Comparing the Economy Between China and Japan

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Abstract. The purpose of this paper is to acquire the experience from Japanese economic recovery and bubble bursting history after 1946 and to better expect future economic development of China. This research compares the similarities between China and Japan that are based on things such as economic growth, exchange rates, labor force and industries when measures China's and Japan' differences related to development stages, political and economic systems, etc., analyzing some important data including exchange rate, debits, enterprises, etc. The result shows that the economic growth potential, financial policies and economic system of China have significant advantages compared to Japan. To sum up, Chinese government is supposed to regulate the financial system and government policies to avoid financial bubble like Japan's, and many aspects of China evidence that Chinese economic development has development potential in the medium term.

Keywords: China, Japan, Comparative Economics, Economic system, Political economy, Socialist economics.

1. Introduction

Since 1946, western advanced manufacturing techniques were introduced into Japan, and on the other hand, Japan used its own savings and trade surpluses to vigorously promote scientific technology and productivity, creating conditions for economic development, and supporting quality enterprises, providing power for economic development. Thanks to the focusing by the Japanese government, the economy of Japan has been through rapid development which is referred to "miracle" blossoms. (Grimes, William W, 2001) However, there has been a recession in Japan since the bubble of the economy burst because Japanese government used loose monetary policy in the late 1980s that caused excessive monetary tightening until 1992 and finally used expansionary fiscal policy . After the reform and opening-up policy published in China, the economy of China comes to a new stage with repaid growth rate. As time goes by, there are more and more problems in the development of China's economy. We have learned the comparison of the basic socialist and capitalist economic systems. It is known that China is a socialist country, but it is similar to capitalist country, especially Japan. There are differences and also similarities between China and Japan. Recently, several questions were pointed. Will China be the next Japan? Will the future economy of China be in a long-term downturn? China has its own advantages and disadvantages while Japan is the same. But the disadvantages and advantages may be similar. We will distinguish the differences and also compare the similarities between China and Japan. So that we can conclude the point that China must be careful in future development.

2. Similarity

2.1. The growth of Japanese and Chinese economy

As the similarity between China and Japan, one that cannot be forgot to mention is the very similar rise of these two countries. Japanese economy has entered a rapid development period since the 1950s. In general, the Japanese economy has experienced a rapid growth stage during the 1950s to 1960s, it has a medium growth stage during 1970s to 1980s and a low-speed growth stage in 1990s. The annual growth rate dropped from 10 percent during 1950s to 1960s to 5 percent annually during 1970s to 1980s and then dropped to nearly 0 percent annually since 1990s. Compared to Japan, China maintained an economy growth rate around 10 percent since the reform and opening-up. Just as Japan

that experienced the crush of the oil crisis in the early 1970s, and the economic growth rate enter a middle growth from a high growth rate. Chinese economic growth rate dropped from high speed to a middle speed since the impact of the financial crisis in 2008. As we take a look at the driving factors of the growth of economy of China and Japan, it also has some similarities. The factors can be classified as the world factory and investment and trading.

2.2. World factory

Japan is an island country; it has limited land and very limited resources that makes Japan must import most of its industrial materials. However, Japan became a world factory after 1946. “Made in Japan” has taken the world market by its high quality. And China used its vast territory and huge population resources to develop its manufacturing industry. Cheap labor force and wild land become the advantage of China and “Made in China” has taken the world market quickly. China attracts a lot of foreign investment based on cheap labor, which leads to many multinational companies to set up factories or even set headquarters in China. After the second oil shock, Japan has been through a huge industrial restructuring, shifting from resource-based steel and shipbuilding and chemicals to frugal appliances and cars. But the technology underdevelopment technology become a limitation of China to replace the “Made in Japan” because the high quality of “Made in Japan”. China and Japan take their advantages to make the product that can promote the growth of the economy of both countries. There is a evidence that Chinese companies show a steady stream of new companies entering the Fortune 500, while Japanese companies are still found drop of firms that move out of Global Fortune 500 firms.(Benchmarking: An International Journal,2017)

2.3. Investment and trading

The manufacturing industry of Japan become unprecedented prosperity; this makes Japanese product speared in the whole world. Japan begins to invest a lot capital in overseas and acquire the good enterprise around the world. Japan tends to develop international trade and build an export based economy for promoting economic growth. This found a solid foundation for creating a worldwide production and management system by internationalization the capital of Japan. Since China been a member of WTO, China has the advantage in product price due to the lower tariff barriers and the complete of the trade dispute solving system. Chinese product become more and more competitive. China gains more by export more labor-intensive products to the international market because the need of the lower price labor-intensive products. Besides, with the improvement of Chinese technology, there will be technological product and the service provided with it will be more comprehensive.

2.4. High quality of labor

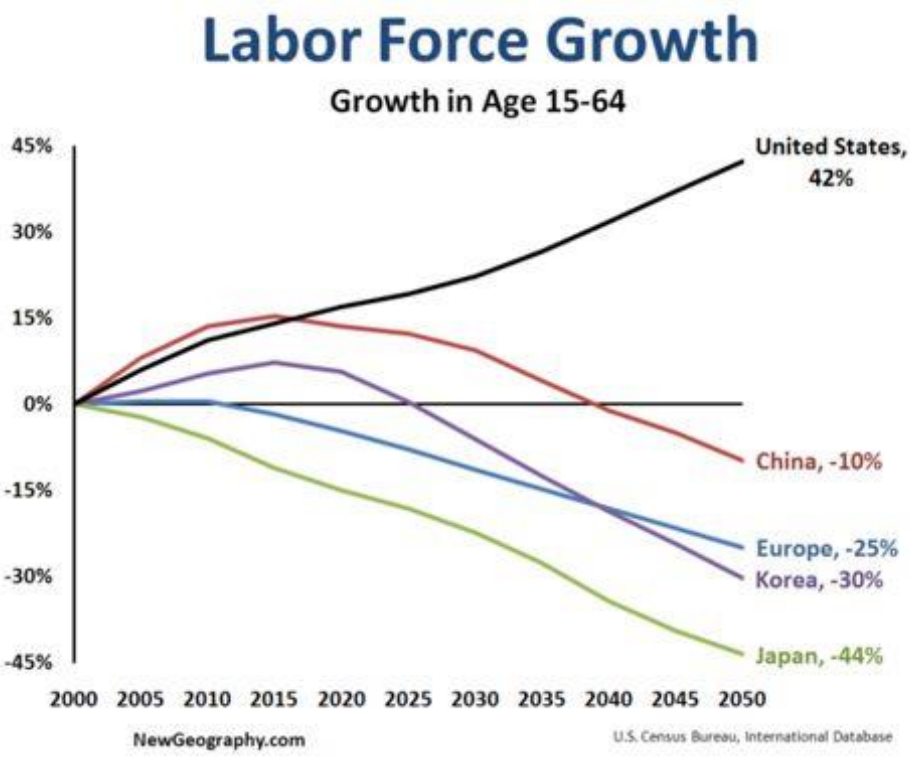

Figure 1. labor force growth comparison

China is the most populous countries in Asia and Japan is the second. They both experience a repaid growth of population after 1946. The growth of population has provided a large number of labor for both China and Japan. It becomes an important reason of the repaid growth of economy of China and Japan.

Japan is very serious with education. Although, the percentage of Japanese students who enter the collage is lower than America but the graduation rate is higher than America. Japan depends on the labor quality to improve the economy growth and the labor productivity which is decided by education. Since 1986, China published the nine-year compulsory education policy to train more talent. The quality of Chinese improved significantly and the manufacturing industry tends to be technology-intensive from labor-intensive. A good education influence people's mind and value, and influence the improvement process of China and Japan in certain degree.

2.5. Aged tendency of population

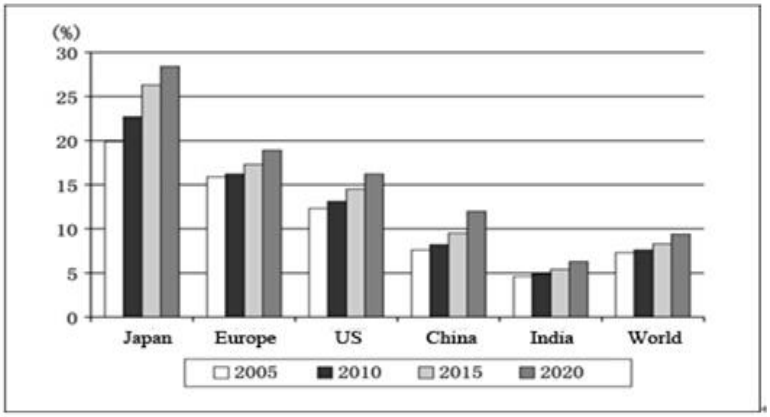

Figure 2. Prospect of population aging in major economies (percentage of population aged above 65)

However, with the aging of the baby boomers' generation after 1950s, the labor force has decreased day by day. The growth rate of the population in Japan tends to slowed since 1990s. And it tends to decrease when comes to 2000s. Family planning was published since the reform and opening-up which lead to the decrease of the growth rate of population and the natural growth rare serious declined. Since 2010, working-age population tends to decrease. On reason is the working labor who was born during 1950s to 1960s retired gradually. And on the other hand, the new born wording labor during 1980s to 1990s decrease seriously. Aging problem become a serious problem that trouble both China and Japan.

2.6. Exchange rate



Figure 3. Exchange rate of China and Japan

The trend of the world is globalization, so that the exchange rate of Japan and China plays an important role in each country's economy. Since 1946, there is a rapid growth of Japanese economy and a strong expectation on the yen appreciate. (World Economy,2016) Without strong effect on output in Japan instead of reducing the current account surpluses when Yen appreciation. But Japanese government takes the system that takes the fixed exchange rate in order to follow the exchange rate of America, so that the exchange rate basically remains stable during 1970s. It changes to a floating exchange rate system after 1970s, the exchange rate continuous appreciate for 20 years. The appreciation of the exchange rate of yen is due to the rapid growth of Japanese economy fundamentally, although it has been influenced by the joint intervention of a lot of countries after plaza accord. And after 1990s, Japanese economy comes to a period of low growth, this was the reason of the exchange rate of yen becomes stable gradually. After the finical and especially after 2012, with the central bank of Japan keep loose the monetary policy, the exchange rate of yen come to a stage of depreciation cycle. On the other side, the exchange rate of RMB is very similar to yen's. China use a fixed exchange rate system in order to follow America before 2005. Although the expectation of the appreciation of RMB's exchange rate is strong, it remains stable. There is a market-oriented from of RMB change in 2005. The exchange rate of RMB appreciate for 10 years. However, with the slowdown of the growth of economy of China. Chinese economy goes into a middle growth stage from a high growth stage. And the exchange rate of RMB experience a rapid depreciation after the "8.11" event. (World Economy, 2016)It tends to reduce the Chinese output instead of having an important effect on the Chinese current account when RMB appreciates. And we can also see from the graph, the change of the exchange rate of yen and RMB are similar.

2.7. Transformation of government-led industries

Both China and Japan are typical government-led economic system, and they have a similarity on the depth and breadth of government intervention economy. During the transition period of China and Japan, both of their government promote the transition of economy by using positive implementation of industrial policies. After the second oil crisis in 1982, Japanese industrial policy tends to pay more attention to support the transition of economy. The percentage of the third industry begin rising, and the growth mode which relies on export tends to focus on both export and import. In 1986, Japanese government published the “long-term vision for the industrial society in the 21st century”, to make “international horizontal division of labor” and “knowledge integration” as the new direction of the development of industrial structure. To make sure the policy work, Japanese government proposal three specific measures: first, stimulate domestic demand; second, promote foreign investment by giving more welfare to investor; third, increase the investment of public to raise the level of national welfare. And China published 10 industry adjustment and revitalization plan, in order to promote the steady and rapid of economy growth on the package. On the other hand, China published hundreds of policies, measurements and also detailed rule that will expand the consumption domestically, stabilize production and accelerate the development of technology. In transition strategy and initiatives, Chinese and Japanese still has similarities. The governments of both countries are concerning about the external pressure and trade surpluses seriously, and also emphasizing expanding domestic demand, shrink current revenue and expenditure imbalances. In April 1986, in order to solve the problem caused by the trade and the current balance of payments surplus that expand external friction, especially to solve economic friction with the United States. Japan listen to the ideas in "Maekawa report" provided by a famous think tank. In view of China, the domestic demand has been dragged behind economic development. After the financial crisis, it is especially important to expand domestic demand in order to sustain economic growth. Therefore, Chinese government propose that if they want to realize an effective complement of domestic demand and foreign demand, they have to put increasing the domestic demand as the most important task. Expanding domestic demand and adjust structure will be the core policy of the central government to promote economic sustainable development implemented.

2.8. Asset bubbles

Not only China, but also Japan has been through a rapid economic growth, and both of them have experienced the accumulation and burst of asset bubbles. In the early 1990s, due to the long-term accumulation of excess capital, the desire of quick success of financial liberalization and two mistakes of monetary policy cause the stock market asset bubble of Japan accumulative fast and burst like it never exist. During the financial crisis, Japanese stock market experience a cliff jump. And Chinese stock market also experience the accumulative and quick burst of asset bubble during 2007 to 2008. In 2015 to 2016, the “leverage bull market” cause another boom and bust of the stock market that makes Chinese economy march on the spot. And the accumulation of land asset bubbles in the two countries is also shocking. During 1986 to 1990, the average price of Tokyo, Osaka and four more country tripled. Land price start rising sharply since 2001. Although there have been repeated, there is no significant signs of the dropping of land price. The bubble of land price still rising in both China and Japan.

3. Difference

3.1. Level of development

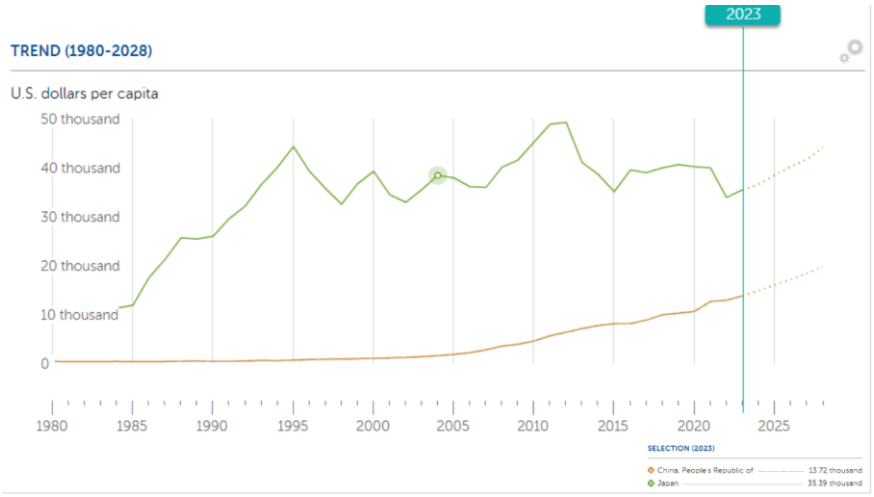

Figure 4. GDP per capita of China and Japan

Even though the Chinese economy has had gone through a more than 30 years of high-speed growth, it has surpassed Japan's second largest economy, but the overall growth of the Chinese economy is still very different from Japan's. Based on the GDP per capita first, China's invariant average GDP in 2014 is not more than us $4,000, and only corresponds to the 1950s level in Japan. We can find the differences from the data of GDP of China and Japan. China's average GDP is about: $951 in 2000, $1753 in 2005, $4560 in 2010, $8,069 in 2015. $10,530 in 2020 and $13,270 in 2023. Differently, Japanese GDP per capita since 20 years ago is: $38532 in 2000, $37,217 in 2005, $48,507 in 2010, $34,567 in 2015, $40,120 in 2020; and $35,390 in 2023. The average GDP of is not comparable. From the perspective of urbanization rate, Japan's urbanization rate has exceeded 90%, and China's urbanization rate has just exceeded 50%. If we take a look at the final demand, Japan has formed a consumption-oriented demand structure, and more than 80% of the economy growth was contributed by the final consumption. As so far, Chinese economy growth still heavily rely on the investment form the foreign. There still has a huge room for consumer demand.

3.2. Economic system

A good system is the core power to promote economic development. It can push the development of productivity. However, a bad system can restrict the production of the wealth. The systems of Japan and China are quite different, not only the economy system but also policy system. After 1946, Japan has formed a market-oriented system rely on the free market. Government play the leading role in the economic development, and it centralize the decision-making power to make social and economy plan and also emergency policy. Those policies made by the government only could only guide the decision-making of the enterprises. This fully motivate production of the enterprises. Thanks to this policy, after 20 years of development, Japan has become a big economic country in the world and mentioned with America and former Soviet Union during that period. When it comes to China, in the early days of the foundation of the People's Republic of China, it started to implement a planned economy. under this economic system, all economic decisions are made by Chinese government which has directly manage the all macroeconomic and microeconomic activities. Planned economy can play a certain role in the early days. But with the development of the world economy, problems keep showing which include highly centralized and enterprises have no enthusiasm for production. In 1978, China stared to change its economic system to market-oriented economic system. This move make market economy gets effective development. Although both China and Japan economy are developing, China still has a long way to catch Japan because Japan is nearly having a mature market.

3.3. Political system

After Meiji restoration in Japan, it begins the political modernization reform and establishes the constitutional monarchy. Japan use the constitutionalism to restrict the imperial power; eliminate the exploitation, enslave and even killing of the masses by the powerful; and also protect lives and property of the masses as well as their working enthusiasm. In contrast, during the same period, China was under the dictatorship of the feudal monarchy. The westernization movement only aimed at the changing on economic system and the renewing on defense which has no help on the political system. As the results ware that the Japanese politicians were honest and the officials of Qing dynasty were corrupt. The consequences were clear: Japan stepped into the world's great powers and became one of them, and China became a semi-colonial, semi-feudal society. However, after the founding of the People's Republic of China, a series of political system reforms were carried out, forming a multi-party cooperation system under the rule of the communist party of China. After repeated failures, China embarked on the path of socialism with Chinese characteristics that the whole government is highly centralizing and many policies could be efficiently implemented, while Japan followed the path of capitalism and closely followed the United States after the Meiji restoration. (Asian survey, 2010) One obvious example is the policy which reformed in response to Japan's protracted recession about the labor market. It is passed because of the centralization of decision-making authority but the coalition partners and political compromise with opposition parties prevented the deregulation for Japan's labor market.

3.4. Nature resource

If we compare the ancient China and Japan, when it's agrarian age, Japan has a very narrow land area which lack of resource, and the number of native people relative to Japan's small nation area is a heavy burden. It was because of that fact that the way of the ancient agriculture of Japan that did not take the country free from poverty. In contrast, ancient China is very rich in land and resource. It also has the climate conditions and soil conditions suitable for the agricultural prosperity. China became the most powerful country in the world during agrarian age. Therefore, before the industrial revolution, Japan is not comparable to China, but now Japan is highly modernized, and Japanese manufacturing is selling all over the world. Although China still leads the world in farming and has a vast territory and abundant resources, it still has a certain gap with Japan in science and technology.

3.5. Debits

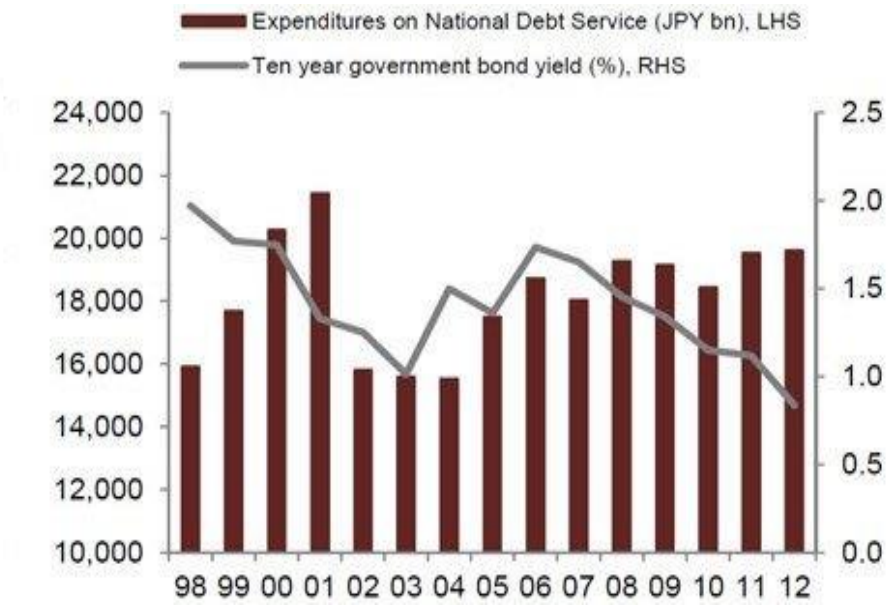

Figure 5. National Debt about Japan

After the economic bubble burst, the Japanese government has taken a radical fiscal policy and substantially increased the financial deficit, Japan hopes to drive economic growth through increased fiscal expenditure. However, the opposite is true. (Richard C. Koo, 2012) In 1995, the short-term interest rates in Japan have been close to zero but most Japanese companies were still paying down debt because it was difficult to find better uses for the money. On the other hand, because of the high level of infrastructure construction in Japan, fiscal investment has played a very limited role in driving economic growth. Instead of stimulating the economy, the huge fiscal deficit has caused a heavy debt burden. By 2015, the ratio of outstanding Japanese public debt to GDP had exceeded 230 percent. Compared with Japan, China is in a better shape. By 2014, China's outstanding public debt accounted for only 33% of its GDP. The infrastructure construction gap in domestic is still large, and there is still a lot of room for fiscal policies. (Lo, Chi, 2021) The situation that mainly creditors of China are households and over 80% of bank's funding is from retail deposits means that the bank is difficult to bankruptcy because people in China always prefer saving money in bank and the government will guarantee the banks.

3.6. Attitudes towards at technology

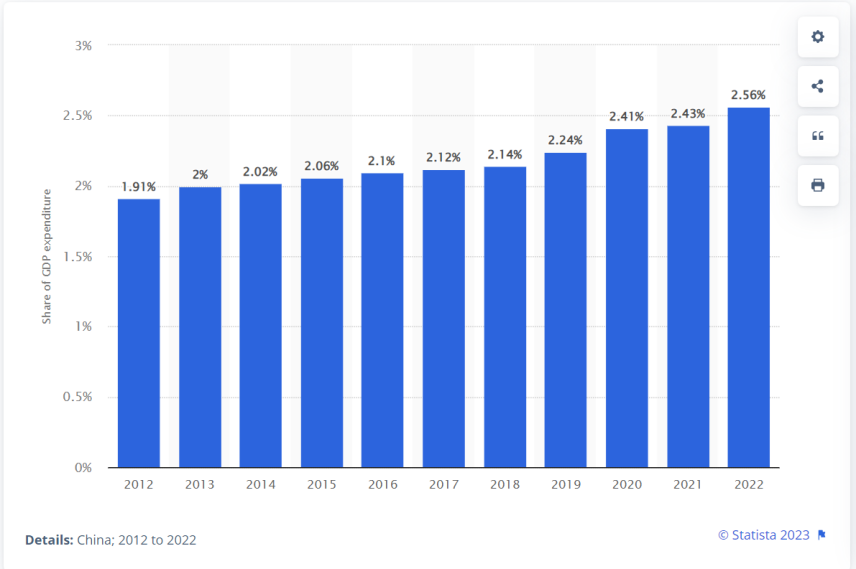

Figure 6. Share of R&D Expenses in GDP

Since the Meiji restoration, Japan has been opened up to the world, and started to absorb advanced western science and technology, and the production road tends to the technology intensive industrial production road in order to improve the international competitive power of Japanese products. And Japan has been sending advanced intellectuals abroad to study abroad since the Meiji restoration, to bring advanced science and technology to the country, so that it can guide Japan's most primitive industrial production. As a series of knowledge and technology was developed, Japan quickly became an advanced industrial country, and it promote the economic growth of Japan. In contrast, li, Hongzhang, an official of the Qing dynasty, who believed that to become a powerful country, one must develop technology and run factories. But they did not actively learn the advanced technology of the west. Instead, only imported the advanced machines and equipment. This did not solve the problem feudal ideology fundamentally. Until 1905, China abolished the imperial examination and try to seek new education system, as a result of the feudal to the classics with superstition, most people in Qing dynasty don't want to learn foreign technology. As a result, China's technology and education structure are seriously backward and conservative. Japan put forward the first "basic science and technology plan" at the end of last century. In 1999, after Japan put forward the strategy of "the founding of science and technology", government spending on research and development significantly increased. Since 2001, Japan has implemented the second basic plan for science and technology. And in the past five years, the government has invested 21 trillion yen, an increase of

more than 40% over the previous five-year plan period. In 2006, Japan began to implement the third basic science and technology plan, with government investment of 25 trillion yen. As we can see through this detail, Japan is more concentrated on the cultivation of talents.

3.7. Enterprises

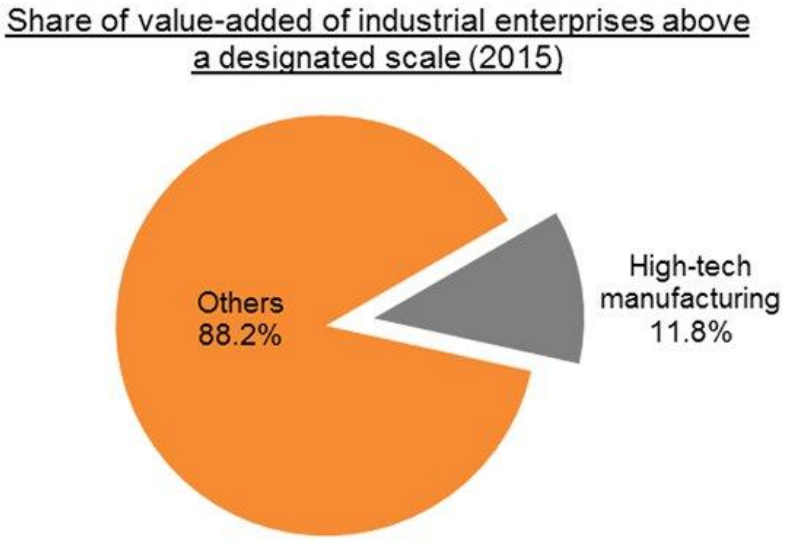

Figure 7. Share of value-added of industrial enterprises

From the perspective of enterprises, in the 1980s, Japanese enterprises were quite mature, owning the world's top enterprises such as Nissan, Toyota, Hitachi, Panasonic, Toshiba and Nippon steel. These enterprises and also include enterprises which are small and medium-sized, they all have mastered many core technologies and formed many famous brands. Compared to European and American enterprises, Japanese enterprises have almost no gap, and their products, semiconductors, home appliances and automobiles, are better than those European and American enterprises. But from Chinese country's present situation, the world top class enterprise very few, the world top class brand even has not appeared. In particular, China's enterprises are lack of independent core technology seriously. Japan's export products from research and development to production and sales can be completed by Japanese companies, almost 100% of their profits. About 60% of China's export products are produced by foreign-funded enterprises, and most of the key parts of export products are imported. Moreover, the more high-end products, the higher the dependence on imported key parts. The profit that Chinese enterprise obtains is very low, quite a part of enterprise is labor cost only just.

4. Analysis

As we have mentioned before, there are two questions pointed out: Will China be the next Japan? And will the future economy of China be in a long-term downturn? We will discuss the first question. As for that, I think China will not repeat Japan's bubble bursting and be the next Japan, at least in the medium term. We make this judgment for several reasons.

First, there is still a big gap between China and Japan in terms of the level of economic development. At present, China's economic growth momentum is still strong, and the potential growth level is still high. Even in the event of sharp fluctuations in asset prices, the impact on the real economy through appropriate measures is relatively limited. This can be seen in the stock market crash in 2008 and 2015. But as China's economic power continues to grow, the impact of the bursting of the bubble will become more severe. The Japanese government's bad decisions in facing the economic bubble and its overly slow policies are the reasons why the Japanese economy has been sluggish so far. Therefore, China must think twice before acting in facing the problems similarly. The government should face up to its own functions and not over intervene in the market, but also not

allow the market to develop on its own. It should find a correct direction and lead the market development under the premise of ensuring the market environment. At the same time, we must guard against the bubble economy and avoid following the old path of Japan.

Secondly, from the standpoint of government debt, the Chinese government has a relatively low debt burden, and the infrastructure building is still huge, and the government has ample fiscal stimulus in the process of economic downturn. China should learn from Japan's experience and lessons, advance structural reform, accelerate industrial transformation, develop productive forces, strengthen basic research and open up technological fields belonging to China. In addition, while encouraging enterprises to innovate and enhance international competitiveness, the government should avoid excessive intervention in the market to achieve short-term economic benefits, and select the fittest with a long-term view.

Third, from the view of financial policy, the benchmark interest rate of China and the reserve requirement ratio of China are still relatively high, so that the government has plenty of room to loosen monetary policy during a recession. However, China's financial system is not perfect at present. China has to adjust itself to the development of the temporize, and enhance Chinese economic system in the world under the crisis of survival ability, it needs China always pay attention to the operation mode of the current international financial markets and its operating conditions, and grasp the dynamic trend of the international hot money and virtual capital, based on the information to make accurate analysis and forecast, in order to ensure the safety of China's financial system.

Fourth, from the point of the government's control of the economy, almost all of the important industries and key areas are controlled but the Chinese government. The Chinese government is much stronger than the Japanese government in the control of economy. The Chinese government has more confidence in preventing bubbles and crisis management than the Japanese government.

And for these reasons, I believe that China will not become the next Japan and there is a huge chance that China will overtake Japan not only in economy, but also in policy and other areas.

5. Summary

After the above analysis and comparison, China and Japan are different in many aspects, and their economic differences are caused by various factors. The similarities between the two countries are mainly: The growth of Japanese and Chinese economies, population, exchange rate, transformation of government-led industries, and asset bubbles. And the main differences are: the level of development, system, nature resource, debit, attitudes towards technology, and also enterprises.

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