126]". The government's reliance on entrepreneurs has reached new heights.

Local government follows suit of the central government. The change of the old Shenyang leadership's view of Yang Rong, then head of Brilliance, is another example. Yang Rong was the founder and head of Brilliance, who introduced Japanese technology to produce Jinbei Auto. He then strongly initiated the cooperation with BMW. Around 2002, however, he found himself in conflict arising from equity rights with a provincial leader and had to move to Hong Kong. **Over time, many people praised Yang Rong's strategic vision and thought that if he had continued to take charge of Brilliance, the company would have developed better.**

Fourthly, it is recognized that development of national economic cannot rely solely on state-owned enterprises. Since the mid-1990s, Chinese leaders have begun to think about reducing excessive dependence on exports to Europe and the United States and opening up new markets. In this regard, non-public enterprises have taken the lead. **Zhu Rongji repeatedly commended Huawei, Haier and other enterprises for successfully entering the Russian market: "There is something wrong with our existing enterprise system. We cannot solely rely on state-owned enterprises. This also shows that there**

[124] Zhu Rongji, 2011: Strengthening Economic and Trade Cooperation with Developing Countries, *Records of Zhu Rongji's Speeches* (Volume 2), People's Publishing House, PP.194-201.
[125] Zhu Rongji, 2011: Several Issues Needing Attention in the Development of Shanghai, *Records of Zhu Rongji's Speeches* (Volume II)", People's Publishing House, PP.271-276.
[126] Xinhuanet, 2018: *List of Outstanding Private Entrepreneurs in the 40 Years of Reform and Opening up*, http://www.xinhuanet.com//finance/2018-10/24/c_129978412.htm [2018-11-14] .

is no future for state-owned enterprises without reform... More and more problems are exposed with our state-owned enterprise system... I heard that Huawei has entered the telecom market here, with sales of US$100 million last year. This is a private enterprise. Haier is also developing in Russia. Sichuan Changhong also wants to enter the Russian market, prepared to invest US$30 million to build a factory with an annual output of 1 million TV sets. I think they have a vision.[127]"

While learning from foreign-invested enterprises, Chinese government officials also attach great importance to studying the system and experience of market economy from foreign governments, international organizations and scholars. At the early stage of reform and opening up, the government sent a large number of delegations. In fact, the delegation led by Gu Mu, Vice Premier of the State Council, to visit five European countries in 1978 was the prelude to reform and opening up. After returning, Gu Mu gave a report of nearly ten hours to the Politburo, which played an important role in the Chinese leaders' determination to carry out reform and opening up[128]. Into the 1990s, the Chinese government began to cooperate with famous foreign universities and sent officials from all levels to receive training. According to statistics, between 1992 and 2005, there were 42 bilateral training programs signed by the National School of Administration alone, including 8 in collaboration with the United States, the largest number; in 2010, about 70,000 people from the national party and government and enterprises and institutions were sent abroad to receive training[129].

The reputable Kennedy School of Government of Harvard University and the Chinese government have three high-level projects, among which the "New World Harvard Senior Civil Servants Training Program" was the first launched. Interviews in English were conducted by the senior leadership of Kennedy School and the admission rate was of less than 50%. Li Yuanchao (The former member of the Political Bureau of the CPC Central Committee, the former Vice-President of the State, then secretary of the Nanjing Municipal Party Committee) and Ma Jiantang (the party secretary of the Development Research Center of the State Council, the former director of the National Bureau of Statistics, and the then deputy governor of Qinghai Province) both attended the program[130].

In the process of advancing reforms, the Chinese government has also paid great attention to understanding and drawing on the experience of advanced countries. In 1991, Vice Premier of the State Council Zhu Rongji spoke at a meeting with Alan Greenspan, then Chairman of the Federal Reserve, "China pays attention to the US

---

[127] Zhu Rongji, 2011: Enterprises Should Enter Russia, *Records of Zhu Rongji's Speeches (Volume IV)*", People's Publishing House, PP. 230-236

[128] Gu Mu, 2009: *Gu Mu Memoirs*, Central Literature Publishing House, Chapter 6, PP. 305.

[129] Wang Dongya, Yu Yan, 2011: *Full Record of Overseas Training for Mainland Officials*, Phoenix Weekly magazine, http://news.ifeng.com/shendu/fhzk/detail_2011_09/08/9041977_0.shtml [2018-11- 13]

[130] Wang Dongya, Yu Yan, 2011: *Full Record of Overseas Training for Mainland Officials*, Phoenix Weekly magazine, http://news.ifeng.com/shendu/fhzk/detail_2011_09/08/9041977_0.shtml [2018-11- 13]

experience and practices in banking reform. We have changed the pattern of the central bank's original provincial branch and established nine major branches, with a view to strengthening the supervision of the central bank and eliminating the improper administrative interference from local governments.[131]" When he met with U.S. Treasury Secretary Lloyd Bentsen in 1994, he also said: "(in order to unify exchange rate, China has) adopted proposals of The International Monetary Fund and, for now, the situation is good and there is no problem...[132]" China has more fully drawn on the experience of other countries in the process of establishing stock markets and reforming the banking system, as detailed above. In fact, the pace of such learning has not stopped until today. When we were conducting the survey in the Shenyang Area of the Liaoning Free Trade Zone, we learned that the relevant leaders repeatedly mentioned the World Bank's *Business Environment Report* in their speeches, striving to align with the world's advanced benchmark, simplifying the business registration process, and achieving the effect of "business license being issued on the same day, the official seal being delivered within four hours, and the tax registration being completed on the same day."

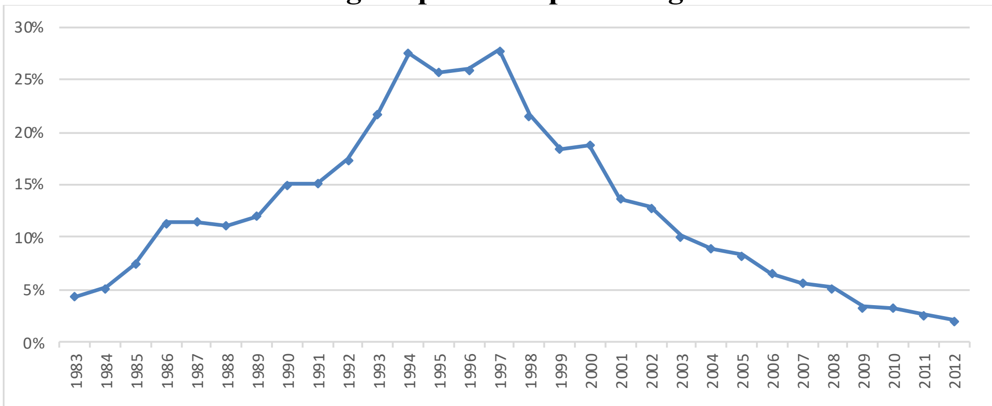
(5) Discussions on capital, technology, tax creation, employment, etc.

It is admittedly true that the opening up has also brought more funds, technology and equipment to China, created taxation and employment, and enabled China to integrate itself into the international economic system by applying its comparative advantages. However, we believe that the depth of its impact is far less significant than the learning of advanced knowledge, institutions and ideas.

As a country with a high savings rate, China does not lack funds in the general sense. From 1983 to 1986, the proportion of China's actual use of foreign capital in fixed assets investment was consistently less than 10%. Even in the 1990s, when the inflow of foreign capital was at its greatest, the highest proportion was only 28% (1994, 1997), followed by yearly decline. Overall, the scale of investment generated by foreign investment is limited.

[131] Zhu Rongji, 2011: Talks with Chairman of the Federal Reserve Board Alan Greenspan, *Records of Zhu Rongji's Speeches* (Volume II), People's Publishing House, pp. 34-41.
[132] Zhu Rongji, 2011: Talks with U.S. Treasury Secretary Bentson, *Records of Zhu Rongji's Speeches (Volume II)*, People's Publishing House, PP. 464-471.

Chart 19 Actual use of foreign capital as a percentage of fixed asset investment



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

The introduction of technical equipment is an important purpose of China's reform and opening up. Chinese enterprises have indeed introduced and learned many advanced technologies through foreign-invested enterprises, which has promoted China's productivity and improved China's welfare. Holmes et al. (2013) gave a detailed explanation of this issue[133] (however, we disagree with the view that China gain at a loss to other countries, as thoroughly explained in the first part of this chapter)**. However, we believe that the impact of narrow technical equipment is limited.**

First of all, China imports technical equipment not simply to use it for production, but to learn through the technical equipment. In the survey, an old leader of the State Planning Commission mentioned that before 1980 the tolerance standards of the Chinese manufacturing machinery industry were designed according to the Soviet Union standards, until the reform and opening up. Through the import of a large number of Western parts, we realized that they should be updated. The current system of tolerance of form and position standards was therefore established. This shows that even imported parts can bring huge learning effects.

Secondly, the improvements made by purchased equipment alone are limited and should not be overstated. As mentioned above, as early as1970s, Zhou Enlai presided over the introduction of Western fertilizer, chemical fiber, large rolling mills and other equipment, known as the "Four Three Program", but this did not fundamentally change the face of relevant industries. Another similar example is that as a joint venture partner of BMW, Brilliance Auto's own brand "04 Chinese Car" and BMW "3 Series" and "5 Series" were produced on the same line before and after 2004. Despite the strong promotion, the Chinese car still has not been recognized by the market[134]. **Huang Yasheng (2003)** did an

[133] Holmes T J, Mcgrattan E R, Prescott E C. *Quid Pro Quo: Technology Capital Transfers for Market Access in China**[J]. Staff Report, 2013, 82(3): págs. 1154-1193.
[134] Su Qingju, 2003: *China and domestic BMW co-production to lay the foundation for quality*, Sohu Auto reprinting Beijing Morning News http://auto.sohu.com/2003/12/16/01/article216960166.shtml [2018 -11-13].

in-depth study on the issue of foreign investment in China. He explored the case of clothing and other industries as the case, and believed that the knowledge transfer caused by export-oriented FDI is very limited. At the same time, he also stressed the benefits that FDI brings to the Chinese economy at the institutional level. He believes that foreign investment can help Chinese companies break through the old institutional obstacles and promote China's economic development while bringing technology[135].

Thirdly, in order to introduce these technical equipment, Chinese companies have also paid a huge cost. As mentioned earlier, JNMPT imported equipment from Germany costing US$2.53 million, which is undoubtedly a huge amount for a township enterprise with a registered capital of only US$320,000 and a few years ago[136]. Huang Yasheng (2003) also pointed out that most state-owned enterprises acquired by foreign-invested enterprises have accumulated a large number of excellent assets in the early stage, despite their poor profitability[137].

Finally, core advanced technologies are also difficult to obtain through joint ventures or purchases. In 2005, Shenyang Machine Tool Group acquired the famous German machine tool company Heath Group, which was on the verge of bankruptcy, and obtained the complete set of technology for its 17 products. However, due to the restrictions of the German Federal Economic and Export Administration, the relevant documents could not be shipped to China for domestic use.[138]

From a macro perspective, the tax contribution of foreign-invested enterprises to the government is also limited. In the first 30 years of reform and opening up, in order to attract foreign investment, the Chinese government introduced a series of tax incentives. According to Zhu Lin (2007)[139], the income tax of foreign-invested enterprises enjoys the policy of "exempt for 2 years and reduced for 3 years", that is to say, the first two years of profit is exempted from tax, and the tax for the next three years is halved; equipment and necessary materials imported by a joint venture according to the contract are exempt from customs duties and uniform import business tax; non-restricted export goods are exempt from customs duties and uniform business tax; foreign-invested enterprises enjoy the most preferential tax policies in the four special economic zones, fourteen coastal urban economic and technological development zones, and the Yangtze River Delta, Pearl River Delta, and Xiamen-Zhangzhou-Quanzhou Triangle Area, e.g. corporate income tax levied at 15% (33% for domestic companies). In fact, the "super national treatment" of foreign

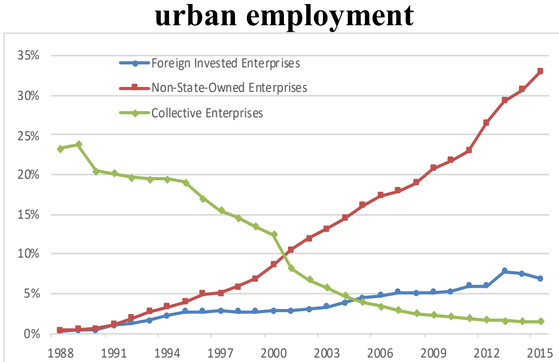
---

[135] Huang Y, Huang, P Y, Kirby W., 2009, *Selling China: Foreign Direct Investment During the Reform Era*. Cambridge University Press, Introduction and Chapter 9.
[136] Xu Dongqing, 2017: *Cao Mingfang: Blowing up the Yellow Sands for Gold, Jiangyin Industrialists*, Shanghai People's Publishing House, PP. 289-302.
[137] Huang Y, Huang, P Y, Kirby W., 2009, *Selling China: Foreign Direct Investment During the Reform Era*, Cambridge University Press, Chapter 9.
[138] Based on survey, cf He Yong, 2007: *Shenyang Machine Tool Buying a Ship to the Sea*, People's Daily, 06th Edition, June 27, 2007, http://media.163.com/05/0526/11/1KM5FS4P00141E37 .html [2018-10-26]
[139] Zhu Lin, 2008: *Historical Investigation and Theoretical Analysis of Tax Policies for Foreign-funded Enterprises in China*, Southwestern University of Finance and Economics.

capital in the taxation was not ended until the "Enterprise Income Tax Law" was officially implemented in 2008. According to the data in the *China Foreign Investment Report*, the tax contribution rate of foreign-invested enterprises in 2002-2007 was consistently around 20%[140]. In 2016, foreign-invested enterprises contributed one-fifth of the tax revenue, while non-financial state-owned enterprises contributed 30% of the tax[141]. Therefore, from the perspective of taxation, foreign-invested enterprises are very important, but their importance should not be overrated.

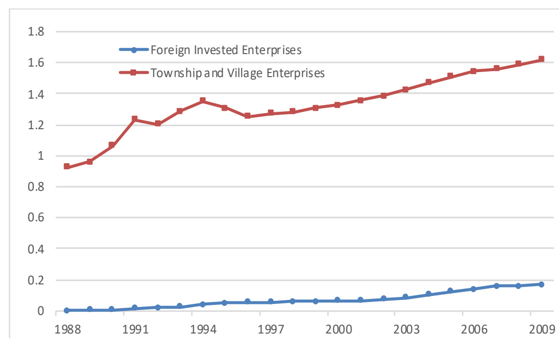
From the perspective of employment, the macro-impact of foreign-invested enterprises is still more limited. According to the employment data from 1998 to 2015, even before the rapid development of China's non-public ownership economy in 1992, **the number of urban foreign-invested enterprises (the sum of Hong Kong, Macao and Taiwanese investment enterprises and foreign-invested enterprises) was consistently smaller than that of urban private enterprises. Compared with the employment of rural township enterprises, it is even more insignificant.**

Chart 20 The proportion of foreign, private and collective employment in urban employment



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

Chart 21 Employment of foreign and township enterprises (100 million)



Source: National Bureau of Statistics, CEIC database, ACCEPT calculation

2. Opening up requires proactive management of the government

Opening up is a complex process involving all aspects of a country's economic activities. In order to make the economy develop healthily, the government (especially the central government) should actively manage and guide the process of opening up to the

[140] Xing Houyuan, 2017: *China Foreign Investment Report* (2017), PP18, http://images.mofcom.gov.cn/wzs/201804/20180416161221341.pdf [2018-11-13]
[141] Chen Deming, 2018: *Reform and Open Witness China's 40 Years of Intensification and Deep Impact on Global Value Chains*, International Trade Issues, 2018, 01, PP13-16.
Bai Tianliang, 2017: *These five years, the state-owned enterprises are starting to take off (see changes in the new normal)*, People's Daily, 10th edition, July 28, 2017, http://paper.people.com.cn/ Rmrb/html/2017-07/28/nw.D110000renmrb_20170728_1-10.htm [2018-11-13]

outside world, and must not "release it." Surveying the development of the past four decades, we believe that a sound and sustainable process of opening up requires the government to carefully manage at least the following three aspects: **first, the government should focus on cultivating the endogenous growth capacity of the economy; secondly, the government should help the microeconomic subjects alleviate the negative impact brought about by opening up; thirdly, the government should manage and constrain irrational short-term behaviors of microeconomic subjects and strictly manage capital flows and external debt.**

(1) the government should focus on cultivating the endogenous growth capacity of the economy

Since the beginning of the opening up, Chinese leaders have focused on cultivating and activating the vitality of the economy through opening up. Comrade Deng Xiaoping repeatedly emphasized that opening up is to "develop productive forces" and "lead domestic enterprises.[142]" Carefully combing the course of China's opening up to the outside world, it is not difficult to find that many policies are to serve the "hematopoietic function" of the economy itself. Four aspects are selected below for elaboration.

First, the central government attaches great importance to industrial transformation and upgrading in the opening up. As mentioned above, in the early 1980s, many foreign businessmen and some experts believed that "the conditions for industrial development in Shenzhen were poor, and that the products were mainly exported were contrary to the purpose of investors (the products entered the mainland market), and propose to build Shenzhen into a center of finance, commerce, foreign trade, and tourism.[143]" **However, the central government was not satisfied with the development of tertiary industries such as tourism and finance. Instead, it attached great importance to the development of manufacturing industries and firmly adhered to the industry-based strategy. It required Shenzhen to develop into a comprehensive export-oriented special zone based on industry[144].** To this end, the central government had introduced a series of measures to optimize the foreign business environment and realize the advantages of "low taxation, low labor costs, and low land use costs". **At the same time, the government has always attached importance to the planning of high-tech industries.** For example, Comrade Jiang Zemin proposed in 1984 that "the electronics industry should be developed[145]"; in March 1986, four famous Chinese scientists wrote to

[142] Deng Xiaoping, 1994: Implementation of Open Policy, Learning the World's Advanced Science and Technology, *Selected Works of Deng Xiaoping (Volume II)*, PP. 132-133; Deng Xiaoping, 1994: Opinions on Economic Work, *Selected Works of Deng Xiaoping (Vol. II)*, pp. 194-202.

[143] Gu Mu, 2009: *Gu Mu Memoirs*, Central Literature Publishing House, Chapter 6, PP. 359-371.

[144] Gu Mu, 2009: *Gu Mu Memoirs*, Central Literature Publishing House, Chapter 6, PP. 359-371.

[145] Jiang Zemin, 2006: Revitalizing the Electronic Industry, Promoting the Construction of the Four Modernizations, *Selected Works of Jiang Zemin (Volume I)*, People's Publishing House, http://cpc.people.com.cn/GB/64184/64185/180137/ 10818670.html [2018-11-14].

the national leaders to propose a high-tech development plan. In November of that year, China formulated and implemented the "National High-Tech Research and Development Program (863 Program)", with a total funding of RMB10 billion (which was 50 times the amount recommended by the four scientists, well reflecting the highest level of attention to high-end industries and technologies)[146]. Zhu Rongji emphasized in 1996 the upgrading of the processing trade industry represented by "three-plus-one trading-mix". He fully acknowledged the role of processing trade and believed that "it is necessary to develop to high-tech and increase new advantages. It is not possible to rely on the past 'three-plus-one trading-mix' ", encouraging enterprises to build their own factories on the basis of introducing technology and equipment.[147]

Second, the government (especially the central government) attaches great importance to the learning effect brought about by opening up. In his 1978 speech, Deng Xiaoping clearly stated that it is necessary to learn through opening up[148]. He believes that "we must inherit and learn the science and technology developed and all kinds of useful knowledge and experience accumulated by the people of all countries under the capitalist system"[149]. As mentioned above, leaders such as Jiang Zemin and Zhu Rongji have placed more emphasis on the role of learning. Jiang Zemin emphasized in his speech that "can continue to learn all the advanced things in the world, whether it can keep up with the trend of world development is a big problem that affects the success or failure of a country or a nation.[150]" Zhu Rongji also stressed the importance of learning. He once said that "without competition, there will be no progress. without opening up, how can advanced management experience, business methods, and technical means come in? AIG has introduced the practice of insurance agent in Shanghai, and it has developed very rapidly. PICC Shanghai Branch immediately adopted this method... But however smart the Shanghainese are, if the AIG does not come in, there is no model, and it will not lead to the practice of insurance agent.[151]"

In view of the above, it is not difficult to appreciate why China's top leaders have continued to open up to the outside world with great political courage and determination. As mentioned above, on the issue of joining the World Trade Organization, there were many different opinions at home and abroad, questioning and even dismissing

---

[146] Ma Yude, Hu Xueqin, 2009: *The "863 Program":200 million applied for and 10 billion approved*, China Economic Weekly, 2009, No. 02, PP. 61-62.
[147] Zhu Rongji, 2001: To adjust and improve the processing trade policy, *Selected Works of Zhu Rongji (Volume II)*, People's Publishing House, PP. 265-270.
[148] Deng Xiaoping, 1994: Implementation of an Open Policy, Learning the World's Advanced Science and Technology, *Selected Works of Deng Xiaoping (Volume II)*, pp. 132-133.
[149] Deng Xiaoping, 1994: Implementation of Open Policy, Learning the World's Advanced Science and Technology, *Selected Works of Deng Xiaoping (Volume II)*, pp. 168.
[150] Jiang Zemin, 2006: Continuing to push forward the construction of socialism with Chinese characteristics in the new century, *Selected Works of Jiang Zemin (Volume III)*, People's Publishing House, http://cpc.people.com.cn/GB/64184/64185/180139/10818611.html [2018-11-14]
[151] Zhu Rongji, 2001: Doing a Good Job in the Opening of the Financial Insurance Market, *Selected Works of Zhu Rongji (Volume II)*, People's Publishing House, pp. 298-302.

China's decision to join the WTO. Since joining the World Trade Organization, the Chinese government has made great efforts to promote China's full integration into the international economic system. Since 2001, the Chinese central government has cleared more than 2,300 laws, regulations and ministerial regulations, and local governments have cleared more than 190,000 local policies and regulations; the overall tariff rate dropped from 15.3% in 2001 to 9.8% in 2015 and the trade-weighted average tariff rate fell to 4.4%, significantly lower than emerging economies such as South Korea, India, and Indonesia, and developing countries, but close to the United States (2.4%) and the EU (3%); among the 160 service sub-sectors defined by the WTO, China has promised to open 100 of them, close to the average of the developed countries members (108). Today, China has improved its business environment and service quality through 12 free trade zones. These efforts can still be regarded as upgrading and developing itself in learning from abroad[152].

Third, Chinese leaders attach great importance to attracting foreign investment just because of the recognition that interaction with advanced foreign economies can bring about tremendous learning effects. From 1986 to 1987, then Vice Premier of the State Council Gu Mu personally coordinated the introduction of documents to optimize the foreign business environment. In order to prevent the policy from being out of shape during the implementation, he also presided over the formulation of 22 implementation rules. From October to December 1986, he personally hosted 12 related meetings[153]. In his speech, Zhu Rongji emphasized the importance of attracting foreign investment several times. When talking about the development of Shanghai, he once said that "the land in Pudong should not be too expensive to attract foreign investment and speed up", "(in order to attract major foreign investment projects) it is necessary to strengthen the confidence of investors and things must be done quickly or time will run out[154]". At the same time, the central government made attracting foreign investment as an important indicator for assessing local officials and guided local governments to do their utmost to provide services for foreign-invested enterprises. As mentioned above, Shenyang government had "levelled the hills and replaced the soil" in order to win the BMW project. In the survey, Jiangyin City's deputy mayor in charge of industry told us that in the 1990s, every time he went to Beijing or Shanghai for business trips, he organized companies to translate materials such as recent catalogues into English and Japanese. He would bring these materials and speak in person with the representatives of foreign enterprises.

Fourth, the Chinese government pays attention to coordinating the pace of opening up of different fields, giving domestic firms opportunities to develop while

[152] Based on the Press Office of the People's Republic of China, 2018: *White Paper on China and the World Trade Organization,* http://www.mofcom.gov.cn/article/i/jyjl/l/201808/20180802773208.shtml [2018-11- 14]; Press Office of the People's Republic of China, 2018: *Facts and China's Position on China-US Economic and Trade Friction*, http://www.xinhuanet.com/politics/2018-09/24/c_1123475272.htm [2018-11- 14].

[153] *Gu Mu Memoirs*, Chapter VI

[154] March 25, 1992

continuously opening up to introduce competition and promoting learning. For the purpose of improving the endogenous growth capacity of the domestic economy, the accommodation of imported goods was not achieved overnight. Otherwise, the domestic market would be flooded with foreign products in a short period of time, and it would be difficult for domestic enterprises to survive. However, if the protection is excessive, enterprises will not learn the experience of foreign advanced enterprises, they do not have to face the pressure of competition, and they are not likely to become bigger and stronger. As the Chinese ancient sayings says, "a country is doomed to perish if there is neither capable officials within nor enemy threats without".

When Zhu Rongji talked about the opening up of the financial industry in 1994, he stressed that "China's banks are far from the standards of commercial banks. If a large number of foreign banks are approved to do renminbi business at this time, the Chinese banks are actually forced to compete with them on an unequal footing[155]". **However, this kind of protection by the Chinese government is not "spoil". Instead, pressures are applied to domestic enterprises by means of measured opening up to promote their growth. Zhu Rongji said on the same occasion that "we must adopt a gradual approach. The protection of the Chinese government is not unconditional and permanent.[156]"** In fact, since 1994, China's financial services industry has gradually opened up, and tariffs in the automotive sector have begun to decline gradually. In 2018, **against the background of the rise of trade protectionism, China further relaxed or even removed the restrictions on the shareholding ratio of joint ventures in the financial and automobile sectors on the basis of the WTO commitments, and drastically reduced automobile import tariffs. These facts once again show that the protection of the Chinese government is temporary and conditional.**

(2) The governments has worked hard to absorb the shocks of opening up

As mentioned above, although the learning effect brought by opening up can greatly promote economic transformation and development, it will still have a major impact on some industries, regions and economic subjects. Imported machine tools and other mechanical equipment hit enterprises in Shenyang, causing nearly one million people to be laid off; China's local film industry was also swept by foreign companies such as Fujifilm and Kodak and eventually acquired as a whole; the export restrictions on Chinese textile products in Europe and the United States were further aggravated, causing the industry to further decline. In the face of these shocks, the central government and local governments shoulder their own responsibilities. On the one hand, they guarantee the basic welfare of laid-off workers through fiscal expenditures, and support the re-employment of laid-off workers through taxation and employment guidance ("textile air hostess" is the

---

[155] Zhu Rongji, 2011: Talks with U.S. Treasury Secretary Bentsen, *Records of Zhu Rongji's Speeches (Volume II)*, People's Publishing House, PP. 464-471.

[156] Zhu Rongji, 2011: Talks with U.S. Treasury Secretary Bentsen, *Records of Zhu Rongji's Speeches (Volume I)*, People's Publishing House, PP. 464-471.

epitome of it). On the other hand, the government has made efforts to help the industry to make profound adjustments. For example, Shenyang government organizes "Moving East Construction West" and the State Council promotes "Destroying Textile Spindles" to achieve liquidation as soon as possible and let the industry return to the right track.

(3) Guiding and constraining debts in foreign exchange and capital flows

In the process of opening up, the government should carefully manages capital flows and strictly limits the tendency of companies to over-borrow foreign debt to prevent any balance of payments crisis.

The Chinese government fully draws on the development experience of Latin America and other regions and dialectically understands the advantages and disadvantages of borrowing foreign debt. When China began to borrow foreign debts in 1979, Deng Xiaoping emphasized the issue of "solvency"[157]. In 1986, he further emphasized that **"external debt should be moderate and should not be borrowed excessively. Pay attention to the experience of these two aspects. The borrowing of foreign debt is not worrying, but it should mainly be used for developing production and it is not good if it is used to solve the fiscal deficit.[158]"** In 1997, Zhu Rongji also concluded that "our inflow of foreign capital is foreign investment in the form equipment investment and borrowings are basically medium- and long-term foreign debts, ..., so we can basically avoid the financial crisis throughout Asian countries.[159]" At the same time, the Chinese government regards foreign exchange reserves as a strategic resource and carefully allocates its use in the early stages of development. For example, Zhu Rongji repeatedly stressed that "**the precious foreign exchange cannot be used for importing consumer goods, including cars. The limited foreign exchange should be mainly used for the introduction of advanced technology, transforming weak sectors of the national economy and accelerating industrial restructuring.[160]"**

In fact, even in the field of direct investment, the government pays great attention to the issue of foreign exchange payments. An old leader of the State Planning Commission spoke to us about the background of the "foreign exchange balance" policy in the early stage of reform and opening up. The fundamental purpose of "foreign exchange balance" was to ensure that, in the context of foreign exchange shortages, there would be sufficient foreign exchange to ensure remittance of profits required by foreign investors. To this end, the State requires that the joint venture must have the ability to provide the foreign exchange required for the foreign investor's profit remittance, otherwise the project would

[157] Deng Xiaoping, 1994: Several Opinions on Economic Work, *Selected Works of Deng Xiaoping (Volume II)*, pp. 194-202.
[158] Deng Xiaoping, 1994: On Enterprise and Financial Reform, *Selected Works of Deng Xiaoping (Volume III)*, PP. 192-193.
[159] Zhu Rongji, 2011: Learn the lessons of the Asian financial crisis seriously, *Records of Zhu Rongji's Speeches (Volume II)*, People's Publishing House, PP. 505-511.
[160] Zhu Rongji, 2011: Opinions on the Current Economic Situation and Macroeconomic Regulation, *Records of Zhu Rongji's Speeches (Volume I)*, People's Publishing House, PP. 228-240.

not be approved. **A typical case is that the Daya Bay nuclear power plant project was once shelved because the foreign exchange balance problem could not be solved. Thereafter, Jieke Lin, the general manager of the US International Nuclear Energy Corporation, proposed to sell part of the electricity to Hong Kong to earn foreign exchange to solve the foreign exchange balance problem, and the joint venture project was finally implemented[161].** Although foreign exchange restrictions have limited consumer demand to a certain extent, it has helped the Chinese economy to achieve steady and sustainable development.

At the same time, the Chinese government has carefully formulated exchange rate policies, taking into account factors such as inflation, exports, and confidence to ensure a stable currency. In practice, the exchange rate is linked to the real economy and financial markets, and the equilibrium exchange rate in the academic sense cannot be calculated. Therefore, we must consider the price signals of the foreign exchange market transactions, but also consider the affordability of the real economy, and seize the key points to implement reforms. Zhu Rongji once stressed that "(a sharp change in exchange rate) not only brings greater risks and uncertainties to import and export enterprises, but also increases the pressure of domestic inflation and affects the confidence of overseas investors. Some people say that the value of the depreciated renminbi is beneficial to the future export, which I disagree. The experience of various countries proves that excessive depreciation of the domestic currency does not promote exports. Whether export is increased is not entirely determined by the exchange rate, but mainly by the variety, quality and service of the products. It is not necessarily a useful tool to restrict import. Even if US$1 is equivalent to RMB15, as expected by some people, certain areas or departments will still import 'Mercedes-Benz' cars.[162]"

Economic practice is the fountainhead of economic theory. Summarizing China's opening up process, we believe that learning is the most fundamental role of opening up; a stable and sustainable process of economic opening up requires careful management by the government. We believe that these two conclusions can be used for reference by other countries and are a useful complement to mainstream open economics and international trade theory.

[161] Wen Xuan, 2018: *Daya Bay Nuclear Power Plant: The birth of China's largest Sino-foreign joint venture in the early days of reform*, http://www.sohu.com/a/232147417_468637 [2018-11-14].
[162] Zhu Rongji, 2011: Strengthening Foreign Exchange Management, *Records of Zhu Rongji's Speeches (Volume I)*, People's Publishing House, PP. 346-351.

SECTION V

PROACTIVE MACROECONOMIC MANAGEMENT

I. Stylized Facts

1. Stable High-Speed Economic Growth for 40 Years

China's economy has achieved steady and high-speed growth since 1978. From 1978 to 2017, China's GDP grew from US$294.3 billion to US$10.2 trillion (constant 2010 US$), with an average annual real growth rate of over 9.5%. And during the same period, the per capita GNP grew from US$307 to US$7,329, with an average annual growth rate of 8.5%.

Meanwhile, China's real GDP growth volatility is significantly lower than other economies. Whether compared with other countries over the same period or other high-growth economies in history, the stability of China's economic growth over the past 40 years is very rare and can be called a miracle in human economic history.

The volatility of real economic growth rate can be divided into two parts: one is the change of potential economic growth rate; the other is the change of cyclical factors. We divide the economic growth rate of various countries from 1961 to 2017 into two parts - the trend and the residual - via Hodrick-Prescott filter. The trend can be used as an estimate of the potential economic growth rate, and the residual corresponds to the periodic economic fluctuations. We use the standard deviation of the cyclical fluctuation from 1961 to 2017 to the mean of the potential growth rate to represent the fluctuation of the real economic growth and find out that the fluctuation of China's economy is significantly less than that of developed countries and other developing countries (Table 1).

If we compare China's high-speed growth period (1978 - 2017) with that of Japan and South Korea (1961 - 1990) via the same approach, we find out that the volatility of China's real GDP growth is also relatively low (Table 2), especially considering that China experienced the Asian financial crisis and the 2008 global financial crisis during this period, it is even harder for China to achieve such a performance.

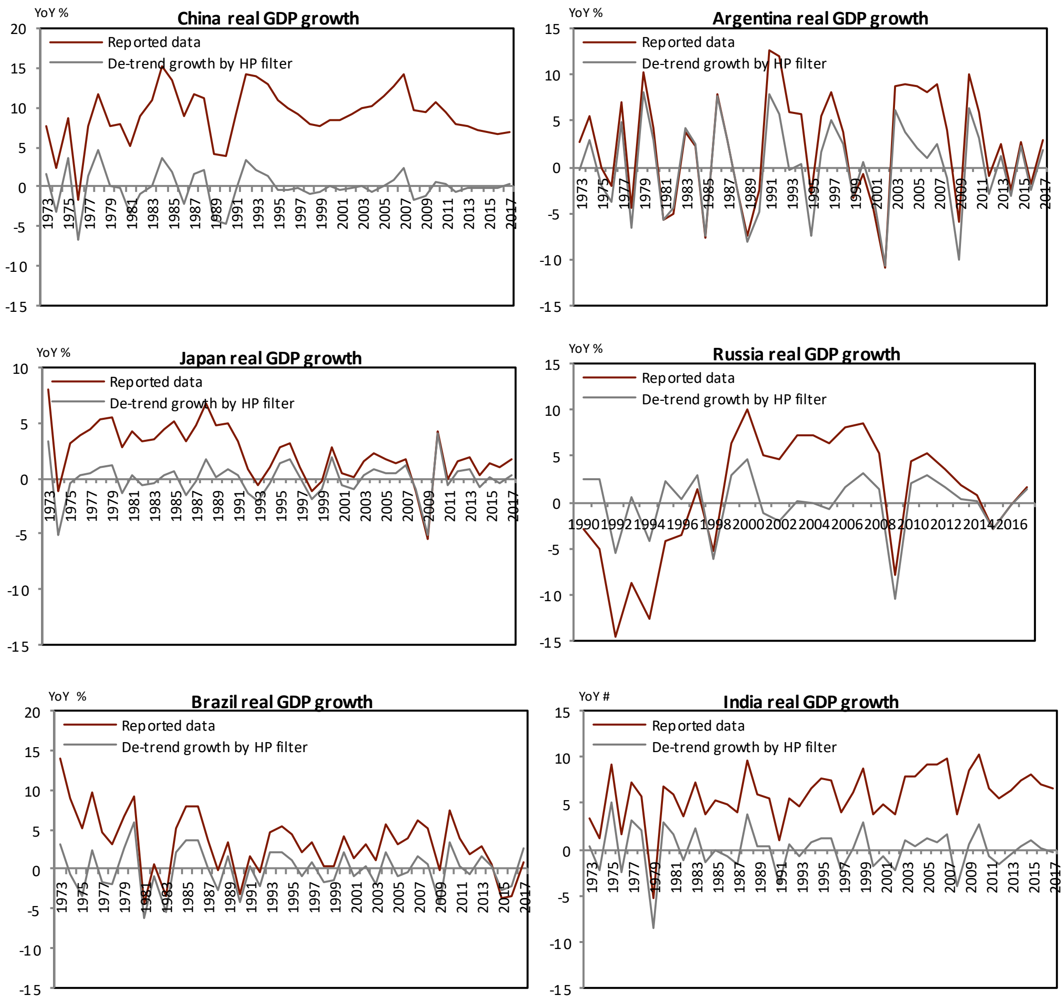
We can also take a longer view and compare China's economic growth since 1978 with that of Britain during the industrial revolution, Germany at the end of the 19th century, the United States from 1890 to 1920, and the Soviet Union from its foundation to its disintegration. It can be seen that, compared with these typical high growth periods in human history, China's economic performance since 1978 is extremely outstanding both in growth rate level and stability of growth (Fig. 2).

Table 1: Real GDP growth fluctuations of typical economies (1961-2017)

Country	Real GDP fluctuations
China	0.19
Middle-income countries	0.25
World	0.34
India	0.36
OECD countries	0.43
Korea	0.44
Europe	0.60
Britain	0.61
Japan	0.67
USA	0.68
Brazil	1.00
Argentina	2.21
Russia [3]	4.54

Note: (1) Source: WDI database of the World Bank, ACCEPT calculation. (2) The numerator of the real GDP fluctuation is the standard deviation of the residual of the real GDP y-on-y growth rate minus the HP filter trend (λ = 6.25) , and the denominator is the average of the trend of the real GDP y-on-y growth rate by HP filter trend (λ = 6.25). (3) Russia only includes the data of 1991 - 2017.

Figure 1 Real GDP growth fluctuations of typical economies



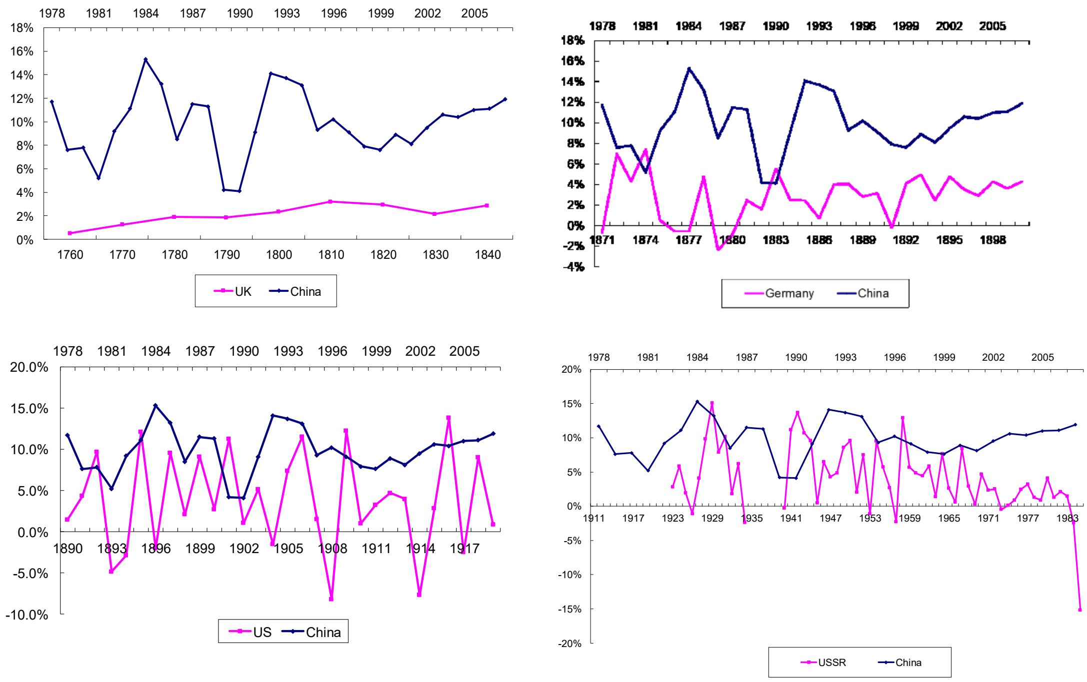
Source: WDI database of the World Bank, ACCEPT calculation.

Table 2: Real GDP growth fluctuations of China, Japan and Korea during their high-speed growth periods

Country	Real GDP fluctuations
China 1978-2017	0.19
Korea 1961-1990	0.27
Japan 1961-1990	0.37

Note: (1) Source: WDI database of the World Bank, ACCEPT calculation. (2) The numerator of the real GDP fluctuation is the standard deviation of the residual of the real GDP y-on-y growth rate minus the HP filter trend (λ = 6.25), the denominator is the average of the trend of the real GDP y-on-y growth rate by HP filter trend (λ = 6.25).

Figure 2 Comparison of Economic Growth Rate of Major Economies during their High Growth Periods in History: Britain, Germany, USA and Soviet Union



Source: World Economy: a Bicentennial Perspective, Angus Maddison,1996[1]

2. Successfully Suppressed High Inflation

Generally speaking, high growth is often accompanied by high inflation. In the period of rapid economic growth, investment growth rate is high, resulting in high demand for raw materials, which, to a certain extent, results in higher inflation pressure. Once inflation is too high, it often means that the real economy growth rate is higher than the potential growth rate, the production factors are used excessively, and then a recession of economic growth will follow. As a result, high inflation is often associated with fluctuations in economic growth, and from this perspective, stable economic growth often also means stable inflation.

But for China, high inflation pressure does not only come from the economic growth itself, but also from the more unique and complicated economic system during the transition period. Based on the experience, the planned economies usually have a supply shortage, the government is making the allocations, and the economy as a whole does not have a price or the price is artificially lowered. When transforming from the

1 Angus Maddison, World Economy: a Bicentennial Perspective [M], translated by Li Dewei and Gai Jianling, Reform Press, 1997.

planned economy to a market economy, the prices depressed by the policies tend to rise rapidly, which often can result in higher inflation. High inflation leads to the currency instability and is not conducive to economic growth. The excessive changes in relative prices likely cause the distortion of the social wealth allocation, or even serious social problems.

Compared to the other countries which are also making the transition, China did a better job in controlling its inflation. According to the data, China's average annual CPI growth during 1978-2016 was 5.3%, lower than that of India and Brazil over the same period, and lower than the inflation rates of Japan and South Korea during their respective high growth periods (Table 3). If we compare China with the economies that have experienced price reform, such as Russia and Poland, we can see that China's economy grew at a much faster pace than these economies, while its inflation was significantly lower. Specifically, China's post price reform CPI y-on-y growth during 1989-1993 were only 18%, 3.1%, 3.4%, 6.4% and 14.7%[2], while that of Russia over the 4 years post their price reform was over 100%[3], and that of Poland was also over 30%[4].

Table 3: Average Annual CPI Growth of Typical Countries

	Average annual CPI growth (geometric average)	Average annual CPI growth (arithmetic average)
USA（1986-2016）	2.60%	2.70%
China（1978-2017）	4.90%	4.90%
China（1986-2017）	5.00%	5.30%
Japan（1960-1980）	7.30%	7.20%
India（1986-2016）	7.50%	7.70%
Korea（1967-1990）	11.40%	11.60%
Russia（1986-2016）	38.00%	73.00%
Poland（1988-2000）	58.50%	87.90%
Brazil（1986-2016）	99.40%	361.20%

Note: China's data is from the National Bureau of Statistics, while the data of other countries are from the WDI database of the World Bank.

3. China's Contribution to World Economic Growth Continues to Increase

2 Source: Haver database.

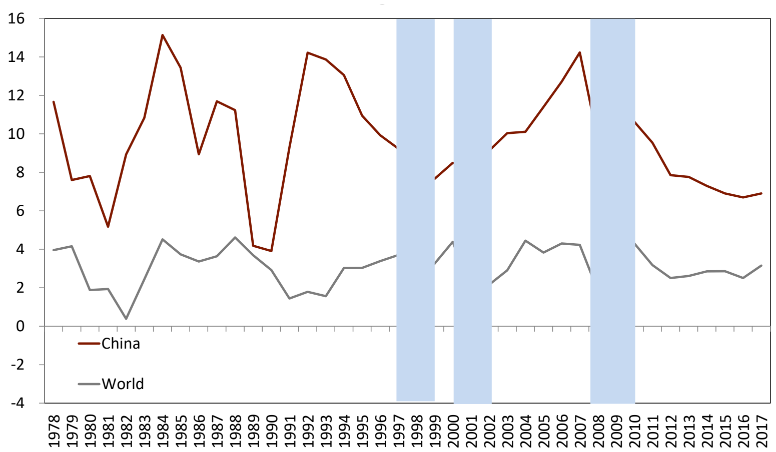
3 Source: Haver database.

4 Source: Haver database.

Over its 40 years of reform and opening up, China has not experienced a real economic crisis and has responded to the external shocks successfully, which is a great contribution to the world economic stability. China's real GDP grew by 3.9% in 1990, the lowest since the reform and opening up, but China has never experienced the total economy contraction (Figure 3). On the other hand, Japan, Korea, Russia, Brazil and almost all other main countries all experienced negative economic growth after the War. The real GDPs of Korea and Japan also experienced negative y-on-y growth even during their high-speed growth periods over 1960 – 1980.

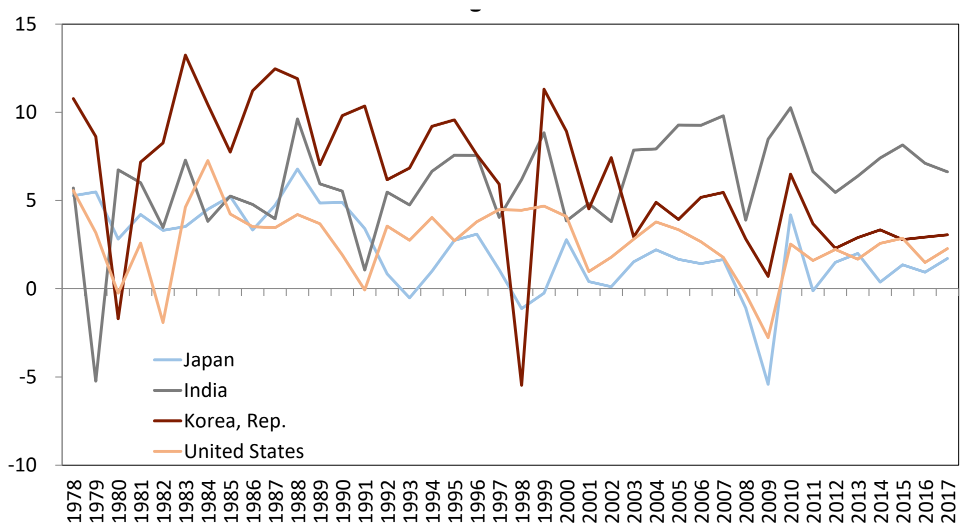
In addition to stabilize the domestic economy, China has also made its contribution to the world economic stability. China's contribution to the world economic growth has steadily increased since its reform and opening up, from 5.11 % in 1980 - 1989, to 12.33 % in 1990 - 1999, 24.83 % in 2000 - 2009 and 28.75 % in 2010 - 2017. When looking at 1978-2017 as a single period, China's contribution was 18.35 % (Table 4). During the Asian financial crisis and global financial crises, China's role as a "*stabilizer*" for the global economic growth was particularly prominent. During the Asian financial crisis in 1998, China guided the recovery of total domestic demand through active fiscal policy and sound monetary policy, while the RMB did not depreciate together with other currencies and made contributions to the stability of the Asian monetary system. In 2008, global economy was hit by the US subprime mortgage crisis. Major economies like the US, eurozone and Japan all experienced negative growth. Against this background, China's recovery in 2009 made an important contribution in stabilizing the global economy.

Figure 3 Real GDP growth of China and the World (%)



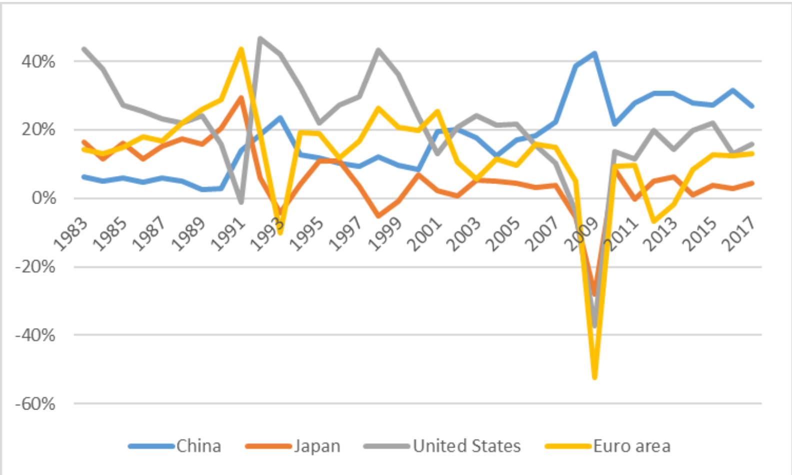
Source: WDI database of the World Bank.

Figure 4 Real GDP growth of the US, Japan, India and South Korea (1978-2017, %)



Source: WDI database of the World Bank.

Figure 5 Contributions of US, Europe, China and Japan to the world economic growth



Source: WDI database of the World Bank.

Table 4 Contributions of US, Europe, China and Japan to the world economic growth

	United States	Euro area	China	Japan
1978-2017	20.38%	13.07%	18.35%	6.27%
1980-1989	26.43%	17.94%	5.11%	16.37%
1990-1999	31.50%	18.24%	12.33%	5.01%
2000-2009	14.26%	8.82%	24.83%	0.92%
2010-2017	16.58%	7.42%	28.75%	3.23%

Source: WDI database of the World Bank

4. Problems: Causing Disproportionate Harm to Private Enterprises During Macroeconomic Management

During the proactive macroeconomic management via "*the visible hand*", the government often treats private companies unfairly, which is mainly reflected in the following two aspects:

First, more burdens of reducing redundant investment and "*removing excess capacity*" have been assumed by the private companies. The typical case has been seen in the steel industry: in 2016, 140 steel companies assumed the task of removing excess capacity, 88.6% of them were private companies. According the statistics, among the total removed excess capacity, private companies accounted for 65%, while SOEs accounted for only 35%.[5] Take Hebei Province, an important base for the steel industry, for example. 97% of the 16 million tons of excess capacity removal in 2016 was assumed by the private companies.[6] The task of removing excess capacity in the coal industry also falls more on the shoulders of the private coal mines, while the situation is more complicated than that of the steel sector - compared with SOE coal mines, private coal mines are mostly small and medium-sized ones, prone to accidents, and lag behind in complying with environmental protection criteria. The key targets to remove excess coal capacity in 2016 were small and medium-sized coal mines with an annual output at or below 300,000 tons. "Such coal mines accounted for only about 15% of the country's coal production but more than 50% of the coal mine accidents", and private coal mines are mostly in small and medium size.[7]

---

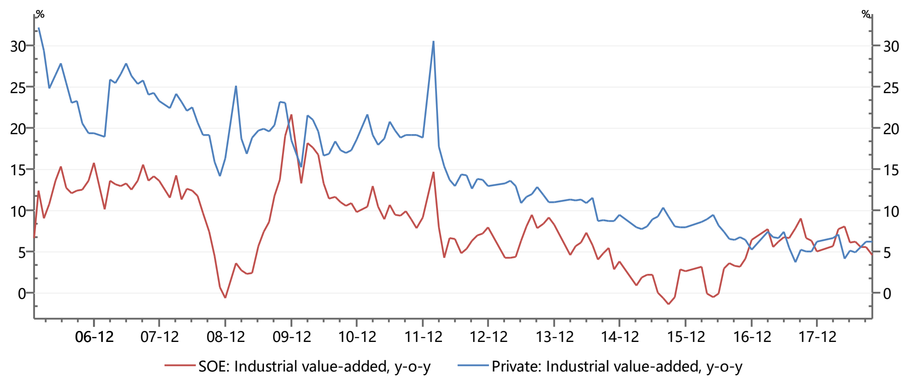
[5] Source: Beijing Steel Information Network, http://news.steelcn.cn/a/120/20160907/874650DCC8FC2C.html.

[6] Source: Caixin Media, http://hefan.blog.caixin.com/archives/157890.

[7] Source: State Coalchem Network, http://www.coalchem.org.cn/dujia/html/800214/177642.html.

Second, during the economic downturn, bank loans and other resources mainly flow into SOEs, and they enjoyed far more benefits than private companies. For example, when responding to the global financial crisis in 2009, SOEs received much support from the so-called "*RMB4 trillion*" stimulation package and got recovered very quickly, while the private companies were less benefited and got recovered more slowly (Figure 6). A similar situation occurred during the proactive macroeconomic management in 2015.

Figure 6 SOEs recovered faster than private companies during recession as a result of macroeconomic management



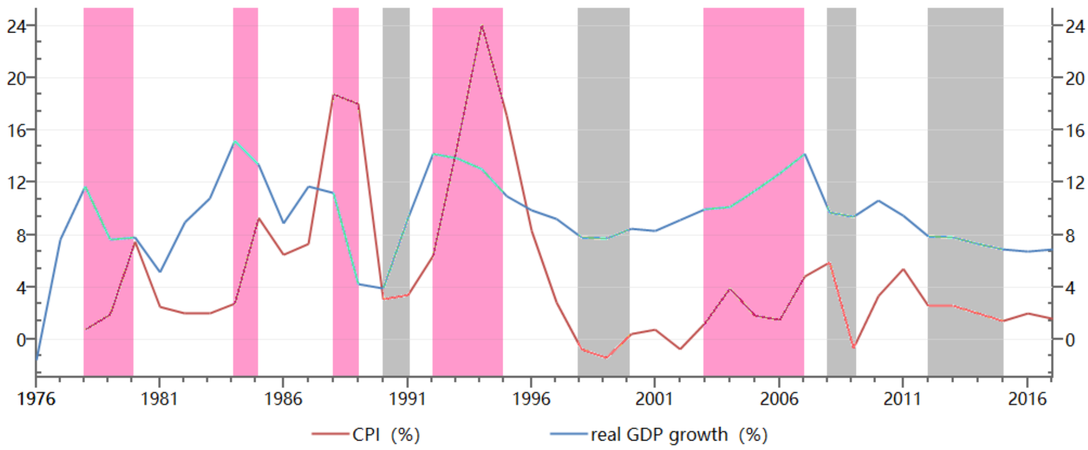
Source: WIND database.

II. History Overview

Since the reform and opening up in 1978, China has experienced the transition from a planned economy to a market economy; the leap from a closed economy to an open economy; the complicated process from a shortage economy to an economy with basic supply and demand balance and then to an economy with overcapacity in several sectors; the large-scale urbanization involving hundreds of millions of people; the rapid development of infrastructure and real estate construction; the Asian financial crisis in 1997 and the global financial crisis in 2008 and etc. Under the complicated and ever-changing internal and external environments, one of the important reasons why China has maintained a stable and high-speed economic growth and a stable price for 40 years is its overall successful proactive macroeconomic management.

In the following part, we will briefly discuss the backgrounds, measures and effects of the proactive macroeconomic managements over several typical periods in chronological order. These typical periods include (Figure 7): the economic overheating period in the early days of reform and opening up (1978 to 1980); the economic overheating period around 1985; the economic overheating period from 1988 to 1989; the economic overheating period post Deng Xiaoping's "southern tour speeches" in 1992; the period post the outbreak of Asian financial crisis in 1998; the economic overheating period from 2003 to 2007; the period post the outbreak of the global financial crisis in 2008 and the period of continued economic growth slowdown from 2012 to 2016.

Figure 7 Basic Course of the Chinese government's proactive macroeconomic management



Note: (1) The red shadow represents the economic "overheating" period, and the grey shadow represents the economic "downturn" period; (2) The figure is drawn by the author; and the data is from the WIND database.

1. The Economic Overheating Period in the Early Days of Reform and Opening Up (1978 to 1980)

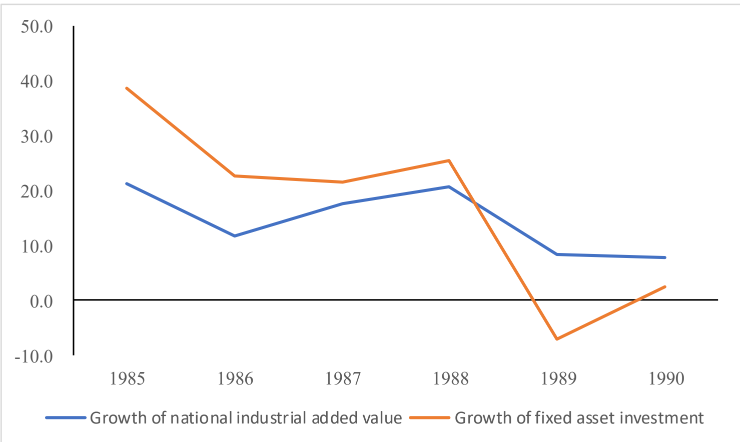
(1) Macroeconomic background

At the end of 1978, China decided to implement the strategy of reform and opening up and speed up the process of modernization. The long-suppressed enthusiasm for economic development during the "*Cultural Revolution*" was stimulated and quickly released, the whole country was highly enthusiastic about the economic construction, and the national economy experienced recovery growth and overheating. The key features are as follows:

The first is that the economic growth has accelerated significantly. Real GDP grew by 11.7 %, 7.6 % and 7.8 % respectively from 1978 to 1980. Both the investment and consumer demand saw great increase, which led to the supply shortage in investment and consumer sector.

The second is that the investment in fixed assets has expanded dramatically. On the one hand, the scale of infrastructure development has expanded, and investment has been increased again and again. The number of large and medium-sized projects under construction increased from over 1,400 in 1977 to over 1,700 in 1978, and some products with less demand accumulated large inventory due to uninformed and blind production. In order to speed up economic construction, the foreign advanced equipment import increased in a large scale. In just a few months after the State Council Theory-Discussing Meeting in September 1978, the equipment for nine large chemical projects worth of RMB16 billion, another 22 projects including Baosteel and 100 sets of comprehensive coal mining equipment worth of RMB60 billion were imported.[8] The large-scale equipment introduction also stimulated domestic demand for investment in their supporting and commentary sectors, accelerated the fixed asset investment growth nationwide. Industrial production saw a fast-growing dynamic, with the actual growth rate of industrial added value reaching at 16.4 %, 8.7 % and 12.6 % respectively from 1978 to 1980 (Figure 8). On the other hand, consumer demand began to explode. The increase in wage and welfare for urban workers resulted in an increase in residents' income and purchasing power. From 1978 to 1980, the total retail sales of consumer goods nationwide increased by 8.8 %, 15.5 % and 18.9 % respectively.

Figure 8 The real growth of industrial added value and the growth of total retail sales during 1978-1982 (%)

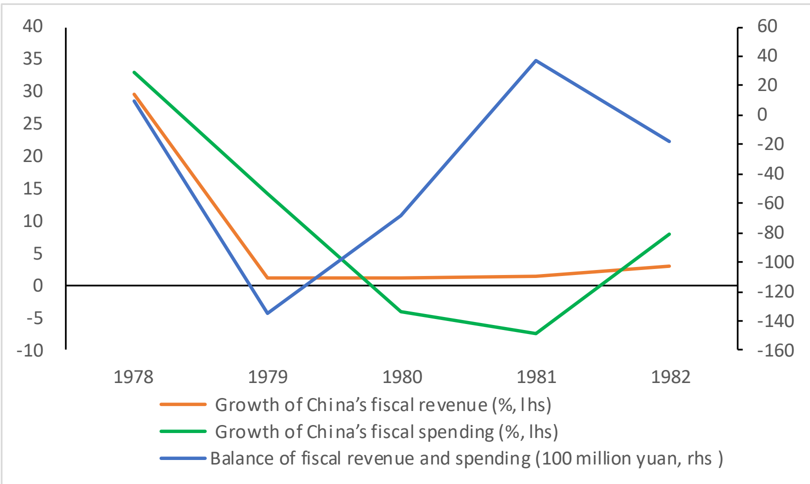


Source: CEInet Statistics Database

[8] Wei Jianing. "The Course of Proactive macroeconomic management in China since the Reform and Opening up (I)[J]. Tide of the Century, 2008(5): 8-14.

Third, the prices hiked dramatically. The imbalances between agriculture and industry, the ratio of light to heavy industry makes agricultural and light industrial products in short supply to fully meet the needs of the people. However, the sharp increase in the residents' income and purchasing power led to increased consumer demand, and the price which has been suppressed for a long time in the planned economy has been released, both fueled the sharp rise in price. The investment and consumer increase led to the expansion of fiscal spending and fiscal deficit, and the overdraft of fiscal funds to banking system led to the expansion of money supply, thus increasing the pressure of inflation. The national budget recorded a deficit of RMB20.6 billion in 1979 from a surplus of RMB1.01 billion in 1978, with deficit ratio of 5.2%. From 1978 to 1980, the growth of fiscal revenue and spending both declined significantly. The balance of fiscal revenue and spending changed from RMB1.017 billion in surplus in 1978 to RMB13.541 billion and RMB-6.890 billion in deficit in 1979 and 1980 (Figure 9). Cash (M0) supply increased sharply by 9.7% in 1978 , and it was up to 24.4% in 1979 and 25.5% in 1980. The credit balance of the banking system increased by 10.2 % in 1979 and up by 18.3% in 1980. [9] The consumer price index rose by 0.7% in 1978 and was up by 7.5% in 1980, the peak of that period. From 1978 to 1980, the commodity retail price index increased by 0.7% in 1978 and 6% in 1980, the highest of that period.

Figure 9 Growth of China's fiscal revenue and spending and its balance during 1978-1982



Source: Comprehensive Statistical Data and Materials on 60 Years of New China

[9] Ibid.

(2) Proactive Macroeconomic Management Measures

In order to cope with the economic overheating, the government consecutively put forward the “Eight Character Guiding Principle” – “*adjustment, reform, rectification, and improvement*”, and the twelve principles to initiate the regulation in 1979.[10] Since this overheating occurred in the early stage of China’s market-oriented reform, the proactive macroeconomic management mainly adopts the approach that “ *planned economy is the main factor and the market economy as an auxiliary*”.

One is to curtail the fixed assets investment and reduce investment demand. It is proposed that the infrastructure development size must match with the country’s financial and material resources to avoid the uninformed and blind expansion of infrastructure development. To this end, the infrastructure development sizes were reduced, and a number of unqualified construction projects were suspended and postponed. The infrastructure development scales were reduced relentlessly so that it will be commensurate with the supply capacity of steel, cement, timber, equipment and capital.

The second is to adjust the structure of the national economy and improve the supply of agricultural and light industrial products. Efforts were made to adjust the structure of agricultural and industrial sectors, to take the development of the agriculture and increase the support to and investment in agriculture as a priority; to better balance the light and heavy industries in a coordinated approach, develop the light and textile industry, properly increase the production and capacity construction of light industry and underweight the investment in steel and heavy industry; speed up the production and capacity construction of coal, power, oil, transportation and building materials to ensure to provide adequate supply of production materials and infrastructure to other industries.

The third is to tighten liquidity and strictly control bank credit. In 1981, the State Council issued “*the Decision on Strengthening Credit Management and Strictly Controlling the Issuance of Currency*”, which required the government authorities to control the currency issuance, strictly initiate credit management and try to realize the balance of credit. All regions and departments are required to strictly implement the credit plan and currency issuance plan approved by the government and any breaks would not be waivered. Banks and their branches should review and grant loans according to the credit policy and the use of proceeds. Inventories of materials and commodities should be downsized to reduce the use of working capital. The principle

---

[10] Li Xiannian’s Speech at the Central Government Work Conference, April 5, 1979.

of making production and procurement based on the demand should be strictly followed, Banks should refuse to grant loans to the companies producing and procuring the products and materials without adequate demand.

(3) Effectiveness of Proactive Macroeconomic Management

By 1981, this round of economic overheating was basically under control and the proactive macroeconomic management had achieved good results. The real GDP growth in 1981 slowed down to 5.1%, while the fixed asset investment of the whole country grew by 5.2%. The dynamics of price rising was also clearly under control, with CPI growth back to 2.5% and PPI growth back to 2.4 %.

However, although the infrastructure investment within the state budget was basically under control, but those out of the state budget were far beyond the plan, and uninformed and redundant construction has not been fully under control. [11]

2. The Economic Overheating Period around 1985

(1) Macroeconomic background

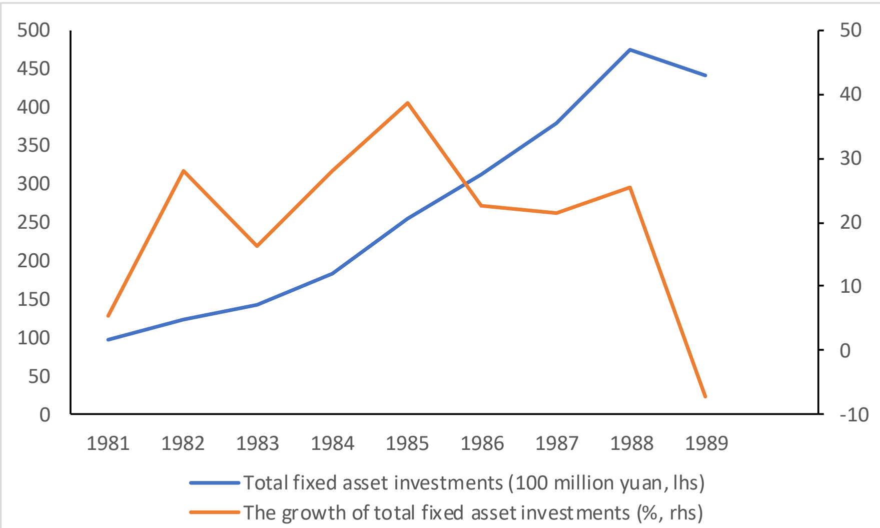
In 1982, the *12th CPC National Congress* set the goal of having the annual industrial and agricultural output quadrupled by the end of the 20th century. Local governments raced to realize the goal before the deadline or at fast speed, or surpass the goal, and applied for expanding the production and investment scale, and the blind investment boom reappears, resulting in the total demand exceeding the total supply. From 1984 to 1985, China's real GDP grew at a high rate, reaching 15.2 % and 13.4 % respectively. The key features of this round of macroeconomic overheating are as follows:

First, nationwide fixed asset investment scale increased dramatically under the investment boom when each one was competing for investment. The allowance of more discretion to the local governments, companies and banks has released investment constraints, and the blind and redundant investments by various departments and regions resulted in excessive overall sizes of the projects under construction. On the one hand, China initiated the reform of "changing the appropriation of funds into granting loans" in 1985, which gave the local governments and companies more discretion in making investment and production decisions, resulting in a large number

[11] Wang Tongsan. All previous proactive macroeconomic management since the reform and opening up and their take-aways. [J]. New Finance, 2005(07): 9-13.

of infrastructures, production and processing projects under construction. On the other hand, the fund allocation relationship between the central bank and commercial banks changed from the previous planned allocation to the credit granting, and the loan granting by the commercial bank in the next year would set based on the actual loan granted in the previous year. To some extent, this measure encouraged commercial banks to lend aggressively and provided funds for the investment expansion. In 1984 and 1985, China's total fixed asset investment reached RMB183.3 billion and RMB254.3 billion respectively or grew by 28.2% and 38.8% respectively (Figure 10). The sharp increase in investment spending caused a fiscal deficit, while the expansion of the credit gap has increased the issuance of currency, both of which have contributed to the price hike.

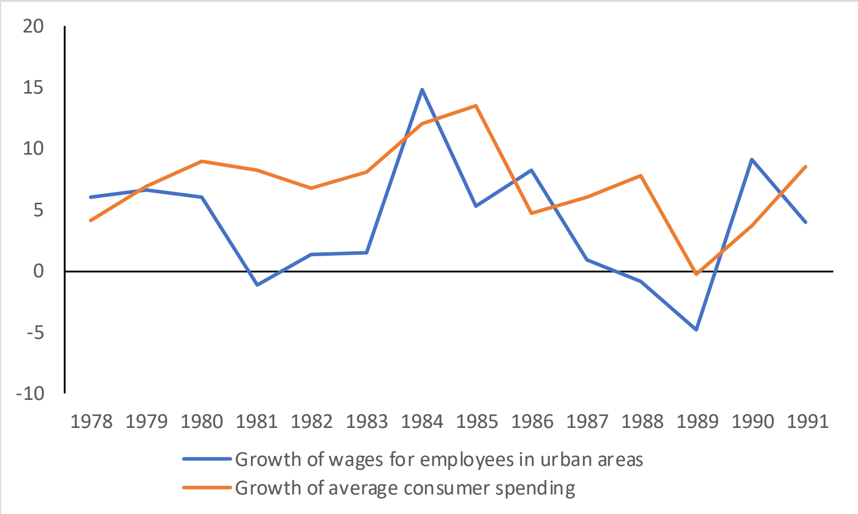
Figure 10 China's total fixed asset investments and their growth during 1981-1989



Source: Comprehensive Statistical Data and Materials on 65 Years of New China

Second, the wage system reform released a large amount of consumer demand in a short time. The wage system reform within companies promoted by the state from 1984 to 1985 gave more discretion to the companies when determining the wages for their works. Some government agencies, organizations, enterprises and institutions raised wages and welfare for their staff and increased social purchasing power in a short time. The average wage of employees in urban areas nationwide increased by 14.8% y-on-y in 1984 and the national consumer spending grew by 12% and 13.5% respectively in 1984 and 1985 (Figure 11). However, during the transition period from planned economy to a market economy, the production and supply capacity was relatively stable, while the expansion of consumer demand in a short period of time resulted in tight market supply and price rising. The total retail sales of goods increased by 18.5% and 27.5% respectively in 1984 and 1985, while CPI increased from 2.7% to 9.3%, and PPI increased from 2.8% to 8.8%. The dynamics indicated an obvious inflation.

Figure 11: Growth of wages for employees in urban areas and growth of average consumer spending from 1978 to 1991 (%)



Source: Comprehensive Statistical Data and Materials on 65 Years of New China

(2) Proactive Macroeconomic Management Measures

In view of the macroeconomic overheating again promoted by the expansion both in investment and consumption, the government has mainly adopted administrative orders such as investment control, credit tightening, purchasing power restriction and price supervision enhancing to directly control and curtail total domestic demand; meanwhile it also start to initiate indirect control by using the market-oriented measures such as adjusting reserve requirement ratio (RRR) and deposit and loan interest rate. At the same time, the government authorities wasted no time in promoting the reform of the economic system to release economic vitality and lay the foundation for bringing in more market-oriented measures into full play during future proactive macroeconomic managements.

One is to control and reduce the fixed asset investment. It is required the principle that the infrastructure investment must be commensurate with national strength must be observed when initiating stringent control over the fixed asset investment and preventing the blind pursuit of excessively high growth rates. In 1985, the State Council issued the *Notice on Controlling the Scale of Investment in Fixed Assets*, which required that the fixed asset investment must be strictly controlled, and chief executives of all departments and regions should be held accountable for any break, and the fix asset investments should be reviewed each quarter and a review report should be submitted to the State Council. A policy of "*Three Guarantees and Three Restrictions*" concerning infrastructure development was promulgated, that is to guarantee the construction within the plan and to restrict unplanned; to guarantee the productive constructions and restrict the non-productive constructions; and to guarantee the key constructions and restrict the non-key constructions.[12]

Second is to tighten monetary policy and control credit. It is required to eliminate the fiscal deficit, the credit gap within the banking system and achieve a basic balance between fiscal revenue and spending and the balance of credit. It is stipulated that infrastructure development and technological upgrading projects financed by bank loans should be carried out by stringently following the state plan. Without the approval of the State Council, no unplanned loans can be granted, and the investment scale could not be expanded by using the bank loans in the name of self-financing. In April 1985, the State Council issued the *Notice on the Approval and Circulation of the Regulations of the People's Bank of China (PBoC) on Controlling the Scale of the Loans* in 1985, which stipulated the loan and currency issuance limits, and the loans to be granted should be strictly limited to RMB71 billion. The infrastructure development loans issued by commercial banks should be controlled by projects and the state plans should be observed. In addition, PBoC also adjusted the interest rates of some deposits and loans and conducted credit checks.

The third is to curb consumption increase and strengthen price supervision. In February 1985, the State Council issued "*Urgent Notice on Strictly Controlling the Purchasing Power of Companies and Institutions*" to limit the spending power expansion . The Notice first required the authority to approve the specific goods be properly centralized, and the purchasing power of companies and institutions be firmly reduced – down by 20% y-on-y. Secondly, the categories of goods to which the companies and institutions would have no access were redefined and changed from 31 to 17. Thirdly, the systems and measures for strengthening macro-management of consumption funds shall be further strengthened so that the growth of consumption funds will be commensurate with the development of production and the increase of national income. In addition, the price administration shall be enhanced, and the unauthorized price hikes shall be restricted. In March 1985, the State Council issued an

[12] *Report on the Work of the Government* (1987), by Premier Zhao Ziyang of the State Council at the fifth session of the Sixth National People's Congress on March 25, 1987.

urgent notice requesting all the provinces, regions and municipalities strengthen price control, supervision and inspection to resolutely stop the unauthorized price hikes.

Meanwhile, efforts were made to vigorously promote the economic system reform. Among them, the promotion of the household responsibility system fundamentally changed the old system that restricted the development of agricultural productivity, improved the efficiency and supply of agricultural production; the enterprise reform was further promoted and the enterprise operation mechanism combining accountability, authority and benefit into one was established and refined; The reform of the financial system accelerated the market-oriented allocation of financial elements.[13] The reform of the employment and wage system of enterprises helped rationalize the distribution within the enterprises and promote the coordinated development of the light and heavy industries. The promotion and improvement of various forms of investment responsibility systems improved the investment efficiency.[14] These institutional reforms promoted during this period not only released vitality for China's future economic growth, but also laid a foundation for the government to make better use of market-oriented measures in initiating proactive macroeconomic management in the future.

(3) Effectiveness of Proactive Macroeconomic Management

With the implementation a series of tightening macro policies, this round of economic overheating was well under control. China's real GDP growth dropped to 8.9% in 1986, and the CPI growth dropped to 6.5 %. On the one hand, the situation of the infrastructure development expansion was under control. The fixed asset investment grew by 22.7% and 21.5% respectively in 1986 and 1987 vs. 28.2% and 38.8% respectively in 1984 and 1985. In 1986, the infrastructure investment by the entities owned by the whole people increased by 7.3% y-on-y, much lower than the 44.6 % growth in 1985, but the growth of unplanned fixed asset investment was not well under control. On the other hand, the situation of excessive consumption was alleviated, and the growth of the total retail sales of consumer goods dropped to 15%. In addition, the

---

[13] Include the development of various financing instruments; make the financial institutions operate like an enterprise on a conditional basis so as to gradually make them operate independently and responsible for their own profits and losses; reform the interest rate system of the banks, gradually rationalize the deposit and loan interest rate and implement different interest rates based on the length of the term and floating interest rate; improve the management approaches via which the enterprises managing their liquidity and change the practices that banks responsible for supply funds for the enterprises; gradually implement centralized and unified management of foreign exchange and foreign debt, and invigorate foreign exchange funds; develop financing markets at different levels and sizes step by step.

[14] Ibid.

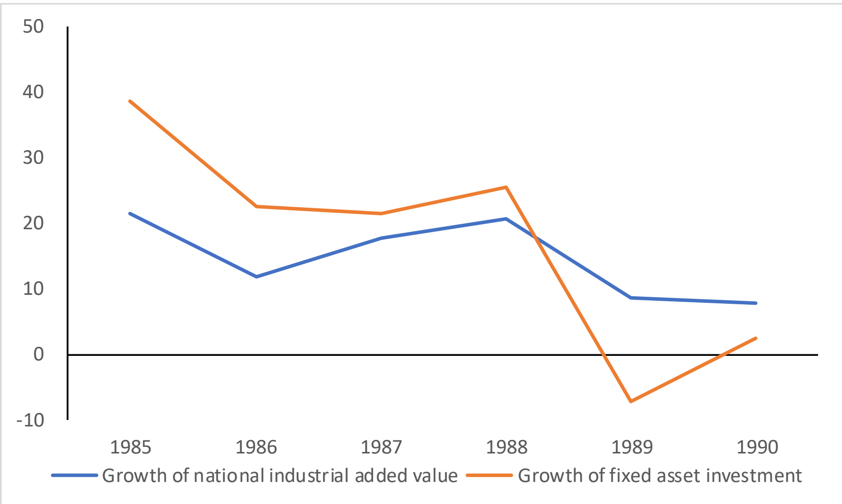
growth of credit expansion also declined. The growth of RMB loans granted by the financial institutions dropped from 33.1 % in 1984 to 31.4 % in 1986 and 20.5 % in 1987.

3. The Economic Overheating Period from 1988 to 1989

(1) Macroeconomic background

Starting from 1988, China's economy has experienced a strong rebound in terms of overheating and inflation. On the one hand, economic growth and investment growth have rebounded rapidly. In 1988, the real GDP growth reached 11.2%, while the real growth of national industrial output reached 20.8%. China's fixed asset investment grew by 25.4% in 1998 (Figure 12). On the other hand, the overall price increased by double digits. The CPI grew by 18.8% and 18% respectively in 1988 and 1989. The main reasons for this round of economic overheating are as follows.

Figure 12: Growth of national industrial added value and fixed asset investment(%)



Source: Comprehensive Statistical Data and Materials on 60 Years of New China

First, the loosening of the credit eased the constraint on the funds for investment. During the previous round of overheating, the fixed asset investments like infrastructure investments took a large part of the credit resources, enterprises faced tight liquidity and production activities were affected to some extent due to impact of the tightening credit policy. The real growth of industrial added value dropped 9.6% in 1986 from 18% in 1985. In order to prevent the continued slowdown of industrial sector, the central bank loosened the release of money and credit in 1986, which promoted the subsequent investment expansion and the rise of inflation.

Second, the introduction of "Breakthrough in Prices" intensified price rises and enhanced inflation expectations. With the economic overheating already on the horizon, the price and wage reforms during the "Breakthrough in Prices" in 1988 caused a sharp rise in commodity prices. Prior to the "Breakthrough in Prices" reform, the planned and controlled price of the same product was significantly lower than its price freely determined by the market, while the sudden liberalization of price control and the merging of the double-track price system into one track pushed up the general price level and formed a strong inflation expectation. In 1988, "a wave of panic buying" occurred, basic consumer goods and the inflation resilient goods all became the targets of the panic buying, the goods like TV sets, refrigerators, washing machines, grain and cotton fabrics were in short supply. The rapid growth of social purchasing power surpassed the growth of commodity supply in a short period of time. In 1988, the total retail sales of consumer goods all over the country grew by 27.8%. The retail price soared, with Retail Price Index reaching 18.5% and 17.8% in 1988 and 1989 respectively. And the spike of inflation is imminent.

Third, the excessive expansion of investment demand aggravated the bottleneck effect of raw material supply. The problem caused by too many large fixed asset investment projects in the early stage emerged in 1986. The expansion of infrastructure investment demand stretched the supply capacity of energy, raw materials and transportation and pushed up the price of production materials. Moreover, the failure of having the previous expansion of the unbudgeted investment under full control also exerted pressure on the overheating of the economy.

(2) Proactive Macroeconomic Management Measures

In order to cope with the strong inflation expectation and excess growth in fixed asset investment, the government implemented tightening fiscal and credit policies in order to sharply reduce the total demand as well actively expanded effective supply as to alleviate the problem that the total social demand is larger than the total supply and achieve the basic balance in finance, credit, raw materials and foreign exchange. In this round of proactive macroeconomic management, the government still mainly adopted administrative measures, but also used some market-oriented measures such as interest rates and deepened the reform of the economic system in the regulation process. The specific control measures are as follows:

One is to drastically reduce the scale of infrastructure development and rectify the economic order. On the one hand, in order to reduce the demand expansion resulted from the increase of the number of the investment projects and the scale of such projects, the central government issued the order to compress, clear and stop making the fixed asset investments resolutely so as to be commensurate with the actual basic supply capacity. In 1988, the scale of fixed asset investments was significantly reduced, and the approval of unplanned construction projects was suspended. From end of September 1988 to the end of February 1989, 18,000 fix asset investment projects were suspended or postponed nationwide, and RMB64.7 billion was cut from the budget of these projects over the next few years after 1988, accounting for 12% of the remaining workload of all projects. [15] On the other hand, efforts have been made to rectify the economic order, overcome the serious chaos in the fields of production, construction, circulation and distribution. And major inspections on tax, financials and price were conducted.

Second is strictly control the purchasing power of the institutions and companies. In order to control the ability of institutions and companies to purchase the best-sellers and prevent the consumer demand from continuing to expand substantially, on the one hand, administrative orders were used to have some special goods under control. The categories of special goods controlled by the government increased from 19 to 32. On the other hand, efforts were made to strictly control the excessive growth of the funds available for consumption so as to make it adapt to the growth of national income.

Third is to tight the credit and increase savings. Tight monetary policy was implemented to strictly control the credit scale and adjust and optimize the credit structure. Bank's savings rate was raised, the measures like value-preserved savings and saving with prizes were offered, and some economic leverages were implemented so as to increase savings and reduce consumption.

Four is to increase effective supply the non-discretionary goods to alleviate their supply and demand imbalance. While taking measures to curtail the aggregate demand, the measures to expand the supply of goods to meet the basic demand were also implemented at the same time. Prudent efforts were made to adjust the industrial structure and product supply, from many aspects, such as money-supply, materials, foreign exchange and transportation to guarantee the production and yield increase of grain, cotton, oil and other agricultural products to support the production and supply

---

[15] "*Resolutely Implementing the Policy of Improvement and Rectification and Deepening Reform* ", Report of Premier Li Peng on Government Work at the Second Session of the Seventh National People's Congress on March 20, 1989.

of the daily use products to meet the needs of the people in their daily life,[16] so as to alleviate the supply shortage relative to their high demand.

Five is to deepen the reform of economic system during proactive macroeconomic management. In 1989, the Fifth Plenary Session of the 13th Central Committee adopted the *Decision of the CPC Central Committee on Further Improvement and Rectification and Deepening Reform*, which requires that attention be attached to promoting and deepening the economic system reform, while making efforts to deal with and rectify the inflation, including making and amending the necessary economic laws and regulations; gradually promoting the institutional reform concerning planning, investment, materials, finance, foreign trade; taking initial measures to strengthen the management of the fiscal, taxation, banking, prices, auditing, customs, industrial and commercial administration aspects and etc.[17]

(3) Effectiveness of Proactive Macroeconomic Management

This round of regulation curbed domestic inflation very quickly, economic growth slowed down sharply, and the dynamics of economic overheating was brought under control very quickly. But due to the high intensity of the proactive macroeconomic management, a lot of measures were implemented in a sweeping approach, , which resulted in sharp fall in economic growth during 1989-1990. The real GDP growth declined to 4.2% and 3.9% respectively in 1989 and 1990, the lowest since the reform and opening-up. The trend of investment scale expansion was brought under control. The fixed asset investment was down y-on-y, it recorded RMB441 billion in 1989, down by RMB34.4 billion from 1988.

Momentum to curb consumption overheating and inflation was kept under control. The growth of the total retail sales of consumer goods was down to 8.9% in 1989 and 2.5% in 1990 from 27.8% in 1988. to 8.9% by 1989 and 2.5% in 1990. The increase of the consumer demand obviously cooled down, “panic buying” smoothed down. CPI Growth declined from 18% in 1988 to 3.1% in 1989 and 3.4% in 1990, the inflation dynamics were also obviously under control.

---

16 Ibid.

17 Ibid.

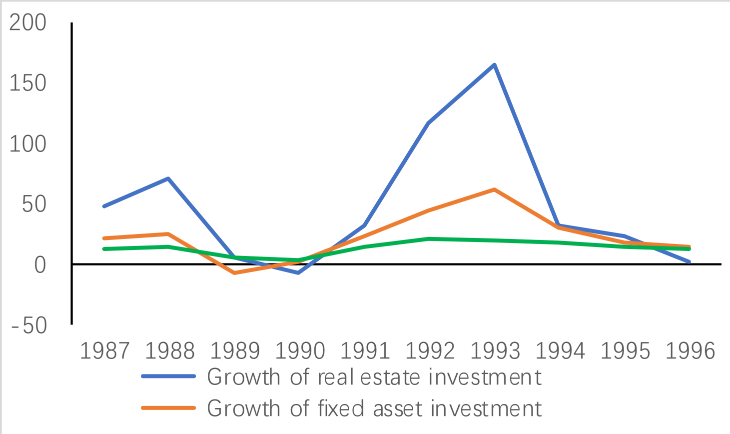
4. The Overheated Economy after Deng Xiaoping's Speech in the Southern Tour in 1992

(1) Macroeconomic background

After Deng Xiaoping's Southern Tour speeches in 1992 and the confirmation to establish the socialist market economic system at 14th CPC National Congress, there was an upsurge in development and investment across the country, resulting in economic overheating and serious inflation. The real GDP grew by 14.2%, the real industrial added value grew by 21% y-on-y, and CPI rose 6.4% in 1992. The real GDP grew by 13.9%, the real industrial added value grew by 20% y-on-y, and CPI grew by double digits to 14.7% in 1993. By 1994, the real GDP growth rate remained as high as 13%, while the CPI rose 24.1%, the historic high since the reform and opening up. The features of this round of economic overheating are as follows:

First, the reform has stimulated the enthusiasm of local governments to expand investment in construction. After Southern Tour Speeches were made in early 1992, the local governments became more confident, and they all want to "make greater efforts to speed up growth" and speed up the infrastructure investment. The nationwide investment and construction boom emerged, which also resulted in the problem that all the regions competing with each other and pursuing high-speed growth. The fixed asset investment started to grow rapidly from 1992, and too many projects were launched resulted in higher follow-up investments. In 1993, a huge amount of investment was put into the production sectors andinfrastructure development, the nominal growth of fixed asset investment across the country reached 61.8 %, much higher than the 23.9% in 1991 and 44.4% in 1992 (Figure 13). The rapid investment growth made the total social demand larger than the total supply, and makes the raw materials, capital and other factors in short supply. The price index of fixed asset investment has risen sharply, and it grew by 15.3% in 1992 and 26.6% in 1994.

Figure 13: Growth of real estate, fixed asset investment and real industrial added value(%)



Source: CEInet Statistics Database

Second, companies were highly enthusiastic to make investment, but the prominent issue was redundant investment. On the one hand, this investment expansion was caused by the government behavior, various irregular administrative interventions, and the motivations of local governments to encourage local enterprises to speed up investment. [18] On the other hand, the soft budget constraint faced by some companies was also an important reason for repeated and excessive investment. For example, during this period, China's textile industry experienced redundant investment, fierce market competition and a serious inventory backlog. As light industries like textile are often one of the leading industries in a country at the beginning of its industrialization, their labor-intensive and relatively low threshold played an important role in boosting local economic growth, increasing tax revenue and solving employment problems. All regions of the country were blindly developing the textile industry, and even one or more projects were being developed in one county, resulting in redundant construction of the textile industry and overstocking inventory. However, even though the total textile products in the country was in oversupply, many companies were reluctant to exit voluntarily, and still some new companies joined in the sector and made investments in it.

Third, a boom of industrial park development and the real estate investment emerged. A wave of industrial park development and real estate investment boom swept across the country, with a large amount of credit funds flowing into the real estate market in coastal areas such as Hainan in pursuit of high profits. Although the loan

[18] *Zhu Rongji On The Record* (Book 1), Page 291.

scale in 1992 was kept under control and did not break the budget limit, tens of billions of loans bypassed the limits and went to the coastal areas through fund-raising and lending and were transformed from short-term loans into long-term ones.[19] Funds from financial institutions flew into the real estate market through various channels. In 1992, the nationwide real estate development investment grew by 117.5%, and it reached a historical high of 165 % in 1993. A large amount of credit funds flew into the real estate market, which crowded out funds for key national construction projects and resulted in a sharp price rise in the prices of raw materials such as cement, steel, electricity and oil and the steady rise in the overall price level.

Fourth, the sharp expansion of consumer demand pushed up the prices and strengthened the inflation expectation. The Inflation strengthened people's expectation on it, and they were panic and tried to buy everything they can, like stocks, bonds, gold, foreign exchange, and high-end goods. Prices for general goods and service also rose [20] in order to limit the losses caused by inflation. The y-on-y growth of the total retail sales of consumer goods all over the country increased rapidly from 16.8% in 1992 to 29.8% in 1993 and 30.5% in 1994. The investment growth of the processing sectors was obviously faster than that of raw materials and energy, which finally resulted in the economic overheating with the dual expansion of investment and consumption, and the tight supply of raw materials such as coal, electricity, oil and transportation (Figure 14).

Figure 14 Growth of total retail sales of the consumer goods (%)

Source: CEInet Statistics Database

[19] *Zhu Rongji On The Record* (Book 1), Page 278.

[20] *Zhu Rongji On The Record* (Book 1), Page 290.

(2) Proactive Macroeconomic Management Measures

In order to curb the economic overheating manifesting as blind investment expansion, serious speculation in the real estate market and rapid price rise, the government adopted a "*moderately tight*" fiscal policy and a "*tight* " and "*moderately tight*" monetary policy in its proactive macroeconomic management. In terms of the fiscal policy, it is stipulated that the ministry of finance would no longer permit the overdraw by the central bank, and the investment scale would be controlled by selectively tightening the infrastructure projects. In terms of the monetary policy, some measures of direct administrative control were used to control the flow of the credit. However, the situation changes and more experiences gained, the government used more and more market-oriented monetary policy tools such as interest rate, reserve requirement ratio and open market operation in its proactive macroeconomic management.

In June 1993, the Central Committee of the CPC and the State Council issued *Opinions on Current Economic Situation and Strengthening Proactive macroeconomic management* [1993] (No. 6), which put forward 16 measures to strengthen proactive macroeconomic management (Table 5). In July of the same year, Vice Premier Zhu Rongji was appointed as the president of the People's Bank of China in order to cool down the overheated economy. Among the 16 measures, the focus was given to rectify the financial order to crack down the speculations in real estate sector and the redundant infrastructure project development as well as to control the purchasing power of the institutions and companies. And the overheating was finally kept under control.

Table 5: 16 Measures of the 1993 Proactive Macroeconomic Management

1. Strictly control currency issuance and stabilize the financial situation.
2. Resolutely Crack down on illegal fund-raising.
3. Make flexible use of interest rate lever and vigorously increase savings.
4.Resolutely stop all kinds of unauthorized fund-raising activities.
5. Strictly control the total credit.
6.Commerical banks to ensure any withdrawal from the saving accounts.
7. Accelerate the pace of financial reform and strengthen the central bank's power to regulate the financial sector.
8. the reform of the investment system should be implemented together with the reform of the financial system.

9. Complete the treasury bill issuance on schedule.

10. Further improve the securities offering and standardize market management.

11. Improve foreign exchange management measures to stabilize foreign exchange market prices.

12. Strengthen the macro management of the real estate market and promote the healthy development of the real estate industry.

13. Strengthen tax collection and administration, management, and avoid tax revenue losses.

14. Review the projects under construction and sort them by priority, strictly control the new projects.

15. Actively and steadily promote the price reform and curb the overall price level from rising too fast.

16. Strictly control the excessive growth of purchasing power of the institutions and companies.

Soure: The Opinions of CPC Central Committee and the State Council on Current Economic Situation and Strengthening Proactive macroeconomic management issued in June 1993.

From the contents of the 16 measures, we can see this proactive macroeconomic management has the following characteristics:

The first is to Cut funding sources for infrastructure construction and real estate investment. 11 out of 16 measures are closely related to the rectification of financial order. In order to control the sources of funds flowing into the real estate and infrastructure projects, the government reduced the money supply via strictly controlling the currency issuance, tightening credit scale, raising interest rates, curbing illegal fund-raising, clearing up and collecting the funds lent out but exceeding the scope and maturity.

The second is to make use of economic and administrative means simultaneously when tightening the credit policies. Firstly, strengthen the role of economic means and solve the problems by making the market mechanism play its function. For example, interest rate was used as a lever to attract deposits and increase the cost of borrowing to tighten the money supply. In 1993, the People's Bank of China raised the benchmark deposit rate and lending rate twice: the benchmark interest rate of one-year deposits increased from 7.56% as of May 1993 to 10.98% as of July 1993; The benchmark interest rate for one-year loans was increased from 8.64% as of May 1993 to 10.98%

as of July 1993. Secondly, administrative means were used to tackle the economic disorder. For example, the credit sizes of the financial institutions were subject to stringent supervision and review; banks required apply for differentiated policies when approving the loans for different type of projects; review the projects under construction and sort them by priority; take urgent measures to control of various types of land lease projects. Thirdly, in order to cope with inflation and inflation expectation, the government set the price limit on the grains and made another 20 kinds of daily necessities subject to stringent price review. Fourthly, keep the price of the agricultural product stable, pay special attention to the "vegetable basket" program, and make the "vegetable basket" program as one of the top priorities of Party Secretaries, governors and mayors of all provinces and cities,[21] to ensure the urban residents have adequate supply of agricultural products. The financial subsidies for grain and other agricultural production must be fully delivered, misappropriation is strictly prohibited so as to safeguard the interests of the farmers and have them stimulated to stabilize the grain production, ensure the stable supply of agricultural products and keep agricultural products price stable.

In addition, for the issues which could hardly be resolved only via market-oriented measures, like the overcapacity of textile sector, necessary administrative measures were used. Redundant investments were cut down through administrative measures such as production restriction, inventory reduction, and suspended production for rectification. Measures were also implemented to speed up the consolidation, reform, upgrading and restructuring of the textile sector, and some factories switched to another production line, others were acquired or were relocated.[22] Efforts were made to clear the textile projects one by one. For the projects having accepted the arrangements, a liquidation procedure must be completed. The Ministry of Textile Industry allocated the task of restricting production and reducing spindles to the provinces, autonomous regions and municipalities, and such tasks were then re-allocated to the county level or below, banks cut their lending based on such indicators. For projects failing to cut the spindles as required, no loans will be granted for their technological upgrading in the future.[23]

The third is to deepen the reform during the regulation. Since 1994, a series of reform measures covering fiscal, tax, finance and foreign exchange had been introduced.

---

[21] Zhu Rongji On The Record (Book 1), Page 303.

[22] *Zhu Rongji On The Record* (Book 1), Page 522-523.

[23] China National Textile Council held a national textile industry working conference in Beijing [J]. Textile Herald, 1994(1).

For example, the tax-sharing reform in the fiscal system reform rationalized the financial and administrative power of the central and local governments, increased the share of the central government in fiscal revenue, which allowed the fiscal policies to play their functions more effectively in proactive macroeconomic management. The reform of the fiscal system to stop the overdraft from the central bank helped rationalize the relationship between fiscal and monetary policies and made the implementation of fiscal policies be subject to some restraints.

In terms of financial system reform, the policy finance was separated from commercial finance, three major policy banks were established, and four major specialized banks were restructured into state-owned commercial banks. The reform of the banking system changed the operating system of the specialized banks, enhanced their governance, strengthened the authority of the central bank, and allowed the central bank to establish its proactive macroeconomic management system.[24] In terms of foreign exchange administration system, the unification of exchange rate was initiated, and a managed floating system reform was introduced, which was conducive to the establishment of formation mechanism in interest rate market and the transmission mechanism of monetary policy. The central bank cooperated with the Ministry of Finance to issue treasury bonds to cover the deficit. Securities (including treasury bills, fiscal bills, national long-term development credit bank notes) pledging and trading businesses were allowed on a pilot basis, which made it possible for indirect regulation of money supply. [25]

(3) Effectiveness of Proactive Macroeconomic Management

With the implementation of 16 proactive macroeconomic management measures, the nationwide investment and credit granting were clearly under control. Since 1994, the credit scale had seen rapid contraction and the growth of investment and the growth of real estate investment slowed down dramatically. The investment growth fell from 61.8% in 1993 to 30.4% in 1994, 17.5% 1995 and 14.8% in 1996; The growth of real estate investment gradually fell from 165% in 1993 to 31.8% in 1994, 23.3% in 1995 and 2.1% in 1996.

Due to the time lag effect of the policy, the economic growth and price did not see any decline until 1995. In 1995, real GDP growth dropped to 11%, and CPI growth dropped to 17.1%, down by 7 percentage points from 1994. In 1996, the real GDP growth was 9.9 %, and the CPI growth dropped to 8.3%. After three years of proactive

[24] Zhu Rongji On The Record (Book 1), Page 283.

[25] Zhu Rongji On The Record (Book 1), Page 283.

macroeconomic management, China's first economic overheating since the establishment of the market economy system was fully under control, a "soft landing" of the economy was well achieved.

5. Proactive Macroeconomic Management after the Outbreak of the Asian Financial Crisis in 1998

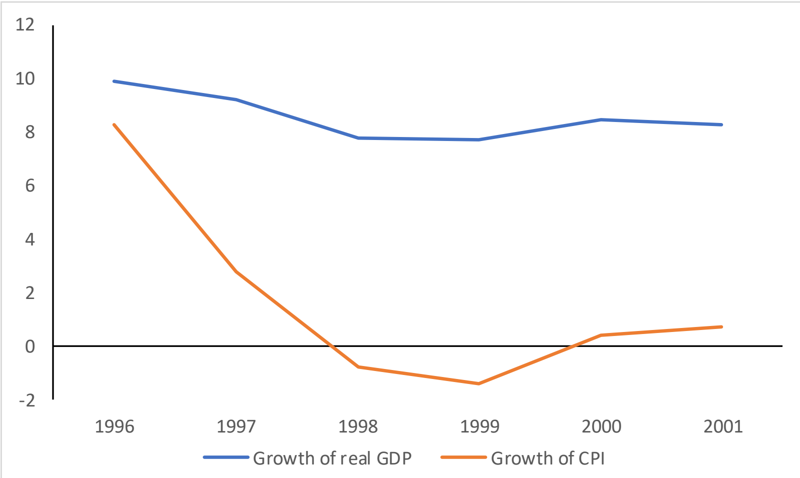
(1) Macroeconomic background

Impacted by the Asian financial crisis, China's economic growth and price level had dropped significantly since 1998, and the first deflation had occurred since the reform and opening up. From 1998 to 1999, the real GDP growth sank through 8% and down to 7.8% and 7.7% respectively from near 10 % in 1996 (Figure 15). The real year-on-year growth of industrial added value was down to 8.9% and 8.6% respectively in 1998 and 1999. The growth rate of CPI was in negative value, and up by -0.8% and -1.4% respectively. The sign of economic cooling down and deflation was clearly visible. This round of economic cooling down was inevitable because: on the one hand, external demand decline during the Asian financial crisis resulted in the export decline; On the other hand, excessive domestic investment in the previous years resulted in overcapacity. The specific features of this economic cooling down are as follows:

First, impacted by the Asian financial crisis, China's export demand dropped significantly. In 1997, the net exports of goods and services contributed 42.6% to GDP, and such contribution dropped to just 6.6% in 1998, and further down to -9.8% in 1999. In 1996, net exports of goods and services contributed 3.9 percentage points to GDP growth, which dropped sharply to 0.4% in 1998 and -0.7% in 1999, that means that net exports dragged down the economic growth by 0.7 percentage points (Figure 16).

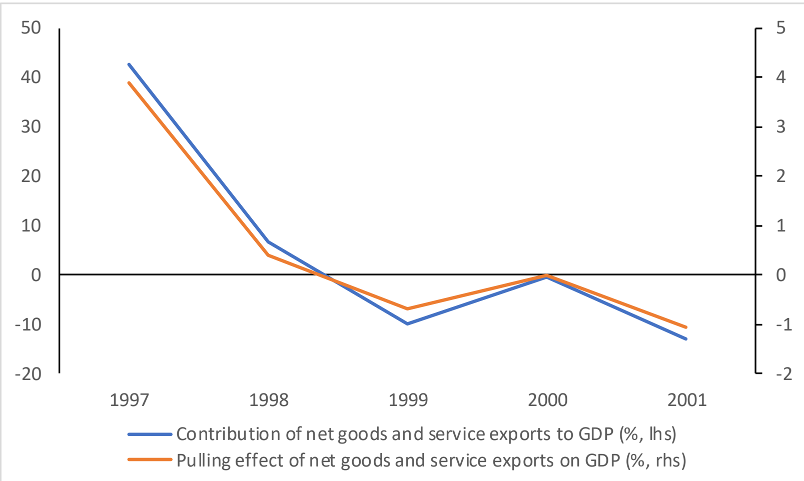
Second, redundant investment and overcapacity over the previous years resulted in insufficient effective domestic demand obviously during this period. On the one hand, the growth of domestic fixed asset investment demand declined significantly. The nominal growth of in fixed asset investment dropped from 14.5% in 1996 to 8.8% in 1997, and further dropped to 5.1% in 1999 after a brief recovery to 13.9% in 1998 (Figure 17). Domestic consumption demand, on the other hand, also showed a continuous and obvious downward trend. The growth of total retail sales of consumer goods dropped from 20.1% in 1996 to 10.2% in 1997 and 6.8% in 1998 and 1999. As the final and direct demand, the main reason for the decline in consumption growth was that people did not fully understand the goals of housing, education and health care reform, and they opted to save money as a protective measure. At the same time, the poor performances of the companies and the increasing numbers of workers being laid off have reduced the income of the residents and their spending power. The continued decline in the growth of net exports, domestic investment and consumption made the oversupplied situation even worse, and there were obviously signs of inventory overstock, overcapacity and continued price declining.

Figure 15 Growth of Real GDP and CPI from 1996 to 2001 (%)



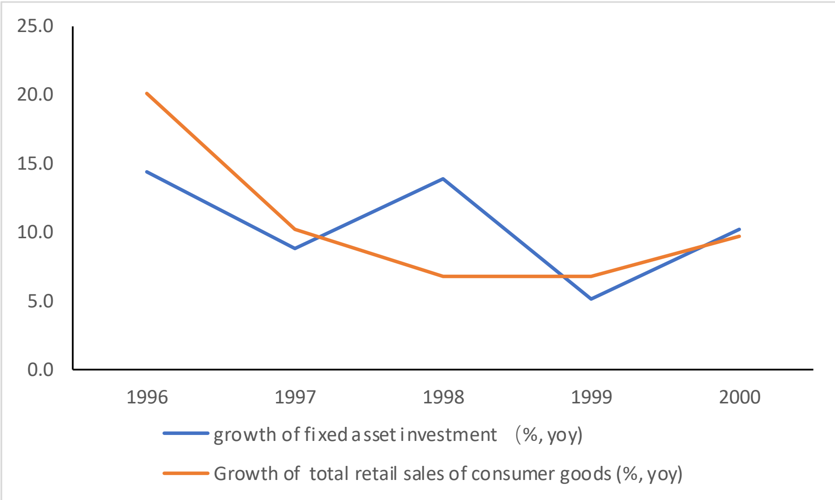
Source: CEInet Statistics Database

Figure 16 Contribution and pulling effect of net goods and service exports to/on GDP



Source: CEInet Statistics Database

Figure 17 Y-on-Y growth of fixed asset investment and total retail sales of consumer goods



Source: CEInet Statistics Database

(2) Proactive Macroeconomic Management Measures

This round of economic slowdown and deflation was mainly caused by the impact from demand side. For this reason, the government implemented the proactive macroeconomic management via the total demand management approaches and adopted proactive fiscal policy and sound monetary policy to stimulate effective demand in order to balance total supply and demand. At the same time, the "*hand of government*" was used to help "*the hand of market*" to speed up the exit of the enterprises with outdated production capacities in a short period of time and reduce the welfare losses. In addition, the government lost no time in pushing forward the economic system reform that considered both short-term regulation and long-term development. The main regulation measures are as follows:

First, the government took proactive fiscal policies to boost economic growth through multiplier effect. On the one hand, the government modestly expanded fiscal deficit by issuing more treasury bills to provide the funds for infrastructure investment. In 1998 and 1999, China's fiscal deficit increased to RMB150 billion and RMB180 billion respectively. Among them, RMB100 billion and RMB110 billion of treasury bill were issued in 1998 and 1999 respectively. The proceeds of the treasury bills offering were mainly used for investment in infrastructure projects rather than redundant investment in industrial production so as to avoid aggravating the contradiction between supply and demand. During this period, the proceeds of the treasury bills offering were mainly used for six types of infrastructure projects, including highway construction, rural power grid upgrading, grain depot construction, urban infrastructure construction, water conservation construction and the interest subsidy for technical renovation. On the other hand, the government cut tax via adjusting tax rates to promote economic growth. The rate of the adjustment tax on fixed-asset investment was cut by 50% and suspended from January 1, 2000. The government also put forward the export tax rebates to encourage and promote exports, offer tax incentives to attract foreign investors to make investments in China. In January and July 1999, China raised the export tax rebate rate twice, with the comprehensive tax rebate rate reaching 15.51%.

Second, the government adopted a sound monetary policy to stimulate economic growth by increasing the money supply and credit granting. One is to lower the benchmark interest rates on lending and deposits. From March 1998 to June 1999, the central bank lowered the benchmark interest rate for four times. Among them, the benchmark one-year lending rate was lowered from 8.64% to 5.85%. The benchmark one-year deposit rate dropped from 5.67% to 2.25%. Two is to reduce the reserve requirement ratio(RRR). From March 1998 to November 1999, the central bank drastically reduced the reserve requirement ratio twice from 13% prior to the adjustment in 1998 to 6% in 1999 or a 7 percentage points cut in total. Among them, on March 21, 1998, the mandatory reserve account and provision account were combined into one, and the reserve requirement ratio was reduced by 5 percentage points at a time, the largest decrease of reserve requirement ratio in history. Meanwhile, the government also lowered the rediscount rate and the refinancing rate. Three is to remove the credit limits imposed on the state-owned banks to enhance the loan granting capacity of the specialized banks.

Third, the government used the “hand of government” to help the “hand of the market” speed up the exit of the enterprises with outdated technologies and Accelerate market clearing. During the previous overheating periods, redundant investment brought about overcapacity, structural imbalance and poor performances of companies. Impacted by the falling external and domestic demands, the serious shortage of effective demand relative to total supply caused the deflation and economic slowdown. It would be a long and painful process to realize market clearing by relying entirely on the market mechanism, and it would also result in the welfare losses. For this reason, the government tried to increase the supply by reducing redundant construction and providing support to the companies in their technological renovation through administrative measures, helping outdated and non-profitable enterprises to exit and complete business upgrading so as to quickly correct market failure and speed up the market clearing.

On the one hand, efforts were made to stop low-level redundant production and construction and reduce the low-end supply. Administrative measures like access approval, bank loan approval, land using approval, urban planning approval, environmental evaluation approval and others were applied in a comprehensive approach to eliminate the enterprises with outdated capacities to reduce the production of the products hard to sell. In August 1999, the government promulgated the *Catalogues of Restricting the Redundant Investment in Industrial and Commercial Sectors*, which required the government authorities at all levels concerning the land, city planning, environmental protection, fire protection and others not grant approval to the projects low-level redundant construction (Table 6) and the relevant personnel accountable for any violations would be subject to penalty. At the same time, the loss-making enterprises and those with redundant construction projects would not have any access to bank loans in order to force them to close the factories, suspend production, merge with others, and switch into other businesses. The government also required the relevant departments and banks conduct a joint nationwide inspection and stop granting any loans to the factories with overstocked inventories so as to prevent them from producing and thus help them close down and exit the market.

Table 6 Administrative Measures Restricting the Redundant Investment in Industrial and Commercial Sectors

Prohibited catalogue	Approving authorities	Approval requirements
(1) Projects explicitly prohibited by relevant laws and regulations; (2) Projects of low-level redundant construction, which contributed to the current overcapacity and were subject to total amount control; (3) Projects with outdated technologies and knowhow and being able to be replaced by new projects with advanced and established technologies and knowhow; (4) Projects would cause environmental pollution and waste of resources.	Government authorities at all level responsible for investment approval	Deny the approval
	All banks and financial institutions	Reject loan application
	Land administrative authority	Reject application
	Urban planning authority	Reject application
	Environmental protection department	Reject application
	Fire protection department	Reject application
	The Customs and others	Reject application
Including 17 sectors, and 201 items		

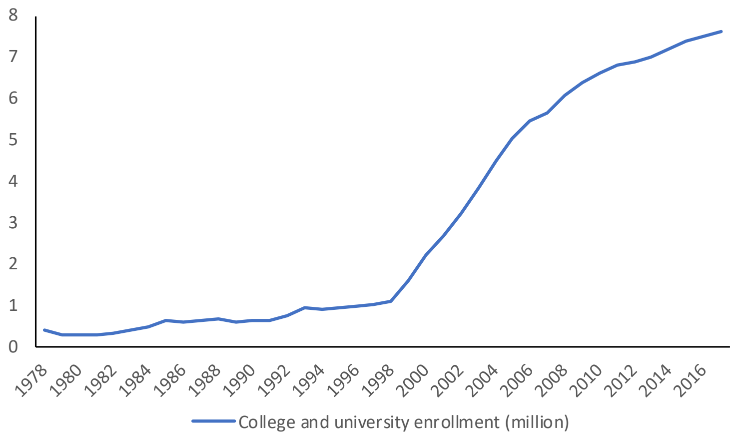
Source:The Catalogues of Restricting the Redundant Investment in Industrial and Commercial Sectors (Batch 1) drafted by the State Economic and Trade Commission in August 1999

On the other hand, the government guided the enterprises to implement technical upgrading and improve supply quality. The government used the market-oriented approach to guide the enterprises to increase investments in technological transformation and upgrading. For example, the government issued RMB60 billion new government bonds, and allocated RMB15 billion as the interest subsidies for companies applied for technologies transformation loans, which generated about RMB200 billions of technical transformation investment.[26] The investment projects encouraged by the state and the foreign investment projects shall be exempted from customs duties and import value-added tax. Since July 1999, for example, the technological renovation projects meeting the national industrial policy could get the enterprise income tax exempt based on the 40% of the purchase price of their domestic made equipment.

Fourth, take the opportunity to promote economic system reform. For example, the housing commercialization of and the reform of urban housing system, which began in 1998, not only helped achieving the proactive macroeconomic management goal of increasing demand in the short term, but also released the vitality of economic growth in the long term. Another example was that the government further deepened the SOEs reform to improve the operating efficiency and performance of the textile, coal, petroleum, petrochemical and metallurgical industries, reduce ineffective supply and alleviate the contradiction between supply and demand. Another example was the massive “enrollment expansion” reform to the enrollment system of the colleges and universities in 1999 (Figure 18), which eased the employment pressure at that time and, more importantly, promoted the upgrading of human capital and enhanced the endowment for the long-term development of China’s economy. The above-mentioned economic system reform has further improved the market mechanism, strengthened the proactive macroeconomic management, and enhanced the internal vitality for the future economic development.

[26] Zhu Rongji On The Record (Book 1), Page 294.

Figure 18 College and university enrollment



Source: Wind database.

(3) Effectiveness of Proactive Macroeconomic Management

This Proactive Macroeconomic Management successfully responded to the external adverse impact brought about by the Asian financial crisis and achieved good results. The real GDP growth in 1998 and 1999 was 7.8% and 7.7% respectively, although it was still below 8%, it was achieved in the face of the sharp decline in external demand caused by the international financial crisis and the flood disaster in 1998, so the success was not an easy win. On the one hand, macroeconomic policies have played an important role in stimulating the economy. For example, it is estimated that the active fiscal policy adopted by the government boosted economic growth by 1.5 percentage points in 1998 and 2 percentage points in 1999.[27] On the other hand, real GDP growth in 2000 and 2001 reached 8.5% and 8.3% respectively, and economic growth began to enter the recovery path, which also indicated that proactive macroeconomic management played an important role in the subsequent economic stability and recovery.

The proactive macroeconomic management on the exit and elimination of outdated capacity by the companies with the help of the government also achieved good results. By the end of 1999, about 31,000 small coal mines had been closed, reducing capacity by about 280 million tons, and the coal industry basically restored the supply and demand balance in 2000. The supply and demand dynamics improved, and the operating efficiency and quality of enterprises enhanced significantly. Many industries turned a profit from losing making. And the growth of total profit of the industrial

[27] Zhu Rongji On The Record (Book 1), Page 409.

enterprises above the designated size increased from -14.8% in 1998 to 56.9% in 1999 and 92% in 2000 (Table 7). The overstocked inventories decreased, and the product sales rates for industrial enterprises above the designated size increased significantly, from 96.52% in 1998 to 97.15% in 1999 and 97.63% in 2000. The bank debts owned by companies with poor management and performance were reduced, the debt to asset ratio of the industrial enterprises above designated size dropped from 63.74% in 1998 to 61.83% in 1999 and 60.81% in 2000.

More importantly, the proactive macroeconomic management during this period also contributed to the rapid infrastructure construction and development and laid a good foundation for China's future economic development. Take expressways for example, before the Asian financial crisis in 1997, the total expressway mileage was only 4,700 kilometers, which increased to 24,000 kilometers by the beginning of 2002.[28] The rural power grid renovation project also greatly improved the living standard and production capability of rural residents and expanded rural consumption indirectly.

Table 7 Change of performances of the Industrial enterprises above designated size

Year	Product sales rate for the industrial enterprises above designated size	Debt to asset ratio of the industrial enterprises above designated size	Growth of total profit of the industrial enterprises above designated size
1998	96.52%	63.74%	-14.38%
1999	97.15%	61.83%	56.93%
2000	97.67%	60.81%	92.00%

Source: CEInet Statistics Database

6. The Economic Overheating Period from 2003 to 2007

(1) Macroeconomic background

China's economy started a new round of recovery in 2003, and gradually showed signs of economic boom. The key characteristics were fast growth of fixed asset investment, high money and credit supply, and large foreign trade surplus, which resulted in the imbalance in which the domestic total demand was larger than the total

[28] Zhu Rongji On The Record (Book 1), Page 446.

supply. From 2003 to 2007, China's real GDP maintained double-digit growth and it kept rising from 10% in 2003 to 11.4% in 2005 and 12.7% in 2006 and reached the record high of 14.2% in 2007 (Figure 19). The CPI growth rate fluctuated from 2003 to 2007, but also reached 3.9% and 4.8% respectively in 2004 and 2007. Although the CPI growth rate was only 1.5 % in 2006. The house prices rose by more than 10%. [29] A too fast economic growth and inflation was evidently visible.

On the one hand, domestic fixed assets are growing too fast, and blind investment and low-level redundant construction reappeared. Among them, the investment overheating was clearly observed in steel, aluminum, cement and other industries, and the upstream products like coal, electricity, oil, transportation and the infrastructure were in tight supply. From 2003 to 2007, the average growth of fixed asset investment reached 25.8%. From 2004 to 2007, the average growth of fixed asset investment in manufacturing industry reached 32%. Real estate investment grew averagely by 25.5%. The growth rates of all kinds of investments were all at their high level in history. Meanwhile, the real growth of industrial added value also increased from 11.6% in 2005 to 14.9% in 2007.

The long-term economic boom made the companies be too optimistic about the economic prospects and the "Rush to the Top" game appeared, which generated redundant investments. Both SOEs and private companies made blind investments and their investments in fixed assets increased significantly, excessive investment of private companies were even more prominent. For example, the total fixed asset investment in 2007 was RMB11.7464447 trillion or increased by 25.81% y-on-y. Among them, the fixed asset investments of state-owned companies were RMB5.222939 trillion or up by 16.52 % y-on-y; and the fixed asset investment of private holding companies were RMB4.640513 trillion or increased by 39.03% y-on-y. The investment growth of private holding companies was significantly higher than that of state-owned companies. [30] In the manufacturing and mining industries where, redundant investment and overcapacity were more concentrated, the investment growth of private companies was higher than that of state-owned companies. By subsectors, the investment growth of privately companies was also higher than that of state-owned companies in the following subsectors: the nonmetallic mineral product manufacturing,

---

[29] Lu Feng, Logic of Proactive macroeconomic management [M]. CITIC Press Group, 2016.

[30] The growth of fixed asset investment by private companies in 2007 was also higher than that by SOEs. In 2007, the total fixed asset investment in the whole society was RMB13.7324 trillion or up by 24.84% y-on-y. Among them, the fixed asset investment by SOEs was RMB3.87066 trillion or up by 17.42% y-on-y. However, the fixed asset investment by private companies reached RMB2.7056 trillion or up by 40.42% y-on-y (calculated by the author based on the data from the CEInet Statistics Database).

non-ferrous metal smelting and rolling processing, metal product manufacturing under the manufacturing industry; coal mining and washing, oil and gas extraction, and non-ferrous metal mining and mineral processing under the metal and mining industry (Table 8).

So private companies were more aggressive in making investments during the economic boom, which could not be explained by the theories of the SOE "*soft budget constraints*" (Kornai, 1986, 1998) [31] and the "*promotion tournament*" of local government officials (Zhou Li'an, 2004, 2007)[32]. In fact, for a single company, the incomplete market information would naturally lead to a certain kind of uninformed and blind production activities. During economic boom, most companies were over-optimistic about the future and made redundant investments, resulted in a faster expansion of production capacity of the whole industry and accelerated the economy towards overcapacity.

Table 8: Investment growth in 2007: State-owned companies s vs. Private holding companies

Sector	state-owned companies		Private holding companies	
	Fixed asset investment (RMB000' million)	Growth (%)	Fixed asset investment (RMB000' million)	Growth (%)
Total investment	52229.39	16.52	46405.13	39.03
Manufacturing	7264.14	26.46	20338.23	46.29
Ferrous metal smelting and rolling processing	1632.71	23.60	737.08	17.22
Nonmetallic mineral product manufacturing	285.67	21.87	2073.44	60.49
Non-ferrous metal smelting and rolling processing	422.98	13.88	630.19	48.57
Metal product manufacturing	96	29.36	1181.18	54.01
Mining	3456.9	18.30	1378.29	44.35

[31] Kornai, J. (1986). The Soft Budget Constraint. Kyklos, 39(1), 3-30;
Kornai, J. (1998). The Place of the Soft Budget Constraint Syndrome in Economic Theory. Journal of Comparative Economics, 26(1), 11-17.

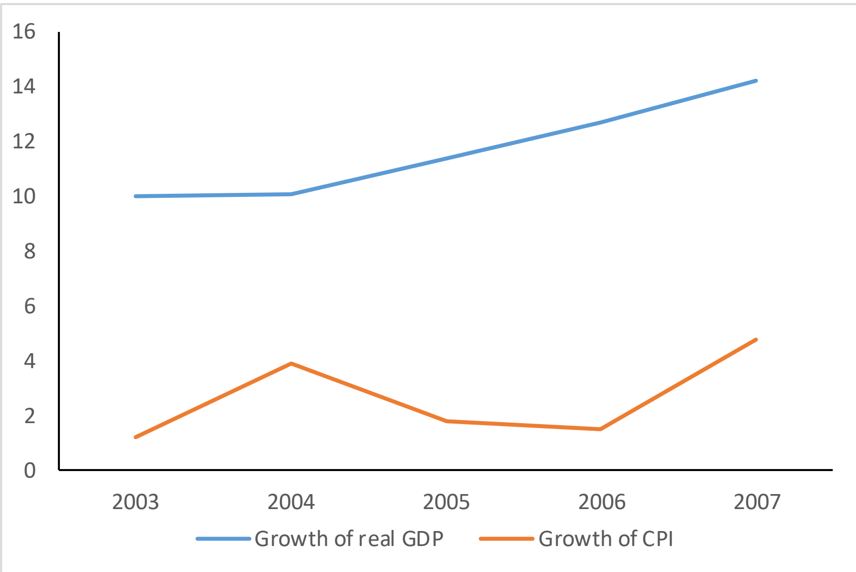
[32] Zhou Li'an, Incentivizing and Cooperation among Government Officials in Promotion Contest—Reasons for Chronic Existence of China's Local Protectionism and Redundant Construction [J]. Economic Research Journal, 2004(6):33-40;
Zhou Li'an, A Study on the Mode of Promotion Championship among Chinese Local Officials [J]. Economic Research Journal, 2007(7):36-50.

Coal mining and washing	1044.15	10.92	536.25	43.55
Oil and gas extraction	2132.89	20.38	40.26	103.33
Non-ferrous metal mining and mineral processing	108.11	30.54	295.14	77.77
Non-metal mineral mining and processing	54.44	78.84	212.71	46.45
Ferrous metal mining and mineral processing	115.02	22.10	285.85	16.42

Source: ACCEPT calculation based on the data from the CEInet Statistics Database

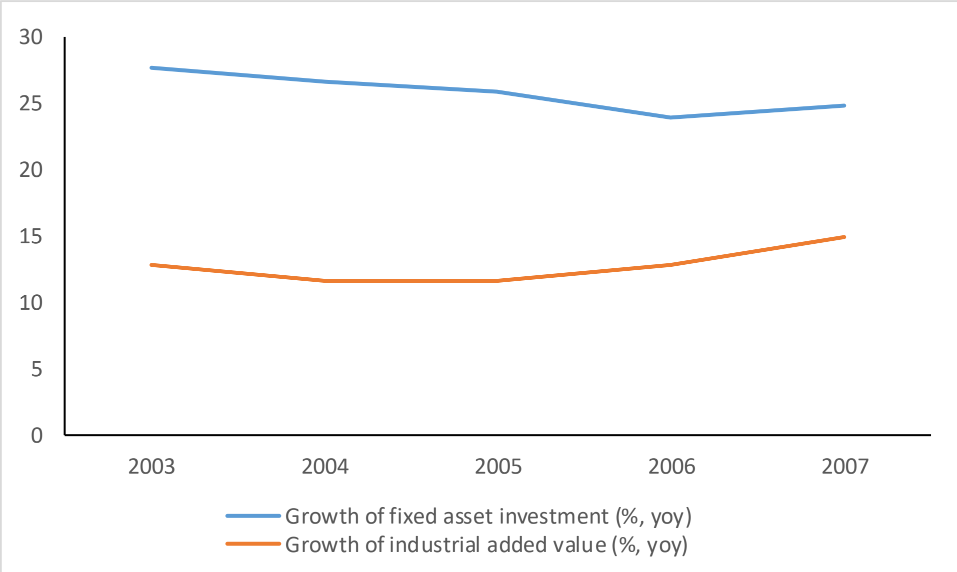
On the other hand, the rapid growth of external demand after China's accession to the WTO made a significant contribution to the rapid growth of China's economy. Especially since 2005, China's net exports showed a sharp upward trend, which was also one of the important reasons why the total domestic demand was greater than the total supply. The contribution of net exports of goods and services to China's GDP reached historic highs of 12.5%, 15.1% and 10.6% respectively in 2005, 2006 and 2007. From the perspective of the pulling effect of external demand on the economy, net exports contributed 1.4, 1.9 and 1.5 percentage points to China's economic growth respectively in 2005, 2006 and 2007.

Figure 19 Growth of real GDP and CPI during 2003-2007 (%)



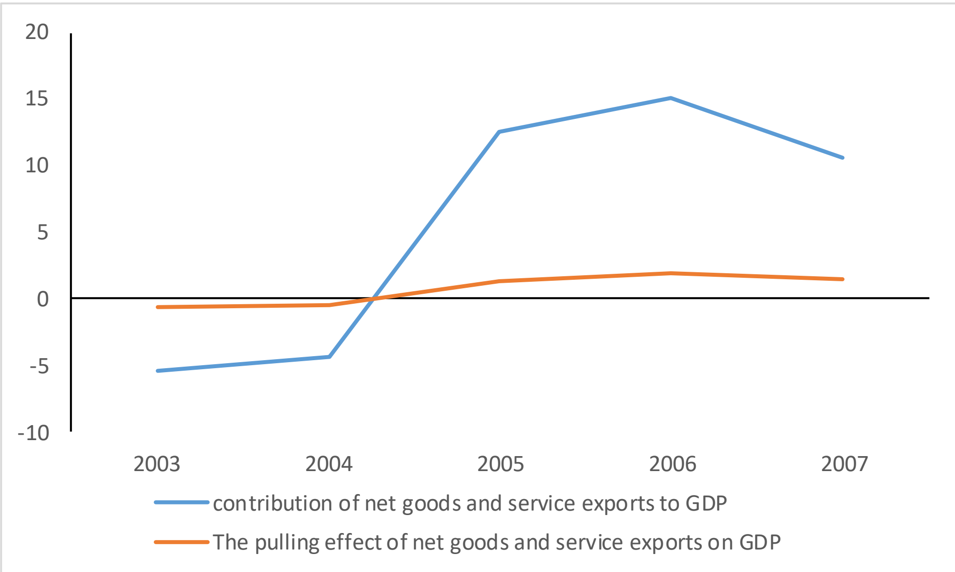
Source: CEInet Statistics Database

Figure 20 Y-on-Y growth of fixed asset investment and industrial added value during 2003-2007



Source: CEInet Statistics Database

Figure 21 The pulling effect and contribution of net goods and service exports on/to GDP during 2003-2007 (%)

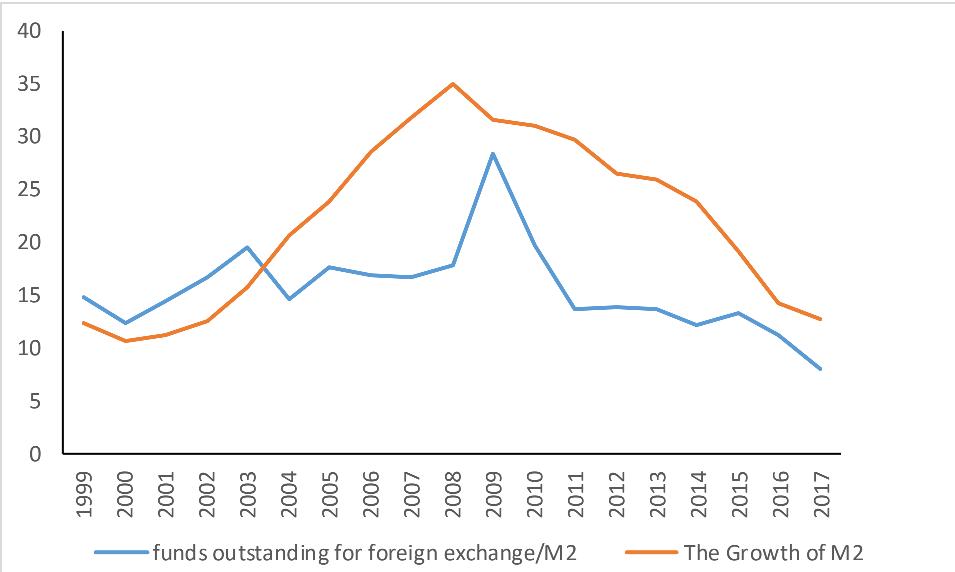


Source: CEInet Statistics Database

In addition, the increase in currency issuance resulted from the Funds Outstanding for Foreign Exchange pushed the price up. From 2003 to 2007, China's increasing trade surplus resulted in an increase in China's Yuan Funds Outstanding for Foreign Exchange and domestic money supply, while the additional currency issuance exerted pressure on the price in the long term. Since China's accession to the WTO in 2001, the

Yuan Funds Outstanding for Foreign Exchange owned by the financial institutions to M2 showed a significant upward trend and reached a historical high when the international financial crisis broke out in 2008. the Yuan Funds Outstanding for Foreign Exchange owned by the financial institutions to M2 reached 31.8% in 2007 from 15.8% in 2003 or more doubled. M2 also showed rapid growth during 2004 – 2007, and grew by 14.7%, 17.6%, 17% and 16.7% y-on-y respectively in 2004, 2005, 2006 and 2007. The rapid growth of money supply had an important impact on economic overheating and inflation (Figure 22).

Figure 22: The Yuan Funds Outstanding for Foreign Exchange/M2 and Growth of M2 (%)



Source: CEInet Statistics Database

(2) Proactive Macroeconomic Management Measures

In order to cope with the excessive economic boom during 2003-2007, the government implemented policies in a comprehensive, including market-oriented demand management measures and stringent administrative measures, and kept speeding up the economic reform during regulation process. In this round of regulation, the market-oriented total demand management measures were introduced more frequently, and the areas covered by such measures were more extensive. For example, the central bank increased significantly the use of market-oriented monetary policy measures such as interest rate adjustment, open market operation and reserve requirement ratio. Fiscal policy mainly focused on reducing bond issuance, cutting investment spending and adjusting spending structure, and making the spending in areas more related to people's well-being and with relatively small multiplier effects.

Since such measures did not immediately show ideal effects, the government decisively adopted administrative measures such as loan approval, land-using approval, technical standards and environmental protection standards to cool down the economy quickly. At the same time, the government kept deepening and pushing forward the reform of key areas and crucial parts in the economic system and focused on handling the relationship between the government and the market, economic growth and social development.

(1) The government adopted a sound fiscal policy and a tight monetary policy to cope with economic overheating and inflation. On the one hand, the government adopted a sound fiscal policy and rationalized the investment structure. One was to reduce the issuance of government bonds. From 2003 to 2007, the issuance of long-term state construction bonds was continuously cut down or was reduced by RMB100 billion in total. Two was to adjust the structure of fiscal spending. The investment in projects with larger pulling effect was reduced, while the investment in "*agriculture, rural areas and farmers*", science and technology, social security and other public services was increased. From 2003 to 2007, the central government spent RMB1.6 trillion in total over the five years on "*agriculture, rural areas and farmers*", and significantly increased investment in social security and the spending in education. Three was to suspend the tax rebates. Tax rebates offered to the export of the products with high energy consumption, high emissions and high consumption of resources so as to reduce the pressure resulted from the pulling effect of the exports. On the other hand, the government adopted a tight fiscal policy to prevent the fast growth of the credit. One was to raise the reserve requirement ratio (RRR) several times to reduce the money supply. In September 2003, the People's Bank of China raised RRR by 1 percentage point. and in April 2004, PBoC raised RRR by 0.5 percentage point again when no significant contraction of bank credit was observed in 1Q2004. In order to cope with the intensified economic overheating, the government maintained the tight monetary policy in 2006 and the RRR was raised three times. In 2007, the RRR was raised 10 times. The reserve requirement ratio for the large financial institutions reached 14.5 % after the adjustment in December 2007 from 6 % before the adjustment in 2003. Two was to raise the benchmark deposit and lending interest rate to raise the capital cost. From 2004 to 2007, the People's Bank of China raised the benchmark deposit and lending rate eight times. The benchmark one-year deposit interest rate increased from 1.98% before the adjustment in October 2004 to 4.14% after the adjustment in December 2007. The benchmark interest rate for one-year loans increased from 5.31% before the adjustment in October 2004 to 7.47% in December 2007. The frequency and

intensity of this round of the regulation via RRR and interest rate was rarely seen. Three was to use open market operations to remove excess liquidity from the market by issuing central bank bills and initiating repurchase agreement (repo).

(2) Make use of all kind of administrative measures in a comprehensive approach to speed up the exit of outdated and non-profitable companies and reduce the redundant investment

In order to control excessive investment overheating and overcapacity caused by excessive investment, low-level redundant construction and illegal construction in steel, cement, aluminum and other industries, the government adopted administrative measures such as credit, land and environmental protection to strictly control the uninformed market access and redundant construction so as to speed up market clearing.

One was to strictly control the flow of credit and enhanced the supervision. The relevant government authorities issued a series of documents calling for an increase in the capital ratio of the steel and other industries, strengthening credit supervision, strictly controlling the flow of credit to overheated industries such as real estate, steel, aluminum and cement, and conducting a special inspection on the flow of credit by the China Banking Regulatory Commission (CBRC).

Two was to tighten the land supply approval policy. The land for the infrastructure construction and industrial investment was under control by controlling new land available for construction projects. In April 2004, a State Council executive meeting was called to discuss the rectification of the land market governance, and the local departments were ordered to spend one month and a half to clean up the fixed asset investment projects under construction and proposed to be constructed. And the central government also asked the local government to investigate the Tieben event and had the people responsible for it seriously punished. Since then, the State Council and the Ministry of Land and Resources issued a series of documents to strictly control the land supply (Table 9), to stop the land supply for the steel, cement, aluminum and other projects that did not comply with the national industrial policy and market access conditions, and to hold local governments accountable for any illegal land using and focus on investigating three major kind violations, namely "*land renting instead of expropriating*", expanding industrial land using in violation of the overall land using plan, and "*land using prior to the approval*" and have the illegal projects cleared and corrected.

Table 9: China's regulation on land using approval during the 2003-2007 proactive macroeconomic management

Time	Meating or documents	Requirements
April 28, 2004	State Council executive meeting	① Discuss the rectification of the land market governance; ② Issued the order to investigate the Tieben event and had the people responsible for it seriously punished
April 29, 2004	The Urgent Circular of the General Office of State Council on Deepenning the Improvement and Rectification of the Land Market and Exercising Strict Land Administration	① Decided to spend about 6 months to make centralized efforts to rectify the land market; ② Clean up and inspect the land approvals granted since last year, especially the land using status of the new projects; rectify issues such as violation of national industrial policies, as well as the land using approvals beyond the planning, beyond one's power and the land using approval obtained by splitting the land into several pieces;
May 30, 2006	Urgent Notice of the Ministry of Land and Resources on Further Intensifying the Land Using Administration	① The Notice requires that the land using master plan and annual plan be strictly followed; ② Intensify the efforts to investigate the cases of unlawful land using and have those accountable punished . Focus should be given to investigate and handle the typical land using cases that are not following the planning or beyond planning, or the land using approvals was given without complying with the laws.
October 21, 2004	Decision of State Council to Deepen the Reform and Intensify the Land Administration	①Strengthen the pre-approval management, No approval should be granted should the projects have no pre-approval opinion or fail to pass the pre-approval; ② It is strictly prohibited to evade the statutory approval authority to split the single construction project into small pieces and get approval for them one by one
August 31, 2006	Notice of State Council Regarding Relevant Matters on Strengthening the Control of Land	Governors of local government would be held accountable for any serious consequences caused by land using violations in the locality as well as the failure to stop land using violations or the failure to organize the investigations into such violations.
September 2, 2007	Decision of the Ministry of Land and Resources	Focus on investigating three major kind violations, namely " land renting instead of expropriating", expanding industrial land using in violation of the overall land using plan, and " land using prior to the approval" and have the illegal projects cleared and corrected.

Source: summarized by the author based on the related documents

Three was to raise environmental protection standards and limit the redundant construction of outdated production capacity. On the one hand, the environmental protection department strictly implemented the environmental impact assessment, the principal of "*Three at the Same Time*" and the total pollutant emission control system for new, renovation and expansion projects. On the other hand, efforts were made to strengthen the supervision of environmental law enforcement. On June 3, 2007, the State Council issued the "Comprehensive Work Plan for Energy Conservation and Emission Reduction" formulated by the National Development and Reform Commission (NDRC) in conjunction with relevant departments to strengthen energy conservation and emission reduction management and strengthen supervision and inspection of law enforcement.

Four was to raise the technological bar for market entry. In order to prevent enterprises that do not have technological advantages from continuing to enter the industry with excess capacity and making redundant investments, relevant departments have formulated technical standards, and stringent market access conditions.

(3) Vigorously promote the reform of the fiscal and taxation and financial system

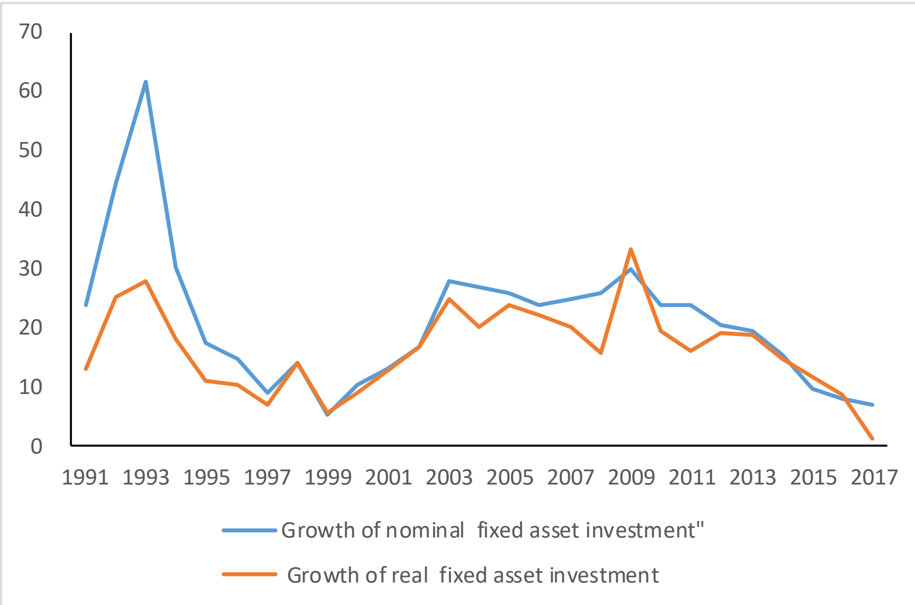
In executing these regulations, the government seized the opportunity to promote the joint-stock transformation of state-owned commercial banks and their successful listing, the reform of non-tradable shares of listed companies, the marketization of interest rates, and the reform of the exchange rate formation mechanism. The government conducted the value-added tax reform on a pilot basis, as well as the reform of combining the income tax system of domestic and foreign companies into a single system and so on. These reform measures have added new vitality to the future economic development and created better conditions for the implementation of fiscal policy and the better transmission of monetary policy.

3. Effectiveness of Proactive Macroeconomic Management

The proactive macroeconomic management from 2003 to 2007 focused on the forward-looking policy and the effectiveness of different policy combinations, thus achieved better results. First, the government grasp the trend of economic changes in a forward-looking manner to achieve a timely and flexible change in regulatory policies. The basic theme of fiscal policy and monetary policy was changed from "loose" to "tight" in time. For example, in response to signs of overheating, the 2004 *Central Economic Work Conference* promptly decided to adjust the active fiscal policy and prudent monetary policy to a "*double-prudent*" fiscal and monetary policy. The second was to realize the effective combination of market-oriented measures and administrative measures. While the fiscal and monetary policies were in force, administrative measures such as land control, project approval and environmental protection policies have been used to strictly limit the investment demand of outdated production capacity and quickly and reduce investment growth effectively. The specific effects of regulation are as follows:

First, the economy has maintained relatively rapid growth and prices remained stable. From 2003 to 2007, the economy grew at a rapid rate of 10% to 14.2%, while the consumer price index (CPI) grew at a rate of 1.2% to 4.8%. Prices were generally stable and there was no vicious inflation. The momentum of investment overheating was basically under control, and the real and nominal growth of fixed asset investment in the whole society showed a downward trend (Figure 23).

Figure 23 Real and nominal y-on-y growth of fixed asset investment in the whole society (%)

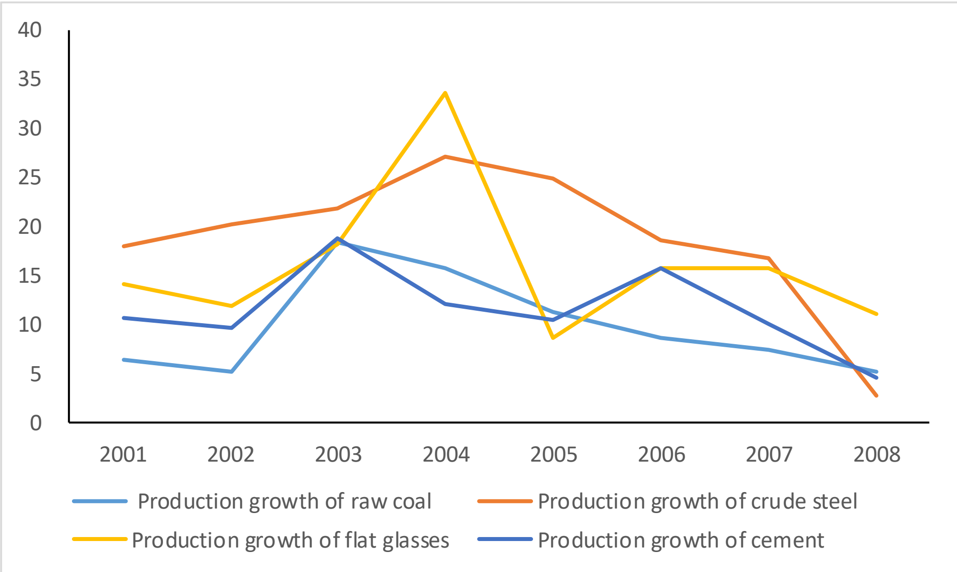


Source: WIND database

Second, the business situation of enterprises had been improved. The product sales rate for the industrial enterprises above the designated size increased from 98.02 % in 2003 to 98.14 % in 2007. The growth of the total profit of the industrial enterprises above the designated size recovered to 39.23 % in 2007 after experiencing a decline.

Third, excess capacity was significantly reduced. The proactive macroeconomic management during 2003-2007 restrained the output increase in surplus industries and eased the contradiction between supply and demand. The output growth of the key surplus industries was curbed, and the output showed a steady downward trend. The year-on-year growth of crude steel production decreased from 27.24% in 2004 to 16.73% in 2007. The year-on-year growth of cement production dropped from 18.91% in 2003 to 10.06%. The year-on-year growth of raw coal production dropped from 18.39% to 7.39%; The year-on-year growth of flat glass production decreased from 33.66% to 15.77%. At the same time, a large number of outdated enterprises and capacities were eliminated. From 2003 to 2007, small thermal power stations with an installed capacity of 21.57 million kilowatts and 11.12 million small coal mines were shut down nationwide; 46.59 million tons of outdated iron smelting capacity, 37.47 million tons of steelmaking capacity and 87 million tons of cement capacity were eliminated.[33]

Figure 24 Production growth of raw coal, crude steel, flat glasses and cement during 2001-2008 (%)



Source: CEInet Statistics Database

7. The Proactive Macroeconomic Management Period Post the Outbreak of the Global Financial Crisis in 2008

(1) Macroeconomic background

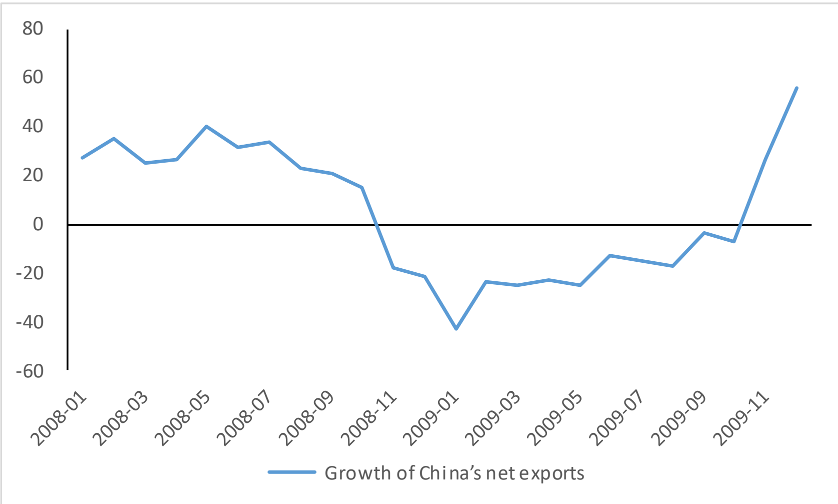
Starting from 2008, the negative impact of the international financial crisis on China's economy gradually emerged. China's economy also shifted from overheating in 2007 to a trend of slowdown from 3Q2008. Among them, the sharp downward trend of external demand played an important role in the decline of China's economic growth.

[33] Report on the Work of the Government (2008).

China's net export growth reached a record high of 40.1% year-on-year in May 2008, then gradually declined and became negative in November 2008. In January 2009, the year-on-year growth of net exports fell to a record low of -43.06%. There was obvious evidence that external demand shocks had resulted in the slowdown and cooling of China's macro-economy:

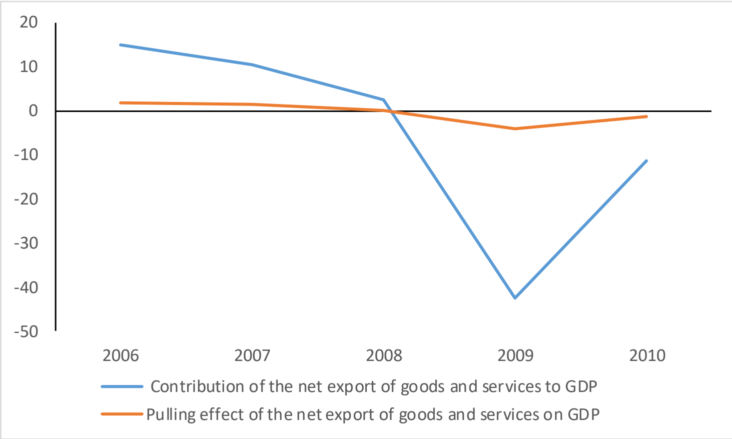
First, the contribution and pulling effect of external demand to/on China's economic growth had changed from positive to negative. The contribution of the net exports of goods and services to GDP dropped sharply from 10.6% in 2007 to 2.6% in 2008 and then to -42.6 % in 2009. The pulling effect of exports of goods and services on economic growth dropped from 0.25% in 2008 to -4% in 2009. The dragging effect of external demand on China's economic growth was easily observed.

Figure 25 Year-on-year growth of China's net exports during 2008-2009(%)



Source: CEInet Statistics Database

Figure 26 Pulling effect and contribution of the net export of goods and services on/to GDP during 2006-2010 (%)

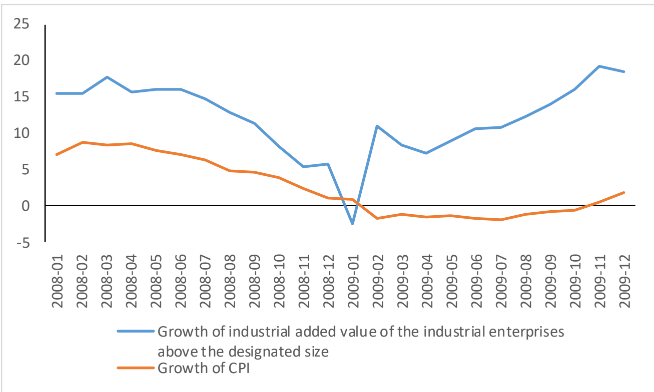


Source: CEInet Statistics Database

Second, the production growth of domestic industrial enterprises was declining. The year-on-year growth of the real industrial added value decreased from 16% in June 2008 to 5.4% in December 2008 and further down to -2.4% in January 2009, showing that the economy experienced a negative growth.

Third, deflation was clearly noticeable. The year-on-year growth of consumer price index dropped rapidly from 8.7% in February 2008 to 1.2% in December 2008, and it became negative in February 2009. The negative year-on-year growth of consumer price index continued until September 2009, during which the deflation was clearly noticeable.

Figure 27 Growth of industrial added value of the industrial enterprises above the designated size and growth of CPI (%)



Source: CEInet Statistics Database

(2) Proactive Macroeconomic Management Measures

In order to cope with the adverse impact of the outbreak of international financial crisis on China's economy, the government adjusted the basic theme of macro-policy in a timely manner. According to the changes in the economic situation and the effect of the regulatory policies, the basic of of "*double prevention*" (prevention of economic overheating and prevention of obvious inflation) in early 2008 was changed to the basic theme of "*One Maintenance, One Control*" (maintaining economic growth and controlling price hiking) in the middle of the year, and then to the basic theme of "*One Maintenance, One Expansion and One Adjustment*" (maintaining economic growth, expanding domestic demand and adjusting structure) in 4Q2008. In terms of the actual implementation the Proactive Macroeconomic Management policies and the responses to the situations, the first was to a proactive fiscal policy and a moderately easy monetary policy. The second was to formulate and implement an industrial revitalization plan; Third was to accelerate the reform of key areas and crucial parts.

(1) Implemented a proactive fiscal policy and a moderately easy monetary policy

Implemented a proactive fiscal policy. The executive meeting of the State Council in November 2008 approved the "RMB4 trillion" stimulation package to increase domestic demand and promote the economic growth. The plan also included measures to significantly increase government spending and implement structural tax cut. In addition to increasing investment in railway, highway, rail transportation, airport, water conservancy and other infrastructure projects, the investments in post-disaster reconstruction, affordable housing, rural well-being projects and public welfare projects were also creased. And the central government also allocated funds to subsidize home appliances sold in the rural areas to promote the growth of rural consumption.

Implemented a moderately easy monetary policy. On the one hand, the benchmark deposit and lending interest rate had been lowered several times in a row. From September 2008 to December 2008, the central bank lowered the benchmark deposit and lending interest rate four times in a row in three months. The benchmark interest rate of the one-year loan dropped from 7.47% to 5.31%. The benchmark interest rate of the one-year deposit dropped from 4.14% to 2.25%. On the other hand, the reserve requirement ratio (RRR) had been cut several times in a row. From September to December 2008, the RRR for large financial institutions was lowered three times in a row and was lowered from 17.5% to 15.5%. The RRR for small and medium-sized financial institutions was lowered four times in a row and was lowered from 17.5% to 13.5%. In addition, the credit limits on the commercial banks were removed to release the liquidity and stimulate the economy.

(2) Formulate and implement the plan to revitalize ten key industries. On the one hand, the Adjustment and Revitalization Plan for ten key industries (including steel, automobile, shipbuilding, petrochemical, light industry, textile, non-ferrous metals, equipment manufacturing, electronic information and logistics) has been drafted so as to stimulate the growth of industries in the upstream and downstream of the value chains and revitalize the economy. On the other hand, the promotion of the scientific and technological innovation was integrated into the industrial revitalization to encourage enterprises to speed up technological upgrading. In 2009, a specialized fund of RMB20 billion was allocated to support 4,441 technological upgrading projects.

(3) Accelerate the reform of key areas and crucial parts. The response to the international financial crisis was taken as an opportunity to deepen the reform and intensify the reform efforts. In 2009, VAT transformation was fully implemented, and the reform of refined oil prices and taxes and fees was smoothly carried out. The process of commercializing the National Development Bank and introducing joint-stock system in the Agricultural Bank of China (ABC) was carried forward; RMB cross-border trade settlement was launched on a pilot basis. The ChinNext stock market was launched to open a new financing channels for the independent innovation companies and other growth start-ups. The reform of local government departments was proceeded, and the reform of the institutions by type on a pilot basis was kicked off.[34] The reforms in these key areas and crucial parts effectively promoted economic and social development and played a positive role in boosting market confidence and expanding domestic demand.

(3) Effectiveness of Proactive Macroeconomic Management

This Proactive Macroeconomic Management to cope with the adverse effects of the outbreak of the international financial crisis, this Macroeconomic Management featured as highly forceful, faster in pace and highly effective. China's economy has recovered strongly from the adverse effects of the crisis very quickly, taking the lead in getting out of the crisis and contributing to the recovery of the world economy. In 2008 and 2009, China's real GDP grew as high as 9.7% and 9.4% respectively. The growth of real industrial added value reached 10% and 9.1% respectively, while the growth of fixed asset investment in manufacturing industry reached as high as of 27.4% and 24.5% respectively.

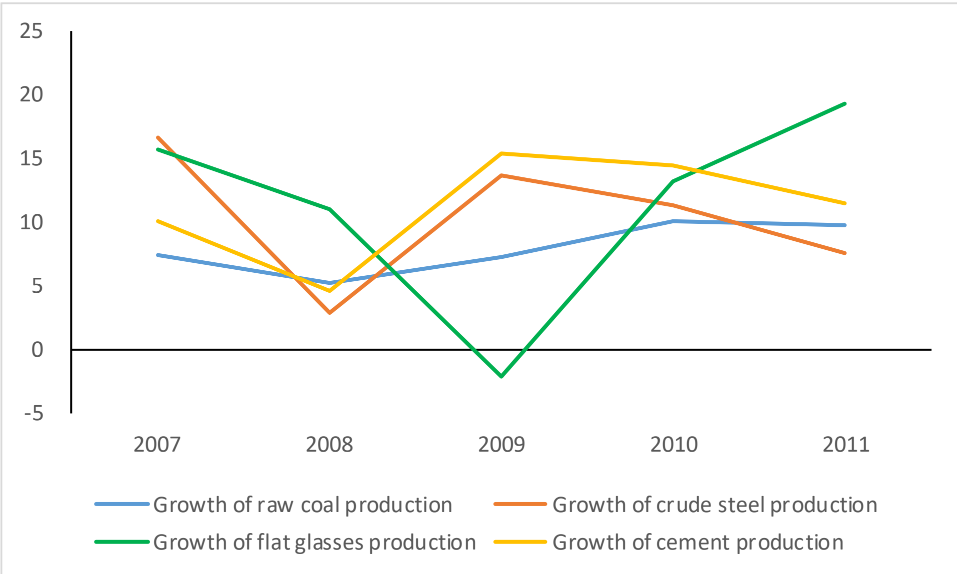
The Mergers and Acquisitions and restructuring of key industries made new achievements. The government made great efforts to curb the overcapacity of some

---

[34] *Report on the Work of the Government*, delivered by Wen Jiabao, Premier of the State Council at the Third Session of the Eleventh National People's Congress on March 5, 2010.

industries. 26.17 million kilowatts of small thermal power stations were closed down; the outdated facilities with total production capacity of 16.91 million tons in the steelmaking industry, 21.13 million tons in the iron-smelting industry, 74.16 million tons in the cement industry, and 18.09 million tons in the coke industry were eliminated.[35] However, this large-scale stimulus also brought about certain negative effects. For example, repeated investment in industries with excess capacity, such as steel, was stimulated and led to overheating and inflation in during 2010 - 2011.

Figure 28 Year-on-Year growth of raw coal, crude steel, flat glasses and cement production during 2007-2011 (%)



Source: CEInet Statistics Database

China realized rapid economic growth and rise of inflation in 2010 to 2011. Real GDP growth in 2010 and 2011 reached 10.6% and 9.5% respectively. Consumer price index growth reached 3.3% and 5.4% respectively, and food prices represented by agricultural products hiked even more strongly. The total fixed assets investment in the whole society grew strongly and the year-on-year growth rate reached 23.83% and 23.76% respectively. In order to curb the strong price hiking dynamics and prevent the economy from overheating, the government made the overall price stabilization as the top priority of its proactive macroeconomic management while maintain the relatively fast economic growth, and paid attention to the prudent flexibility, moderation, goal-

[35] Ibid.

orientation, and proactiveness in implementing its proactive macroeconomic management.

First, the government changed the direction of monetary policy in time. The monetary policy was changed from the basic theme of moderately loose to moderately easy, and efforts were made to manage the inflation expectations. Reserve Requirement Ratio (RRR), benchmark deposit and lending interest rate, open market operations and other market-oriented monetary policy tools were used in a comprehensive approach to tighten money supply and curb inflation. From January 2010 to November 2011, the central bank raised the RRR for large financial institutions 12 times in a row or from 15.5% to 21.5%. And from November 2010 to November 2011, the central bank raised the RRR for small and medium-sized financial institutions 9 times in a row or from 13.5% to 18%. From October 2010 to July 2011, the benchmark deposit and lending interest rate was raised several times. The benchmark interest rate for one-year deposit and loan was raised from 2.5% to 3.5% and from 5.56% to 6.56% respectively.

Second, the government continued its proactive fiscal policies and focused on bringing the role of fiscal policies in stabilizing growth and adjusting the structures into full play. While reducing the general spending, the government strengthened local debt management, blocked the construction projects without informed studies, and optimized the structure of fiscal spending. Emphasis was given to the implementation of fiscal and monetary policies together with investment, land, trade and other policies in a coordinated approach to form a policy portfolio with economic measures being primary policy and administrative measures as complementary policy.

Third, the government accelerated the structural adjustment and intensified the reforms. It actively promoted the transformation of the economic development mode and attached attention to the quality and efficiency of the growth. The inflation was curbed by means of ensuring the adequate supply of agricultural products, reducing their distribution costs and strengthening price regulation. At the same time, the government vigorously promoted the reforms in the fiscal, tax, financial, investment systems and as well as the resources and environment.

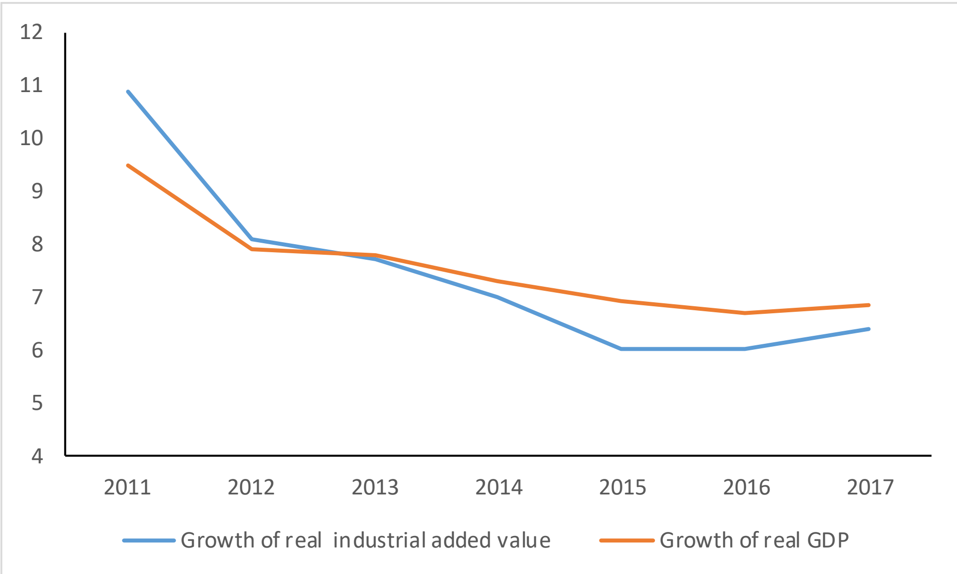
Through the proactive macroeconomic management via tightening policies, the excessive price hiking dynamics were finally under control. Consumer price index (CPI) and producer price index (PPI) dropped month-on-month gradually from August 2011.

8. The Macroeconomic Management Period of Continuing Economic Growth Slowdown from 2012 to 2016

(1) Macroeconomic background

Starting from 2012, China's economy entered the "new normal" , the potential economic growth rate continued to decline, and the real economic growth also begun to shift from a high-speed growth platform to a medium-high-speed growth platform. China's real GDP growth gradually dropped from 9.5 % in 2011 to 7.9% in 2012, 7.8% in 2013, 7.3% in 2014, 6.9% in 2015 and 6.7% in 2016, and the momentum of economic growth significantly weakened. The real growth of industrial added value dropped from 10.9% in 2011 to 6 % in 2015 and 2016, with a clearly noticeable downward trend (Figure 29).

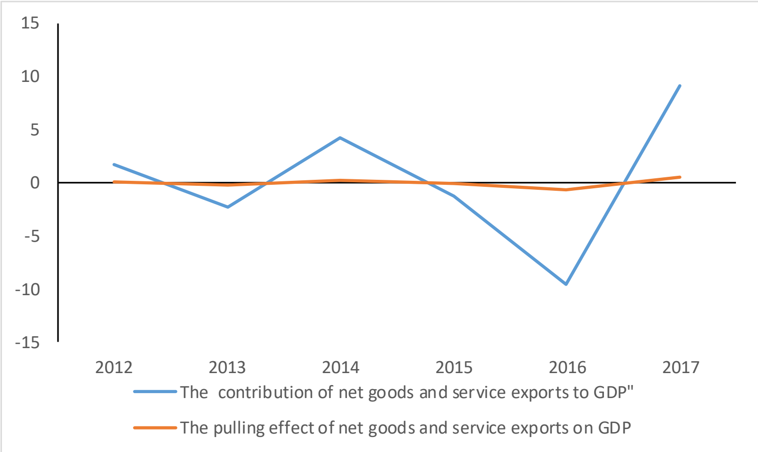
Figure 29 Year-on-Year growth of real GDP and industrial added value during 2011-2017 (%)



Source: CEInet Statistics Database

First, the pulling effect of exports on the economy has obviously weakened. With the rise of labor costs and the gradual disappearance of China's demographic dividend, the low-cost export advantage of labor-intensive products has also diminished, and the pulling effect of export on China's economic growth also shown a downward trend. From 2012 to 2016, the contribution of net exports of goods and services to China's GDP hovered between -9.6% and 4.3%, and the pulling rate of net exports of goods and services on the GDP hovered around zero, and the pulling effect of net exports on the economy was already quite weak.

Figure 30 The pulling effect and contribution of net goods and service exports on/to GDP (%)



Source: CEInet Statistics Database

Second, the growth of fixed asset investment in all sectors declined sharply. The growth of fixed asset investment in the whole society kept declining sharply from 20.2% in 2012 to 5.7% in 2017. Among them, the growth of fixed asset investment in manufacturing decreased from 21.3% in 2012 to 3.1% in 2017. The fixed assets investment in real estate decreased from 21.4% in 2012 to 2.7% in 2017. So, it was evident that the growth of investments in all sectors was slow, and growth dropped sharply.

Third, the oversupply of industrial industries is still very severe. Among them, some industries like steel, coal, electrolytic aluminum, cement and chemical and etc. still faced serious overcapacity problem. By the end of 2012, the capacity utilizations of China's steel, cement, aluminum, flat glass and ship building were only 72%, 73.7%, 71.9%, 73.1% and 75% respectively, significantly lower than international standards and general levels. Serious overcapacity resulted in a sharp decline of profits in steel, aluminum, shipbuilding and other industries, the companies in these sectors generally experienced operating difficulties. However, there were still some projects under construction and proposed project in these industries with serious overcapacity, which would make the overcapacity situation even worse.[36]

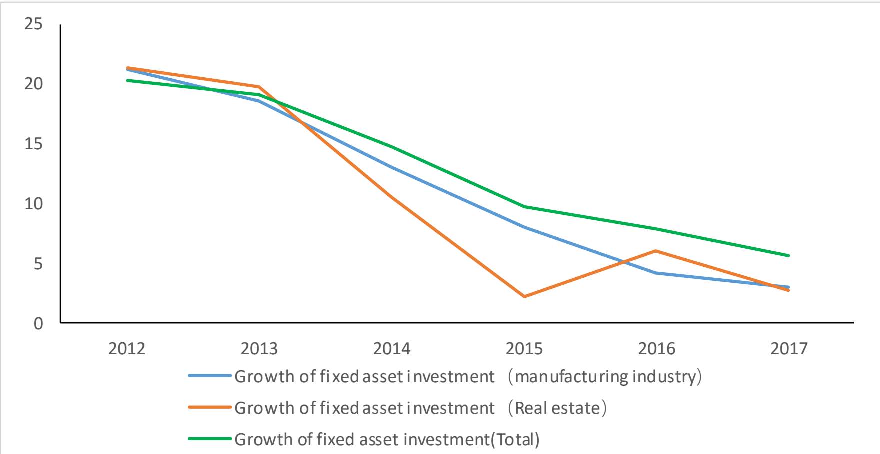
Four, the price in consumption and production areas occurred the structural deflation. Deflation occurred in the industrial sector because of oversupply. Under the circumstances of economic slowdown, the overcapacity problem in the upstream industrial sector is more prominent, which was directly reflected in the drop in the ex-

---

[36] Guiding Opinions of the State Council on Resolving Serious Production Overcapacity (Guofa [2013] No. 41).

factory price of industrial products. From March 2012 to August 2016, the producer price index (PPI) experienced negative growth for 54 consecutive months, indicating that prices in industry had been in deflation for a long time. Although the CPI growth in the consumer sector did not show negative growth year-on-year, the CPI growth once hovered around 1%, indicating that the inflation slowdown was clearly noticeable, and there would be a risk of deflation if it would continue to decline.

Figure 31 Year-on-year growth of fixed asset investment during 2012-2017(%)



Source: CEInet Statistics Database

(2) Proactive Macroeconomic Management Measures

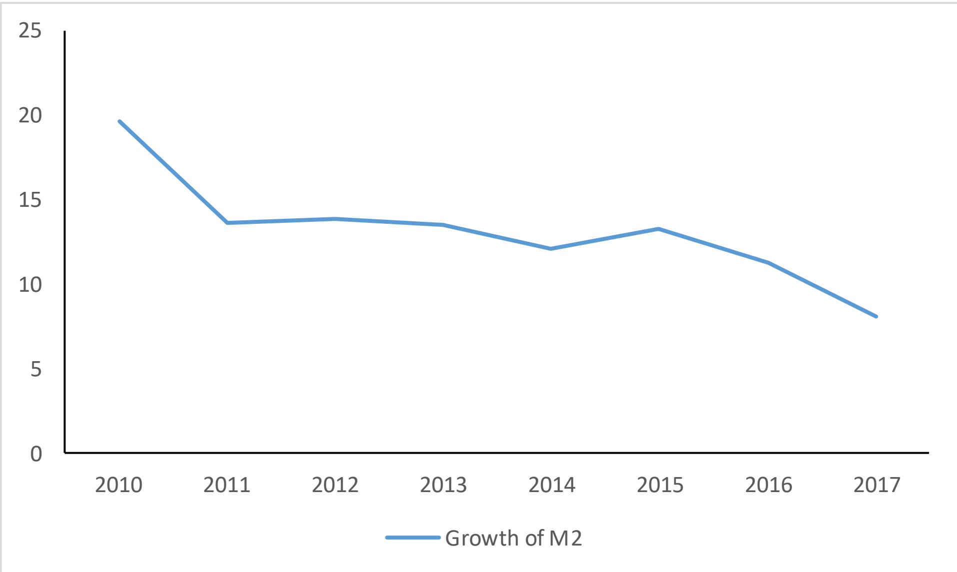
In response to the declining trend of economic and investment growth, the government did not engage in "flood irrigation" type of strong stimulation but adapted to the new normal of economic development and initiated macroeconomic management through the combination of structural reforms on the supply side and range-based regulation on the demand side. The focus was given to the supply side structural reforms when the economy was operating in a reasonable range; When the economy was going to break through the lower end of the range, the directional and precise regulations were made via of the fiscal and monetary policies to keep the economy in a reasonable range to win time and space for structural reform. Meanwhile, the market and administrative measures were used to help overcapacity industries and companies with outdated technologies exit and speed up the market clearing.

(1)Implemented a proactive fiscal policy and a prudent monetary policy

Implemented a proactive fiscal policy. On the one hand, the government moderately increased the fiscal deficit and the government debt, had the fiscal deficit ratio of during 2012-2017 within the upper limit of 3%, and proposed to maintain a larger fiscal deficit at RMB800 billion, RMB1.2 trillion, RMB1.35 trillion, RMB1.62 trillion, RMB2.18 trillion and RMB2.38 trillion respectively in during 2012-2017. On the other hand, the government tried to rationalize the fiscal spending structure and increase the fiscal spending to plug the gaps and improve people's well-being. The focus of fiscal spending was shifted to improve people's well-being and the key projects and local governments were allowed to local government bond via the local government bond replacement program. In addition, business tax was replaced by VAT, and many taxes and fees were cut so as to reduce the burden of the small and micro enterprises.

Implemented a prudent monetary policy On the one hand, the gate of the money supply was strictly under control to slow down the growth of the broad money supply. Since 2012, the growth of broad money supply M2 decreased from 13.6% in 2011 to 12.2% in 2014 and 8.1% in 2017. On the other hand, the government made an innovative approach in its monetary policy to implement precise regulation. The structural monetary policies such as targeted RRR cuts and targeted re-lending to strengthen credit support to small and micro enterprises, "*agriculture, rural areas and farmers*" and other key and weak areas.

Figure 32 Growth of broad money supply M2 during 2010-2017(%)



Source: CEInet Statistics Database

(2) Efforts were made to promote the supply side structural reforms and speed up the rationalization and upgrading of the economic structure. In order to increase effective supply and cut inefficient capacity, some major tasks in supply side structural reforms were actively carries out, including removing capacity, cutting inventory, de-

leveraging, cutting cost and plugging gaps. The government also made efforts to deepen the reform of "*Streamlining Administration, Delegating Power and Strengthening Regulation*" and accelerate the transformation of government functions to provide vitality for the economic growth. The supply side structural reform took both the current situation and the long-term perspective into consideration and aimed at catching the opportunity to enhance efforts to eliminate the outstanding contradictions and deep-rooted institutional obstacles limiting and impacting on the long term economic and social development, while maintaining a relatively stable economic growth.

(3) The "*hand of government*" was used to help "*the hand of market*" to reduce overcapacity and respond to the "*War of Attrition*" among enterprises. When the economy was cooling down and overcapacity occurred, companies were reluctant to exit and chose to engage in the "*War of Attrition*" even facing excessive competition and loss of the whole industry, since they generally believed that as long as they could survive, they would be the final winner when the economy start to recover. Therefore, when market mechanism fails, it would take too much time to complete the market clearing via the functioning of market mechanism, it would result in waste of the social resources and loss of welfare. Therefore, it is necessary for the government to adopt certain administrative measures and to use the "*hand of government*" to help the " *hand of market*" to force enterprises to exit. This round of the proactive macroeconomic management aimed to help companies exit, deny the entry of the outdated companies and remove the overcapacity by bring the role of market mechanism and the guidance of the central government into full play, strengthening the restraint on and incentives to the local governments and enterprises. In this process, the central government, local government and the enterprises played their roles at the same time, and their main responsibilities are as follows (Table 10):

Table 10 Responsibilities and tasks of each entity in the market clearing process initiated by the "*hand of market*" with the help of the "*hand of government*"

Entity	Overall responsibilities	Specific tasks
Central government and related departments	Play the overall decision-making, leading and regulatory	① Formulate the standards for the exit of outdated companies and removal of overcapacity and specify and allocate the overall task of removing production capacity;

and commissions	role in helping outdated enterprises and capacities exit	Including the formulation of industrial standards on technology, environmental protection and energy consumption for outdated production capacity, force enterprises that do not meet the standards to close; and provide guidance on their expectations to prevent small and outdated enterprises from entering into the market. ② Hold the local governments accountable for the exit of outdated companies and removal of overcapacity, and the fulfillment of this task would be reviewed during their performance review process via an incentive and punishment mechanism; ③Assign inspection teams to supervise and review the execution process, and punish those accountable; ④ Allocate funds to local governments and companies as an incentive and offer favorable policies
Enterprises	Mainly responsible for removing the overcapacity	①Responsible for its profits and losses, and exit from the market based on the price signal of the market; ②Forced to close the factories, suspend production, merge with others, and switch into other businesses according to related criteria.
Local governments	Responsible for ensuring the exit of outdated companies and removal of overcapacity within the region	①Execute the overcapacity removal tasks designated by the central government; ② Protection or doing nothing in handling the outdated companies and overcapacity for the sake of local GDP and tax revenue was not allowed; ③ Draft detailed execution plan and organize the execution based on the specific

		situation, and force the closure or exit of the companies

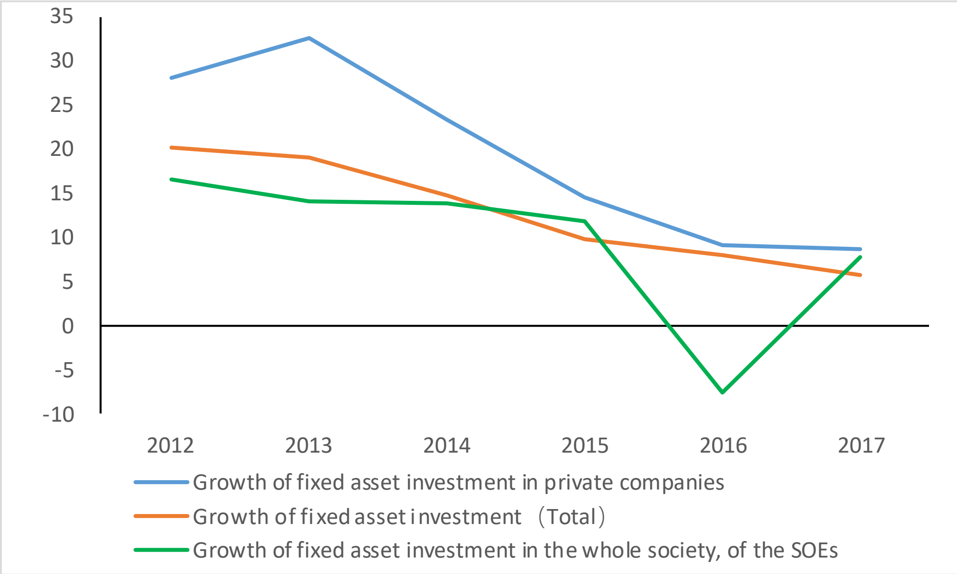
Source: summarized by the author based on related documents

(3) Effectiveness of Proactive Macroeconomic Management

Since the economy entered into the state of the new normal, the government initiated proactive macroeconomic management through the combination of structural reforms on the supply side and range-based regulation on the demand side and used the "*hand of government*" to help the " *hand of market*" to force enterprises to exit and speed up the market clearing, such measures achieved very good results. During 2012-2016, the economic growth had maintained at a reasonable range of over 6.5%. The labor market had performed well, with more than 66 million new jobs created in cities and towns from 2013 to 2017. The overall price rebounded from bottom, and the ex-factory price index of industrial producers ended the negative growth for 54 consecutive months in August 2016, indicating that the problem of industrial overcapacity had been alleviated. The risk of deflation in the consumer sector was eliminated, and the growth of CPI was up to more than 2%, indicating that the supply and demand situation in the consumer sector basically reached equilibrium.

Repeated investment in industries with overcapacity had been curbed and the investment growth had declined. The growth of fixed asset investment in the whole society dropped from 20.3% in 2012 to 7.8% in 2017. The growth of investment by SOEs dropped from 16.6% to 7.8% in 2017, and such growth recorded a negative value of -7.6% in 2016.

Figure 33 Growth of fixed asset investment in the whole society, of the SOEs and private companies (%)

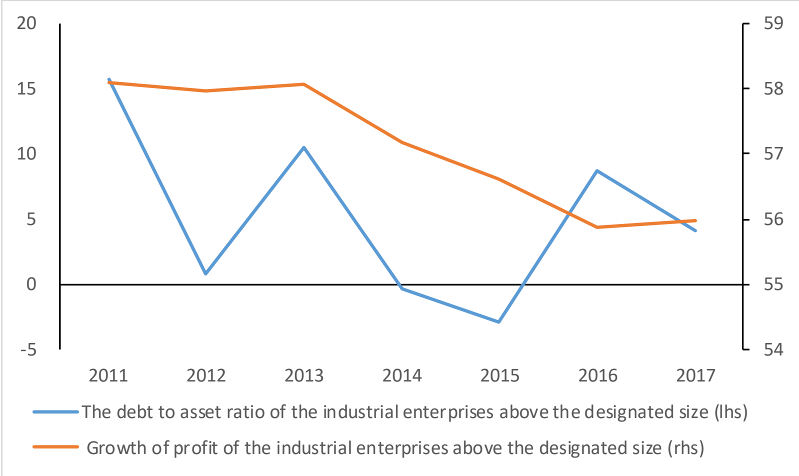


Source: CEInet Statistics Database

Operating performance of the companies improved significantly. The profitability of industrial enterprises had improved, and the profit growth of the industrial enterprises above the designated size turned from the negative value in 2014 and 2015 to positive in 2016 and 2017, increasing by 8.7% and 4.2% respectively. The leverage ratio of industrial enterprises had steadily declined. The debt to asset ratio of the industrial enterprises above the designated size decreased from 58% in 2012 to 55.9% in 2016 and 56% in 2017.

The combination of market and administrative measures played an important role in speeding up the exit of outdated and zombie enterprises and the market clearing. According to data about the steel and coal industry, China removed over 170 million tons of steel capacity and 800 million tons of coal capacity from 2013 to 2017 and reallocated over 1.1 million workers. The steel industry's capacity utilization reached 80% in 2018, compared with 73.6% in 2014 and 71.2% in 2015. At present, the steel price basically returns to a reasonable range, and the profit margin of steel enterprises had been steadily increasing. In 2017, the coal industry's capacity utilization rate increased by 8.7 percentage points and was up to 68.2%. The number of coal mines decreased from 18,000 in 2015 to 7,000 in 2017. The profits of coal enterprises above the designated size in the whole country increased by 290.5 % year-on-year in 2017. So, it was evident that steel, coal and other industries had achieved good results in this proactive macroeconomic management of the overcapacity removal and the exit of enterprises with the help of the government.

Figure 34 Growth of profit and debt to asset ratio of the industrial enterprises above the designated size during 2011-2017(%)



Source: CEInet Statistics Database

Feature 1: "War of Attrition" and its Proactive Macroeconomic Management in 1990s Chinese Textile Industry

At the end of the 1990s, the Chinese government took diligent measures to address and control the overheat in the textile industry, reduce excessive capacity, force out the backward manufacturers, maintain the supply-and-demand balance and speed up the marketclearing. Such measures are valuable for the economic academia to learn lessons and take them as reference. Since the reform and opening-up, in the then-current economic environment that saw a lack of funds and technology lag-behind, the textile industry has become a key industry for investment thanks to its rapid capital turnover, smaller market exposure, lower requirements for equipment and broad job offerings. Between 1985 and 1993, the textile industry has earned a cumulated tax income of RMB 103 billion, a foreign exchange of US$ 110 billion, and once accounted for 29.2% of the total national exports.[37]

After Mr. Deng Xiaoping made his famous speech in the southern tour in 1992 and the fourteenth National Congress of the Chinese Communist Party brought forward the stratagem for building socialism market economy, the enterprises and companies were greatly incentivized and rushed to invest the textile industry and enlarge the capacity to seize the opportunity in the market competition, which was called "Rush to the Top" tide. The soft budget constraint faced with the state-owned textile enterprises also exacerbated the over-investment, which resulted in over-rapid amassment of

[37] Notice for Opinions on Resolution of Issues Existing in Cotton Textile Industry Approved and Forwarded by the State Council to State Economic and Trade Commission, State Development Planning Commission and China National Textile Council, February, 1994

capacity, low-level redundant construction, serious inventory backlog and excessive supply. As a result, the whole textile industry saw a substantial shrinkage of profits or even losses: in 1992, the profit was only RMB 1.3 billion, and in 1993 the industry even recorded a loss of RMB 500 million. Ever since 1992, the government started to reform the industry by reducing spindles, requiring a reduction of 1 million outdated spindles per year. In 1993, against the backdrop of rising cotton prices and rapid cost increase in the textile industry, the government unveiled the *Opinions on Resolution of Issues Existing in Cotton Textile Industry*, which required a continuous implementation of spindle reduction and transformation policies until a cumulative 5 million spindles were to be reduced in 1996.

However, with the deepening of spindle reduction initiative, a "War of Attrition" came into sight on the market. Out of a general expectation that the one who can ultimately remain and survive the capacity reduction will become the biggest beneficiary, more and more textile companies took a "wait-and-see" attitude and "attrition" strategy, and preferred to suffer a loss rather than exit or reduce capacity. Some even "pretend to reduce spindles" to fraudulently obtain financial subsidies. Finally the balance of microscopic inter-company contest triggered and intensified the macroeconomic fluctuations, as statistics showed that China had 41.92 million knitting spindles in 1991, and still 41.71 million in 1996, only 210 thousand less[38], and the textile industry suffered RMB 4.1 billion and 7.1 billion respectively in 1995 and 1996.

The shock of financial crisis in Asia further aggravated the conflict between excessive supply and insufficient effective demand. In 1997, the fifteenth National Congress of the Chinese Communist Party required to take about three years to drag most state-owned large and medium-sized deficit enterprises out of difficulties by way of reform, reorganization, transformation and enhanced management, with an aim that by the end of 2000, most state-owned large and medium-sized key enterprises will have an embryo-form modern enterprise organization in place. Thereafter, the textile industry has not only become the key to the proactive macroeconomic management for de-capacity, but a breakthrough point to advance the state-owned enterprise reforms as well. In November, 1997, Premier Zhu Rongji pointed out in a visit to the textile industry in Shanghai that the spindle reduction, lay-off and efficiency improvement of the loss-suffering textile industry should be regarded as the breakthrough point for state-owned enterprises to conduct reforms and overcome difficulties[39]. At the

---

[38] Why can't Spindles be Pressed Down? People's Daily, December 4, 1997, 2nd section

[39] Zhu Rongji. Zhu Rongji On the Record (Books 1, 2, 3 and 4) [M]. People's Publishing House, 2011.

beginning of 1998, the State Council published the *Notice of the State Council on Relevant Issues for Deepening Reforms, Restructuring and Turning from Deficits to Profits of Textile Industry*, requiring to use approximately three years from 1998 to reduce and eliminate 10 million outdated knitting spindles, settle 1.2 million laid-off workers, turn from deficits to profits for the entire industry by 2000 and pave the way for textile industry upgrading and revitalization; to fully implement the policy of "encouraging mergers and acquisitions, standardizing bankruptcy, lay-off and settlement, downsizing and increasing efficiency and re-employment initiative" in the process of deepened reform, restructuring and turning from deficits to profits, appropriately settle the laid-off workers and firmly persist in "spindle reduction, downsizing, adjustment and efficiency improving" by reducing and eliminating outdated spindles and focusing on restructuring of the enterprises in the cities with intensive state-owned textile companies.

We can see that these proactive macroeconomic management measures took the primary form of administrative orders, supported by market approaches, and in the meantime pushed ahead the system reform, especially the formation of the modern enterprise policies of state-owned enterprises. This round of measures are mainly featured as follows[40]:

Firstly, to apply administrative measures to persistently reduce and phase out outdated knitting spindles. It is required by the State Council that no region, department or enterprise may, at any time during the Ninth Five-Year Plan period and for any reason whatsoever, introduce new or relocate outdated knitting spindles. The manufacture and sale of cotton spinning frames and other textile machinery shall be strictly subject to the "manufacturing permit" and "purchasing permit," and manufacturing of cotton spinning frames without permit or within China is strictly forbidden. The manufacturers of the cotton spinning frames without permit will receive economic sanctions and the person in charge will be held responsible for such unauthorized manufacture, and at the same time the import of cotton spinning frames will be strictly limited pursuant to relevant regulations.

Secondly, the cost arising from the phase-out of the backward capacity shall be shared among the central government, local government, relevant enterprises and financial institutions. Each thousand spindles reduced will be entitled to a subsidy of RMB 3 million (equally shared between central and local finance) and a discount loan

---

[40] Notice of the State Council on Relevant Issues for Deepening Reforms, Restructuring and Turning from Deficits to Profits of Textile Industry, February 27, 1998

of RMB 2 million (borne by the local finance). In the meantime, the indebtedness of the enterprises will be addressed along the process of spindle reduction and capacity limitation. The state reserve for canceling bad debts of banks in 1998 changed its focus to the textile industry, as the local governments are required to allocate a percentage not lower than that of 1997 for canceling bad debts from the textile industry when preparing their 1998 Year Plan. The measures for canceling bad debts of banks were improved in 1999 to further support the exit of enterprises.

Finally, to use the social security to bolster the reform and well implement the reemployment of the laid-off workers. The laid-off workers have to be appropriately settled subject to different options. In 1998, the *Merger, Bankruptcy and Staff Re-employment Plan of Chinese Enterprises* was published to actively guide the laid-off workers to re-employment.

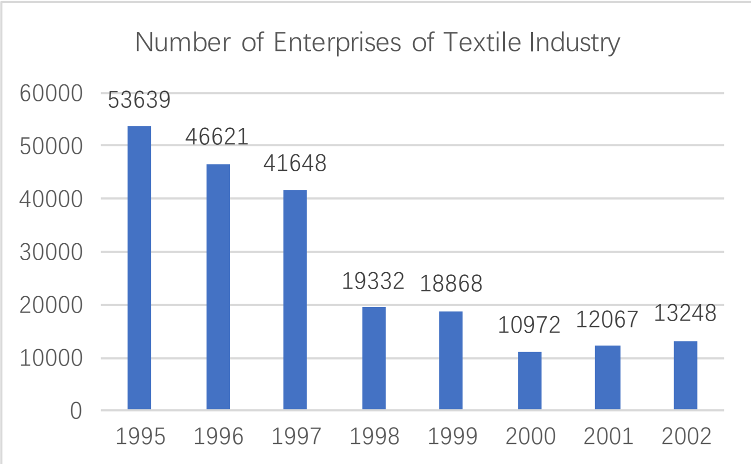
By the end of 1999, the textile industry, as the breakthrough point for the state-owned enterprises to overcome difficulties within three years, has reduced the outmoded knitting spindles by 9.06 million in aggregate, realized a full-year revenue of RMB 800 million and almost hit the three-year spindle reduction target one year earlier than expected, which marked the end of the many years' losses suffered by the industry. In year 2000, the textile industry has successfully accomplished the target of spindle reduction and staff settlement.[41] In particular, the coastal areas have basically accomplished the spindle reduction target in 1998 by phasing out 4.8 million outmoded spindles, settling 600 thousand laid-off workers and decreasing the loss by RMB 3 billion, and other areas basically accomplished the target in 1999 by phasing out 5.2 million spindles.[42] Figures below show that both the number of enterprises and the number of employees dropped considerably at the end of the 1990s, in particular between 1997 and 1999; the fixed asset investment stock decreased between 1998 and 2000, and the fixed asset investment increment is lower than asset depreciation, which demonstrated that the trend of over-investment and blind capacity expansion has been effectively contained.

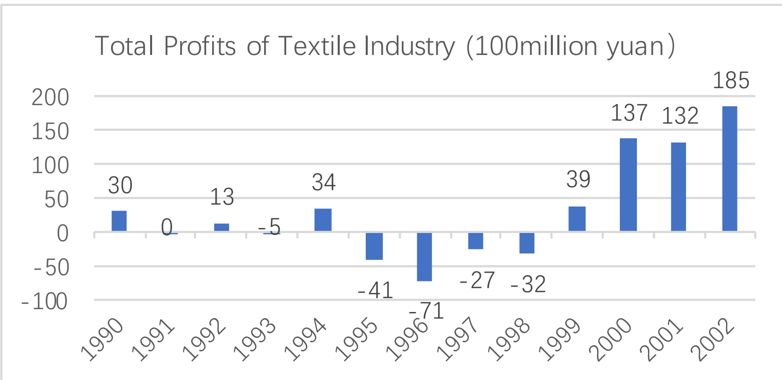
---

[41] Sharpen the Competitive Edge, Embrace New Challenges after China's Entry to WPO, China's Textile Industry Continue to Speed up Structural Adjustment, March, 2000

[42] History is Always Surprisingly Similar: What can State-Owned Enterprise Reform in 1998 and Supply-Side Reform Bring to Us? Fixed Income Research of Industrial Securities

Figure 35: Number of enterprises, number of staff and workers and total profits of textile industry





Source: China Statistical Yearbook, China Textile Industry Yearbook of each year

III. ECONOMICS ANALYSIS

Looking back to the proactive macroeconomic management conducted by the Chinese government since the reform and opening-up in 1978, we may find it a unique opportunity for us to understand and rethink the macroeconomic theories. As analyzed above, we are convinced that the existing mainstream economic textbooks and studies have a deficient understanding of economic cycle and proactive macroeconomic management, but the proactive macroeconomic management experience of the Chinese government since the reform and opening-up may serve as a beneficial supplement to such deficient understanding. In our opinion, the fundamental economic theories reflected in the Chinese government's proactive macroeconomic management efforts in the past forty years may be concisely summarized to the following two aspects:

1. **The equilibrium of games played among enterprises leads to and exacerbates macro-cycle fluctuations.**

The contest between decision makers of the enterprises from the microscopic perspective may trigger and intensify the macroeconomic cycle, amplify the economic fluctuation and bring loss of benefits. To be specific, the "Rush to the Top" during the market access and the "War of Attrition" during the exit of the enterprises, both being an microscopic act, triggered and intensified the economic cyclical fluctuation, and then caused the macroeconomics to repeatedly swing between "over-cold" and "over-hot" (see Figure 36):

(1) When the economy is on the up (the "expansion" period), at the microscopic level, enterprises actively rush to the market, increase their investment and enlarge their capacity, hoping to grab the opportunity in the market competition. Though such act and decision is rational judging from any certain single enterprise, yet at the macroscopic level an ill balance is formed, **which is called "Rush to the Top" herein**. On the one hand, the "Rush to the Top" may easily lead to the economic "overheat" in the short term and put the macro-economy under the pressure of inflation; on the other hand, it may also rapidly accumulate the capacity and sow the seeds of excessive competition, excessive capacity and deflation in the subsequent economic downstream cycle.

(2) When the economy is on the downward (the "recession" period), at the microscopic level, enterprises pursue the strategy of attrition, whereby they are not ready to exit the market despite the impending losses, but rather believe that the competitors will become bankrupt and they will laugh last as long as they keep going. Though such act and decision is rational judging from any certain single enterprise, yet

at the macroscopic level an ill balance is also formed, **which is called "War of Attrition" herein**. The "War of Attrition" will lead to super excessive market capacity, aggravated vicious competition, profitability drop, loss spreading, which will put the macro-economy under the pressure of deflation. The microscopic theories once touched on the "War of Attrition" (Fudenberg & Tirole, 1986; Bulow & Klemperer, 1999)[43], which, however, failed to draw the attention of the macroeconomists unfortunately.

The performance of the Chinese economy after 1998 Asian financial crisis, 2008 U.S. subprime crisis and between 2014 and 2015 provided a typical case for on-the-downward economic cycle, while the performance in the periods of 1985-1986, 1988-1989, 1993-1994 and 2003-2007 provided a typical case for on-the-up economic cycle (see Table 11). Generally speaking, the developing countries may experience more intense cold/heat fluctuation compared with mature developed countries, and China, being a developing country in the transition from planned economy to market economy, may encounter even more intense macroeconomic cyclical fluctuation due to its regime. First, as state-owned economy has to be subject to "soft budget restraint" (Kornai, 1986, 1998), it tends to make excessive investment when the economy is on the up, which may intensify the "overheat," and on the other hand, it may be reluctant to exit the market voluntarily when the economy is on the downward and therefore faces excessive capacity and suffers loss, which may prolong the process of capacity clearing (Li & Liang, 1998; Qian & Roland, 1999)[44]. Second, contest between local governments and the "Promotion Championship" of the local officials are one of the striking characteristics of China's economic development (Zhou Li'an, 2004, 2007). Local officials and governments are inclined to increase investment and protect local outdated capacity in exchange for GDP and tax income. Such practices will also intensify the economic cyclical fluctuation.

However, it needs to be stressed that such regime-related reasons are by no means root causes that lead to the macroeconomic cyclical fluctuation. Instead, the root cause lies in the universal phenomenon existing in the market economy — the loss of benefits taken as a whole caused by "Rush to the Top" and "War of Attrition," which is deemed

---

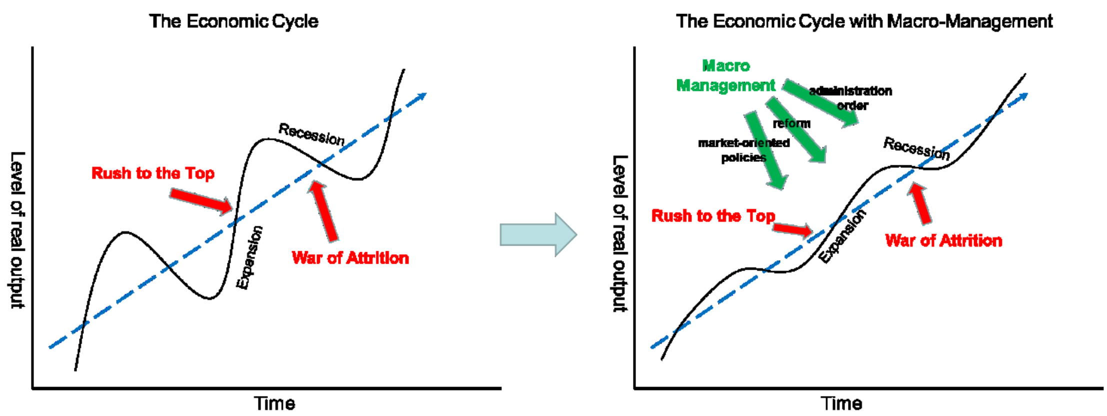
43 Bulow J. I., Klemperer Paul. (1999). The generalized war of attrition. American Economic Review, 89(1), 175-189;

Fudenberg, D., & Tirole, J.. (1986). A theory of exit in duopoly. Econometrica, 54(4), 943-960.

44 Li, D. D., & Liang, M. (1998). Causes of the Soft Budget Constraint: Evidence on Three Explanations. Journal of Comparative Economics, 26(1), 104-116;
Qian, Y., & Roland, G. (1999). Federalism and the Soft Budget Constraint. The American Economic Review, 88(5), 1143-1162.

as rational when taken as an individual case. Such loss of benefits tilted the macro-economy into an ill balance. It is shown in the past experience of the Chinese economy that SOEs are not the only participants of “Rush to the Top” and “War of Attrition,” so are a large number of private businesses, which are among the causes that gave rise to severely excessive capacity in such sectors as cement, steel, coal, sheet glass and photovoltaic in 2014 and 2015. In fact, even in those economies that are widely recognized as having a higher level of marketization, it is also common that “Rush to the Top” and “War of Attrition” caused economic cyclical fluctuation and loss of overall social welfare. The rise and fall of “Internet Bubble” between 1995 and 2001 may be taken as a typical case for “Rush to the Top,” and the long-term excessive competition and resource consumption of the U.S. airline industry can serve as an example for both “Rush to the Top” and “War of Attrition” (see details in Feature 2).

Figure 36: Schematic diagram of economic cycle and Proactive Macroeconomic Management



Source: prepared by the author

2. **The government needs to utilize market, reform, and administrative means (“Three Arrows”) to stabilize macro economy.**

The “visible hand” of the government shall help the “invisible hand” of the market to stabilize the cyclical fluctuations via proactive macroeconomic management and improve the overall economic welfare, so as to avoid “loss of overall welfare due to individual rational behavior”: when the economy is too “hot,” the government shall leverage the proactive macroeconomic management to limit excessive investment and repetition of construction, control the size of infrastructure construction and put the lid on inflation; when the economy is too “cold,” the government shall also leverage the proactive macroeconomic management to accelerate the exit of outdated capacity, drive the capacity clearing, and at the same time expand the infrastructure construction, stimulate the total demands and help the economy step out of deflation.

Looking back to the past forty years, one of the key reasons why the Chinese economy was able to realize a long-term steady and rapid economic growth and managed to turn itself from a low-income economy to a medium and high income economy is that the government has properly used the proactive macroeconomic management measures to successfully resolve the challenge of economic "over-cold" and "overheat" and avoid great shocks in economy.

Chinese government fired "three arrows at the same time" in its proactive macroeconomic management — by applying the combination of market approaches, administrative orders and system reforms, cool the market when the macro-economy is too "hot," and warm the market when the economy is too "cold," so as to stabilize the economic development in the short run, and to promote the optimized allocation of resources and improve the social welfare in the long run, which is briefly summarized as follows (Table 11):

Market Approaches: (1) by utilizing such monetary policy tools as adjustment of deposit and lending benchmark rates and RRR, to indirectly influence the investment and financing behavior of the enterprises and saving and consumption decision making of households; (2) by utilizing tax rate adjustment (enterprise income tax rate, export rebate rate, VAT rate, tax incentive for car purchase), fiscal expenditure subsidies for supporting consumption (subsidy for rural appliance purchases), fiscal expenditure subsidies for supporting enterprise equipment upgrading and such other fiscal expenditure tools, to expand or tighten the overall demand.

Administrative Orders: (1) to strictly control the approval of the newly added investment projects and prevent redundant construction in the overheating period; typical case: in 1990s, administrative orders were taken to strictly control the new projects to address the overheated admission to the industries of TV sets, washing machines and refrigerators[45]. (2) to force the outdated capacity out of market via administrative orders in the economic over-cold period; typical cases: "spindle reduction and capacity limitation" in the textile industry in the 1990s, and compulsory de-capacity by directly setting specific quantitative targets for the sectors of steel, cement, electrolytic aluminum, sheet glass, etc. after 2015[46]. For instance, the *Opinions*

---

[45] *Zhu Rongji On the Record* (Book II), Pages 374 and 498

[46] See details in the *Opinions on Dissolving Excess Capacity and Realizing Profitable Development of Steel Industry* (Guo Fa [2016] No. 6) distributed by the State Council on February 1, 2016

on Dissolving Excess Capacity and Realizing Profitable Development of Steel Industry distributed by the State Council in February, 2016 clearly set the targets to reduce the crude steel capacity by 100 to 150 million tons in the five years' period from 2016, and to demand compulsory exit of the enterprises that fail to reach the standard requirements in aspects of environmental protection, energy consumption, quality, safety and technology (see Table 12). Such targets were communicated from central government down the way to each province, city and county. (3) to expand infrastructure construction and directly and indirectly enlarge the overall demands in the economic over-cold period; typical case: in order to address the shock of Asian financial crisis, the central government additionally issued RMB100 billion national bonds in 1998, and put in place RMB100 billion loan solely for expanding the infrastructure construction, including rural power grid upgrading, irrigation project construction, highway construction, granary construction, urban infrastructure construction, interest subsidy for technical transformation, etc. (4) by reducing land approvals, tightening the credit granting and raising the threshold through administrative orders, to "restrict house purchase" on the real property market of key cities.

System reform: to set free economic vitality by pushing ahead economic system reforms and tactfully utilizing the turning point of over-cold or overheat in economy. The typical case of realizing proactive macroeconomic management purposes through reform measures after the outbreak of Asian financial crisis: (1) to drive housing system reform by seizing the appropriate opportunity after the Asian financial crisis, and to turn the original welfare-oriented public housing distribution system to house purchase from market, which not only achieved the effect of short-term proactive macroeconomic management, but also added new momentum to marketization reform and long-term economic growth; and (2) the "expansion of college enrolment" initiative started in 1999 expanded domestic demand and relieved short-term employment pressure on the one hand, and also built up rich talent reserve for long-term economic development. (3) to seize the opportunity to speed up WTO entry negotiations so that China successfully joined WTO in 2001 and the economy was further opened up. (4) the four asset management companies were established to spin off the bad assets of the four state-owned commercial banks, which marked the start of the joint-stock reform of state-owned commercial banks. In another example, the government seized the overheating opportunity between 1993 and 1994 to drive the "tax distribution system" reform, which as a result substantially transformed the basic framework of China's financial and fiscal systems. In conclusion, one of the rules of thumb for the Chinese government's proactive macroeconomic management is that: **to drive system reform**

by tactfully utilizing the opportunity of proactive macroeconomic management, so as to use reform as one of the means of proactive macroeconomic management to stabilize the economic fluctuation, and to use reform to release new vitality and add new momentum to the long-term economic development.

Finally, we have to emphasize that **it is costly to digest the cyclical economic fluctuations purely by replying on the "invisible hand" of the market**. Some believe that the power of the "invisible hand" will finally clear the market, which, for sure, is correct by all means; however, in real practices, it often takes long time to clear the market purely by means of market power and may result in huge waste of social resources. Taking the U.S. airline industry as an example, the market clearing process has lasted as long as over 30 years from the 1980s to the 2010s. Such long waiting period and huge waste of resources are unaffordable for a developing country like China. If we just sit and wait the "invisible hand" of the market to take effect, for a developed country, the abovementioned "Rush to the Top" and "War of Attrition" may only cause back and forth economic fluctuations or sporadic economic crisis, but for a developing country, they may mean interruption or even suspension of the economic development, social turbulence and "middle-income trap." All this has been proved by what many Latin-American and Sub-Saharan African countries have once experienced.

Table 11 The Economic Principles of the Proactive Macroeconomic Management by the Chinese government

	Macro-Economic Performance	Micro-mechanism	Main Measures for Proactive Macroeconomic Management	Typical Period
Economic up cycle	Investors are optimistic and the production capacity is expanding rapidly; Redundant construction; High inflation; Rapid expansion of production capacity may accelerate the economy towards overcapacity.	Rush to the Top	Limit redundant construction, and control the blind expansion of production capacity ; Control the scale of infrastructure construction; Tightening monetary and fiscal policies; Curb inflation;	1984-1985 1988-1989 1993-1994 2003-2007

			Raise nominal interest rates, protect the interests of depositors, and ensure financial stability.	
Economic down cycle	Overcapacity; Deflation; The profitability of enterprises declines; Backward production capacity unwilling to withdraw, which makes the market difficult to clear.	War of Attrition	Accelerate the exit of low quality production capacity and promote market clearing; Active fiscal policy, expansionary monetary policy; Expand infrastructure building, boost aggregate demand, and help the economy escape from deflation; Reform, release vitality, cultivate market and expand domestic demand.	1998-1999 2008-2009 2012-2016

Source: prepared by the author

Table 12 De-capacity Rules of Administrative Orders in Steel Industry

Overall principles: to strictly abide by the laws, regulations and industrial policies relating to environmental protection, energy consumption, quality, safety and technology, and to force out the steel capacity that fails to reach the standard requirements.	
Categorized Metrics	Measures
Environmental Protection	Those whose pollutant discharge rate fails to satisfy the requirements under the Emission Standard of Water Pollutants for Iron and Steel Industry, the Emission Standard of Air Pollutants for Sintering and Pelletizing of Iron and Steel Industry, the Emission Standard of Air Pollutants for Iron Smelt Industry, the Emission Standard of Air Pollutants for Steel Smelt Industry and the Emission Standard of Air Pollutants for Steel Rolling Industry shall receive continuous daily penalty and, in cases of grave violation, shall be ordered shutdown or closure after approved by the competent People's Government.
Energy Consumption	Those who fail to satisfy the statutory standard requirements under the *Norm of Energy Consumption Per Unit Product of Major Individual Process of Crude Steel Manufacturing Process* shall make the rectification within 6 months, and may file an application for no more than 3 months' extension if such extension is necessary. Failure to make the rectification within the time frame or failure to satisfy the requirements for such rectification will cause the capacity to be closed, shut down or to exit the market pursuant to relevant law.
Quality	Those whose steel products fail to satisfy the statutory quality requirements shall be penalized and ordered to stop production for rectification, and those who fail to make the rectification within the time frame or fail to satisfy the requirements for such rectification will be closed, shut down or to exit the market pursuant to law.
Safety	Those who fail to reach the third grade under enterprise manufacturing safety standard, or whose safety conditions fail to satisfy the standard requirements under the *Safety Regulations for Ironmaking*, the *Safety Regulations for Steelmaking*, the *Gas Safety Regulations for Industrial Enterprises*, shall immediately stop production for rectification, and shall be closed, shut down or exit the market pursuant to the law if they fail to make the rectification within 6 months or still fail to reach the standard after rectification.
Technology	To immediately close, shut down and demolish 400-cubic meter and below iron-making blast furnaces, 30-ton and below steelmaking converters and 30-ton and below steelmaking electric furnaces and such other outdated manufacturing equipment in accordance with the *Catalogue for Guiding Industry Restructuring (2011 Version) (Amendment)*. Those who manufacture substandard steel shall be immediately closed, shut down, demolished and penalized according to the law.

Source: Opinions on Dissolving Excess Capacity and Realizing Profitable Development of Steel Industry issued by the State Council, February, 2016.

Feature 2: "Dream of Empire" of Airline Companies and Excessive Competition in U.S. Civil Aviation Industry

In 1978, the *U.S. Airline Deregulation Act* was enacted to loosen the U.S. government's grip of the air ticket price, air route and market access, and then the supervisory power of Civil Aeronautics Board also started to be withdrawn gradually. As a result, the airline companies began to be able to freely enter and exit the aviation industry and set their own air routes and ticket prices.

Initially deregulation did work as expected, as the average of ticket price actually paid by passengers dropped 30% after considering actual inflation rate between 1976 and 1990[47], and between 1979 and 1988 the number of domestic airports for which American Airlines provided services grew from 50 to 173, and the same number for United Airlines grew from 80 to 169.[48]

With the new players flocking into the market, the existing airline companies were not willing to give up their established position, and therefore tried every means to expand size and improve the capacity in pursuit of economy of scale, and at the same time restrict the development of competitors, hoping to win the "Rush to the Top" and realize the "Dream of Empire." Finally the balance of microscopic inter-company contest triggered and intensified the macro-economic fluctuations. The "Rush to the Top" in aviation prompted enterprises to blindly expand capacity and rapidly accumulate capacity, which as a result led to a vicious price war, illegal booking service and other acts of unfair competition.

Since the 1980s, in a fight for market share, the airline companies have step by step established a special network of hub-and-spoke routes, which, compared with the "fully connected" routes, may adjust the prices more flexibly. Research shows that when new entrants attempt to access the market that operate hub-and-spoke routes, the existing companies will have motives to engage in a price war (Hendricks, Piccione and Tan, 1997).[49]

Unfair competition also lied in many other areas. In the competitive environment of the then-current aviation industry, the companies that have many integrated services like booking and air transport may use technical tools to control the direction of cross-product externality, and thus adversely impact their competitor with no integration of

---

47 Alfred Kahn, "Airline Deregulation", see details at：
http://www.econlib.org/library/Enc1/AirlineDeregulation.html.

48 Ibid.

49 Hendricks, K., M. Piccione and G. Tan (1997), "Entry and Exit in Hub-Spoke Networks," RAND Journal of Economics 28: 291-303.

services. For example, at the early stage of online booking system, the airline company owning this system intentionally placed its own flights ahead of those of the competitors. Given the cost of agency, the travel agencies had no incentive to compare and screen all the flights even if they knew the flights that ranked in the top were not necessarily the best flights. Fisher and Neels (1997) estimated that in 1984 only, such ranking priority translated into an impact of US$58 million.[50]

Faced with a fierce competition, airline companies adopted attrition strategy, and were unwilling to exit the market despite the losses suffered, but rather pin their hopes on the competitors exiting or going bankrupt ahead of them. The balance of inter-company "Rush to the Top" also intensified the economic fluctuations at the macroscopic level, resulted in excessive capacity and heavy loss of the industry as a whole. The aviation industry has suffered loss for as long as 14 years out of the 28 years between 1980 and 2008.[51] Under the intense competition pressure, many airline companies went bankrupt or were acquired, such as Pan American's acquisition of National Airline in 1980, People Express's acquisition of Frontier Airline in 1985, and Northwest Airlines' acquisition of Republic Airlines in 1986. The number of large airline companies dropped from 11 prior to the deregulation to 8 in 1996, and the domestic market share of the three major airline companies grew from 31% in 1981 to 55%[52]. On the other hand, most surviving companies suffered long-term severe loss or even bankruptcy. American Airlines filed for bankruptcy protection for twice in 2002 and 2004 respectively, United Airlines filed in 2002, and Delta Airlines and Northwest Airlines filed in 2005.

After American Airlines merged with Western Airlines in 2005, Delta Airlines acquired Northwest Airlines in 2008, United Airlines merged with Continental Airlines in 2010, Southwest Airlines acquired AirTran Airways in 2012, and American Airlines merged with U.S. Airways in 2013, forming the biggest airline company in the world. To that point, an oligopoly was finally formed in the U.S. aviation industry, which declared the end of as long as over thirty years' excessive competition. As a result, compared with the net loss of US$51.8 billion suffered between 1979 and 2010, the U.S. aviation industry recorded aggregate

---

[50] Fisher, F. and K. Neels (1997), "Estimating the Effects of Display Bias in Computer Reservations Systems," in Microeconomics: Essays in Theory and Applications edited by Maarten-Pieter Schinkel, Massachusetts: Cambridge University Press, 450-483.

[51] China Merchants Securities, Invisible Supply-Side Reform, 9-Year Secular Bull Ten-Baggar – Deep Probe into Mega Bull Market of U.S. Aviation Industry, March 12, 2018.

[52] Kenneth Button, *Transport Economics*, translated by Feng Zongxian, The Commercial Press, 2002.

earnings of US$59.4 billion between 2011 and 2016, which was nearly equal to the aggregate loss of the past thirty years.[53]

We can see from the development history of the U.S. aviation industry that it is really costly to purely rely on the power of market to address the economic cyclical fluctuation. It took the U.S. aviation industry more than thirty years from the deregulation at the end of the 1970s to the financial crisis in 2008 to live through the fluctuation. In this long process the overcapacity and excessive competition have caused long-term loss and unfair competition in the industry, which serves a valuable lesson for us to learn.

53 Da Cheng International Asset Management Company Limited, Will the Aviation Industry have Opportunities for Investment in 2018?