

**Why China's Economy is Facing Huge Challenges
and How to Predict its Future**

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1.0 Why China's Economy is Facing Huge Challenges

As the world's largest manufacturer, 2nd largest economy, and 3rd largest consumer market, the current and future demand of China has huge implications to the global economy. However, before we can draw any conclusion about where its economy will be heading to in the future, we have to first understand the reasons behind China's economic miracle for the past few decades and why it became the world's largest manufacturing hub. In particular, it could be understood by examining the external and internal conditions of China along its history. Externally, China's participation in the WTO in the early 2000s allowed the country to access the world's biggest consumer markets such as the U.S. and Europe. Such access was followed by tremendous foreign investments from developed countries and along with advanced technologies that brought into the country. Internally, the local governments in China act similar to venture capitals and have greatly supported the businesses in China. Unlike most developed nations, the local governments in China are not constrained by the size of their investments since they are unconditionally supported by local banks, who are also backed up by the country's central bank. With the help of globalization and the unconditional support from the governments, banks, and other financial institutions, many Chinese companies were able to grow so fast and to obtain a predominant market share globally.

As shown in the following graph, prior to 2008, China's economy was expanding in a virtuous cycle: Companies who received support from the Chinese government and financial institutions also contributed to China's huge current account surplus. Since the government enforced these companies to exchange their foreign earnings to Chinese yuan, during the same period, the money supply within the economy greatly increased along with the country's foreign reserve, fostering more investments in exporting companies. These companies continued to generate more income for both the government and the private sector. This is why prior to 2008, China's economy maintained a double-digit growth momentum along with its increasing current account surplus. Note that such growth was also organic without the need to increase the overall debt level within the country, as during the same period, China's total social financing, a broad measure of credit and liquidity in the economy, maintained at a steady level at around 120% of its GDP.

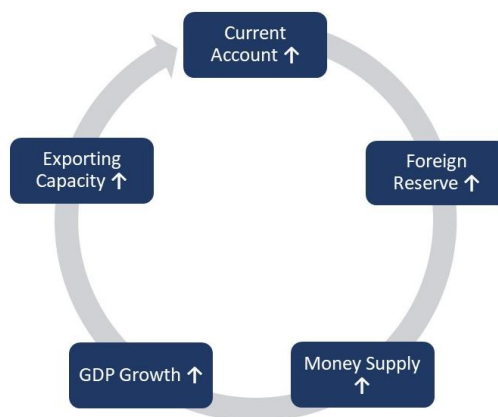


Figure 1: China's Self-Reinforcing Cycle Prior to 2008

The global financial crisis of 2008 represented a turning point for China's economy. As shown in the following graph, the country's export was greatly hurt by the global demand and there was an immediate economic contraction. However, instead of relying on the economy's self-correction process by allowing the less efficient companies to go bankrupt, the country largely increased its easing effort after the crisis. This can be shown in the spike of China's total social financing, which sharply increased from 120% of its GDP to 150% in less than one year following the 2008 financial crisis, and the effect of the increasing easing effort was immediate: during 2009, despite the country's current account surplus as share of GDP continued to shrink from 8.6% to 3.8%, the increased liquidity was able to boost the economy growth from 6.4% to 12.2%, which was comparable to its pre-crisis level.

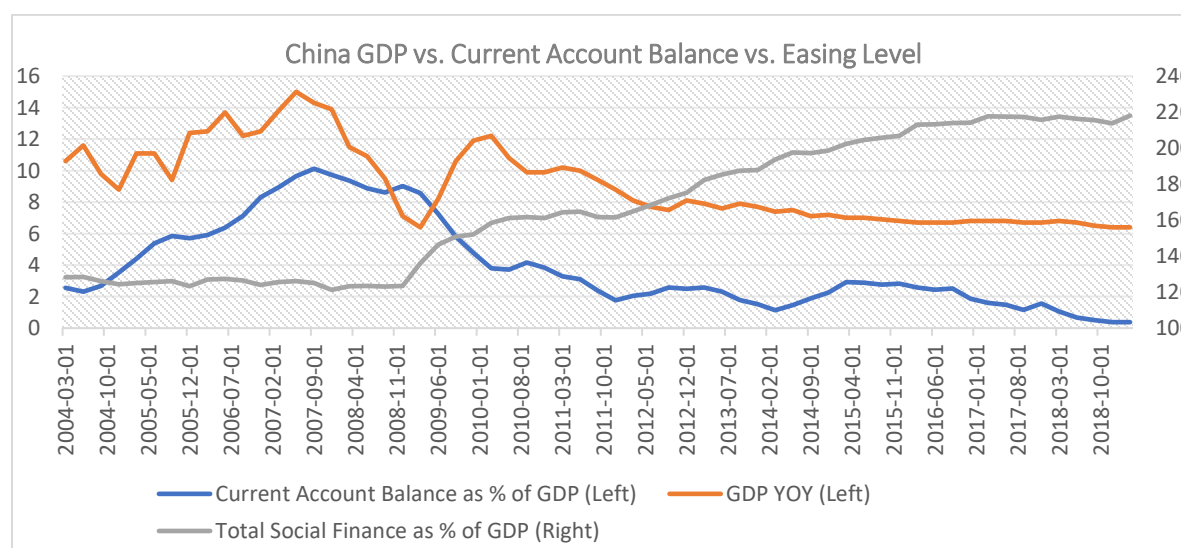


Figure 2: China GDP vs. Current Account Balance vs. Easing Level¹

¹ Source: Bloomberg

Any economy expansion based on excess amount of money supply is not sustainable, as easy access to liquidity would allow the less efficient companies to survive, leading to a great deterioration of the overall efficiency of the economy. As China tried to control the money supply from growing too fast in the following years from 2010 to 2011, its economy quickly turned around sharply as the GDP growth rate decreased from 12.2% to 8.8%. In order to avoid its GDP growth rate to continue to tumble, China has been injecting more and more liquidity to the market following 2011, but the results were completely different from the last easing period in 2009. Back in 2009, the economy immediately rebounded following the easing policies. However, from 2011 to 2019, although total social financing increased from 160% to 220% of the country's GDP, its GDP growth rate continued to decrease from 8.8% to 6.4%. This shows that the overall efficiency of the economy has been largely deteriorated ever since the financial crisis. At the same time, while the excess money supply boosted the country's demand for imports, its export was not able to expand at the same pace as its GDP. As a result, the country's current account balance as share of GDP decreased from 1.77% to 0.38% during 2011 to 2019.

From 2011 to today, China's economy has been more and more relied on government's easing efforts. Moreover, huge depreciation pressure has accumulated on its currency given the following three factors:

- 1) The continuous easing effort for the past decade
- 2) Shrinking current account surplus
- 3) China's non-market exchange rate system

This means that whether the Chinese government and the central bank will be able to continue to carry out the stimulus programs as they promised is highly dependent on how it can maintain its currency stability, which in turn has been relied on the effectiveness of the on-going capital controls. Given the current depreciation pressure on its currency, the most important factor that could maintain people's confidence in yuan is the country's foreign reserve balance. However, since the drastic decrease of the country's foreign reserve balance from 4 trillion to 3 trillion during 2014 to 2016, although the official number has been steady, the actual level remain unclear currently. In other words, if China's export conditions significantly deteriorate, it will likely be facing serious challenges to maintain the stability of its currency, leaving the government with three possible choices to react:

- 1) If the government chooses to alleviate the pressure on the currency by letting it to greatly depreciate, it will likely create chaos for its domestic economy and result in significant foreign capital outflow. Moreover, its major trading partners will likely see the depreciation as an act of currency manipulation, therefore creating more trade barriers for China to export its products

2) If the government chooses to maintain its exchange rate by using contractionary fiscal and monetary policies, it would have a disastrous effect on its economy as it has been much relied on the easing efforts

3) If the government chooses to maintain its exchange rate by tightening its controls on capital outflows, the country will suffer from significant outflows of foreign capital. Moreover, since China's export ability is heavily relied on imports of raw materials, semi-finished products, and production equipments, these policies will create obstacles for companies to import these products, therefore drastically hurting the country's exports.

Note that no matter under which scenario, China's economy would be hard to avoid a "free fall".

Therefore, understanding China's export conditions is key to predict the future direction of its economy.

Unfortunately, given that the official economic data from China is unreliable and is often subject to manipulation, the next part of the report will discuss in details how to predict China's economy by looking at more reliable indicators to reflect its export conditions.

2.0 How to Better Indicate and Predict China's Export Conditions

Firstly, in order to have a better understanding of China's current export conditions, one has to be aware of Hong Kong's role as the logistics hub for China and the fact that manufacturing sector only takes up 1.3% of Hong Kong's GDP (Trade and Industry Department of Hong Kong, 2016). Therefore, trading statistics of China should be adjusted by treating China and Hong Kong as one entity instead of two separate regions.

Moreover, it is important to understand China's position in the global value chain in the manufacturing industry. As demonstrated in the following figure, China is at the lower stream in the industry value chain as most of its production involves final assembly and finished consumer goods. As of today, China's main exporting products include machine and electronics, which takes up 43% of its total export value, and textiles, which takes up another 15% (World Integrated Trade Solution). In order to support its exports, China relies heavily on the imports of machines and raw materials from Japan and Germany (referred to as "upper stream economies") as well as the electronic components from Korea and Taiwan (referred to as "middle stream economies"). Therefore, the most direct way to predict China's future export is to look at whether factories in China are expanding their manufacturing capacity by placing new orders for equipment and production materials from Japan, Germany, Taiwan and Korea. These activities can be best reflected in these countries' export figures to China.

Note that China is also one of the largest consumer markets and a big proportion of its imports can be consumed domestically. When looking at the export data from these countries, it is also important to exclude the types of products that are mainly used for China's domestic demand. In particular, given that vehicles only take up a small share of China's total export values, it is safe to assume that the China's

imports of transportation equipment and the related parts should not be considered as a signal of improved export conditions other than its expanded domestic demand.

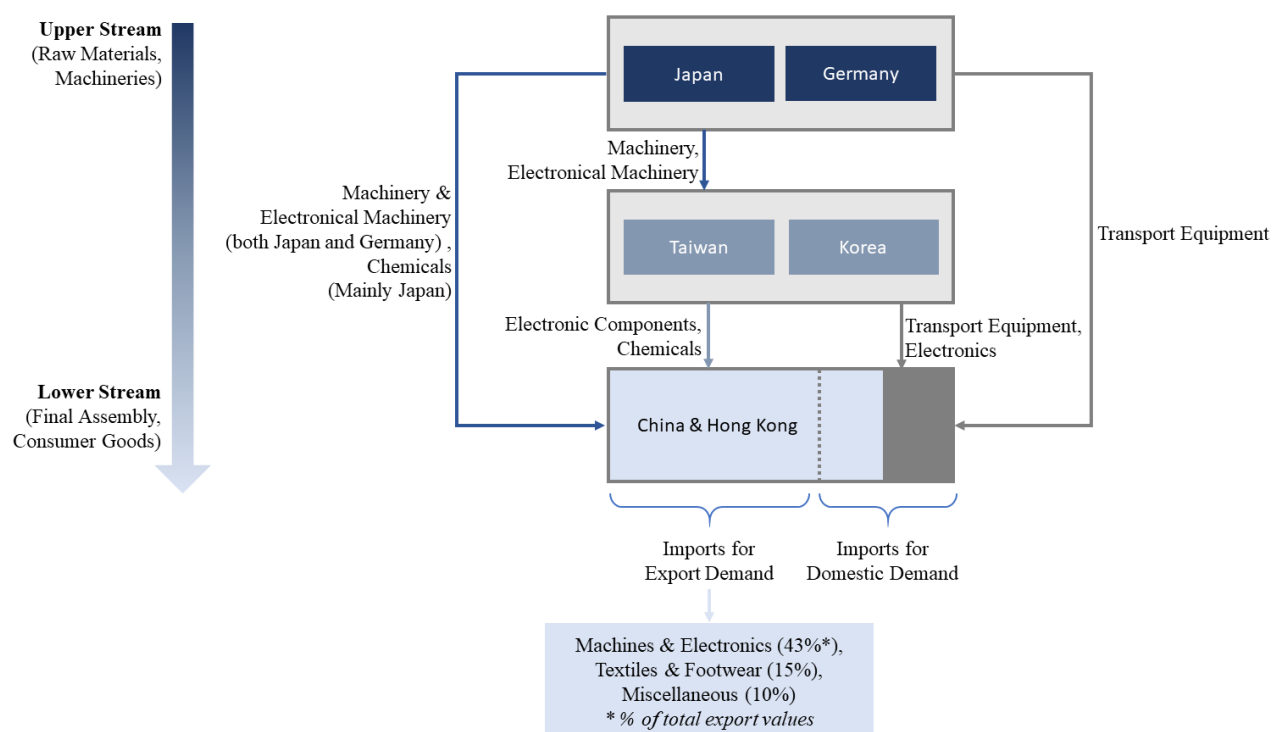


Figure 3: Manufacturing Global Value Chain²

Noises in the data are usually unavoidable, but based on each country's position in the global industry value chain mentioned earlier, the trade statistics from different countries can often be used to verify each other in order to determine which are more reliable and which are more likely to be noise. For example, given the fact the middle stream economies such as Korea and Taiwan also rely on imports of machines and raw materials from the upper stream economies, when there is an increase in factory orders from Chinese buyers, Korea and Taiwan's export readings to China should increase along with Japan and Germany's total exports to China.

Moreover, it is important to note that even import categories that are highly associated with the country's domestic demand can be initially excluded, still, these imports can be both used for China's export production and consumed domestically. As the aggregate amount of social financing in the country can be a good early indicator of China's domestic demand, the export statistics from these countries can be further adjusted using the current level of social financing data. For instance, when there is a significant increase in social financing, the country's future domestic demand will likely increase correspondingly,

² China Exports Data Source: WITS

and as a result, the portion of its imports that are used for export production from the upper and middle stream economies will likely become smaller.

3.0 Related Investment Opportunities

China's future demand has a substantial impact on global economy, and this implies a wealth of opportunities for investors who are able to understand and predict the export conditions of China. In order to better identify these opportunities, the following figure is an expanded version of the global manufacturing industry value chain mentioned in the previous section, and it better demonstrates China's position as well as other major economies that will be the most affected given the structural changes in China's future economic conditions.

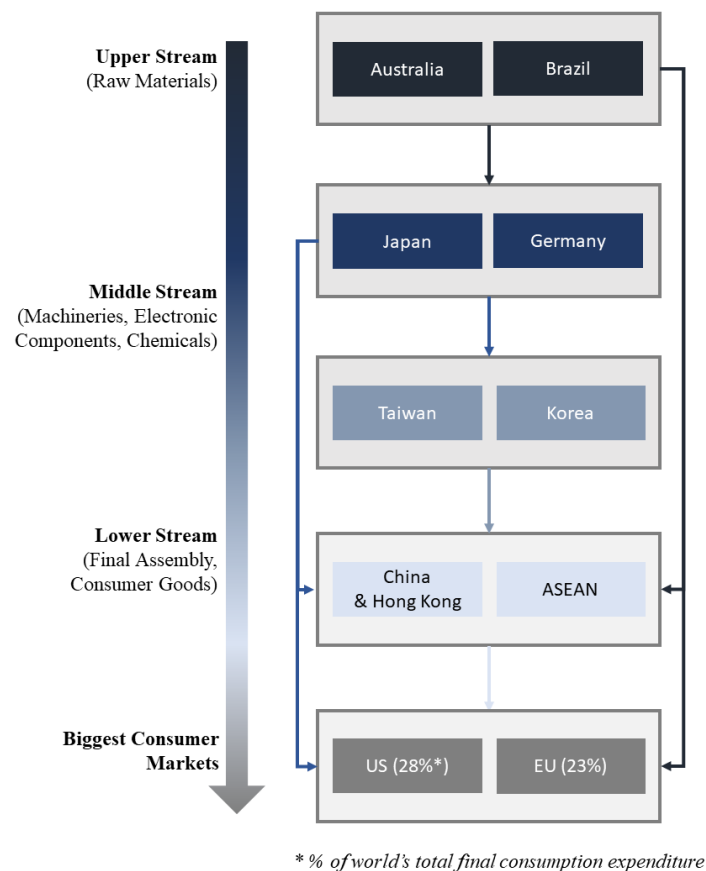


Figure 4: Manufacturing Global Value Chain Extended³

³ Consumption Expenditure Data Source: World Bank

As shown in the following graph, China's economy as of today is going through a vicious cycle: due to global demand slowdown, China is facing huge deterioration in its export condition, and the “upper stream” and “middle stream” economies have been heavily impacted since its imports used for export production such as raw materials, semi-finished products and production equipment drastically slowed down. Moreover, in order to maintain the country's current account surplus, the government has intentionally put on more constraints on its imports related to its domestic demand. As a result, the reduced imports would drive up the country's inflation, further increasing its production cost and affecting China's ability to export. Note that the reduced export will not only further constrain China's import ability and drive up inflation, it will also reduce the overall supply and drive up inflation in its biggest consumer markets such as the U.S. and EU. Since the US economy is mostly driven by its domestic consumption, which is highly sensitive to income growth and interest rates, the impact of China's economic slowdown will likely have substantial influence on the U.S. economy if the reduced supply significantly drives the increase of good prices and forces the Fed to follow up with higher interest rates. However, before all these happen, the very first countries that will be impacted by China's slowdown are the “upper stream” and “middle stream” countries in the graph who share a substantial exposure to China in their exports. As the most straight-forward way to capture these opportunities is through these economies' currency performance, some of these currencies are listed below:



Figure 5: China's Self-reinforcing Cycle after 2008

AUD & BRL

Comparing to other major imports of China such as agriculture products and petroleum, imports of iron ore of the country is most subject to significant cut in the event of “China slowdown”. As shown in the following figure, the sensitivity of Australian dollar and Brazilian real to China’s economy is self-evident given the substantial proportion of the countries’ export to China as a share of their total export value (World Bank Open Data).

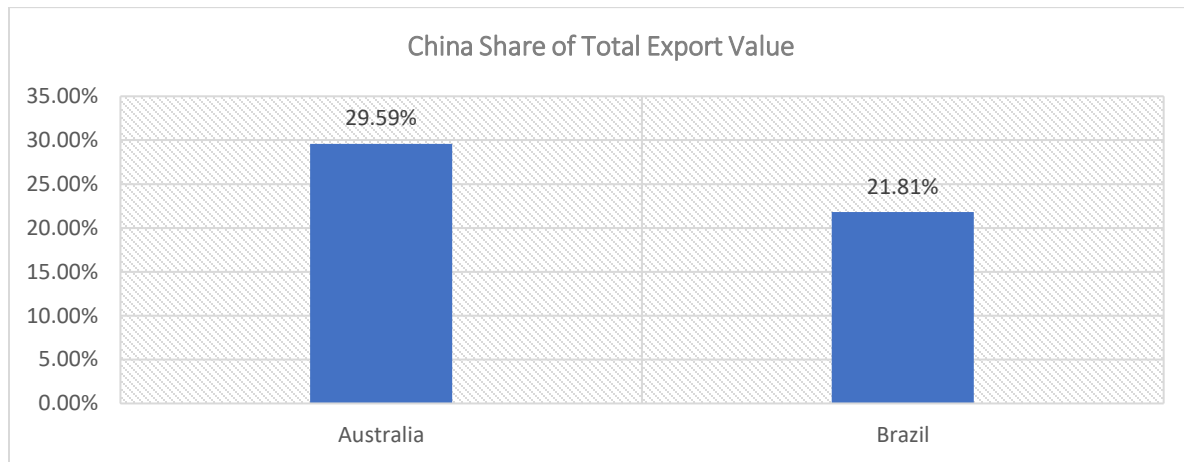


Figure 6: China Share of Export (Australia and Brazil)⁴

SGD

Logistics and financial services play a critical role in Singapore’s economy (Singapore Statistics Department, 2018). Not only the sea transportation business in Singapore has been heavily relied on China’s export conditions, the substantial risk exposure of Singapore’s financial services to China can be considered an even bigger vulnerability for the country. Especially in the event of a “hard landing” of the Chinese economy, the financial sector in Singapore could be greatly hit by serious amount of defaults from its Chinese borrowers.

⁴ (World Integrated Trade Solution)

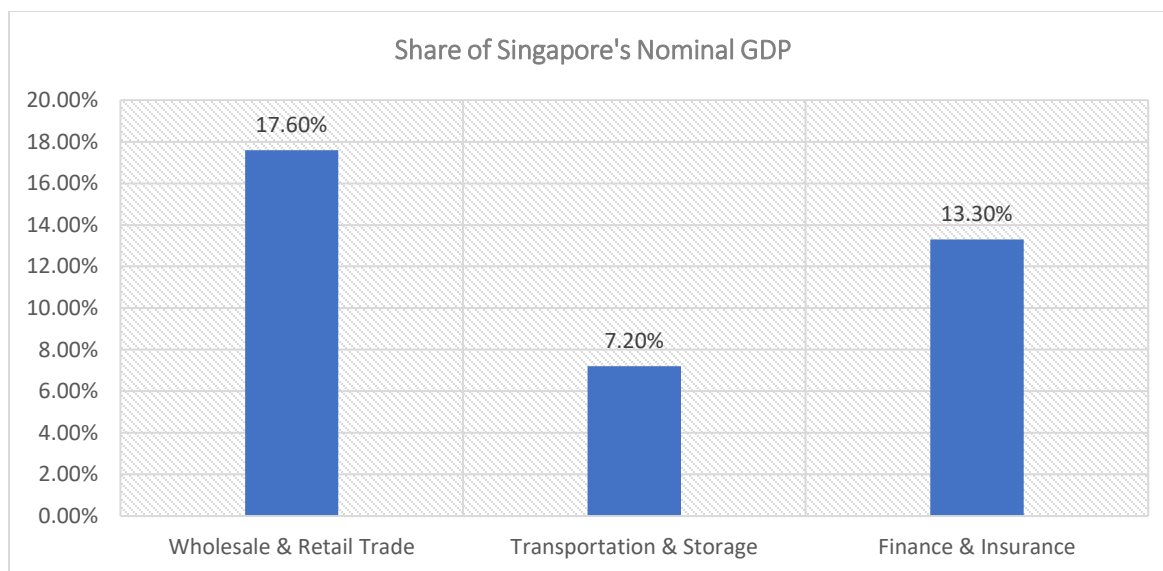


Figure 7: Share of Singapore's GDP (Selected Industries)⁵

4.0 Conclusion

For both the periods before and after 2008, China's economy has been in self-reinforcing cycles: prior to 2008, China followed a virtuous cycle where its economy grew along with its fast expanding current account surplus. Whereas after 2008, China's economy has been following a vicious cycle, and as a result, huge depreciation pressure has been accumulated for its currency as country's current account surplus shrunk as a share of GDP. Especially when China's inflation significantly picks up (As of today, this is already happening to food prices with fresh fruit prices jumped nearly 40% and pork prices rose 27% YoY in July 2019) (Tan, 2019), the country's export ability will keep worsening, and the "upper stream" and "middle stream" economies would continue to suffer from the deterioration of China's export conditions. As mentioned earlier, China's slowdown at current stage should not directly impact the U.S. economy. However, when the country's economy condition is eventually worsened to the point that the Chinese government has to take one of the three actions to eliminate the depreciation pressure on its currency, there will be a "free fall" in China's export production. This will in turn significantly inflate the prices for consumer goods in the U.S. and by that time, higher interest rates will likely lead to a recession in the country.

⁵ (Singapore Statistics Department, 2018)

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