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The Influence of Economic Integration on Australian-China Trade

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Abstract: *The composition and magnitude of trade among countries are affected by comparative advantage, stage of development, degree of economic integration, exchange rate policy and other factors. This paper reviews the changes in the scale and structure of imports and exports between China and Australia in the past three decades. It explains the composition of trade between the two countries from the theory of comparative advantage and discusses the important role of the deepening of economic integration on the trade volume. Finally, with the stage of China's economic development and the impact of trade policy on Australia-China trade, it is pointed out that the exchange rate policy has reduced China's terms of trade. On the contrary, Australia 's terms of trade are conducive to the Australian economy.*

Keywords: *Australian-China trade, Comparative advantage, Economic integration, Terms of trade*

1. Introduction

Trade cooperation between China and Australia has been heating up over the past 20 years. With the rise of emerging economies, including China, the demand for mineral resources has increased. The value of Australia mineral produces exports to China has increased significantly, as well as the structure and scale of trade between China and Australia have also changed. Trade is getting closer as Asian countries sign free trade agreements. In addition, China has entered a new stage of development. The Chinese government began to focus on carbon emissions, sought sustainable development, and closed highly polluting factories. The demand for energy and minerals has decreased. The composition and magnitude of trade among countries are affected by relative advantage, stage of development, trade policy, exchange rate policy and other factors. All these affect the trade between China and Australia.

2. The Changes in Trade Patterns Between China and Australia

According to the theory of comparative advantage, countries will export commodities and services produced with relatively abundant resources, while imported commodities and services need relatively scarce resources to produce(Robert, 1815[14]; David,1817[10]). Australia has abundant natural resources, especially mineral resources, while China is rich in labour resources and has a comparative advantage in labour-intensive industries. Indeed, Australia has relied on its unique factor endowment and comparative advantage to achieve great success, performing particularly well in certain historical periods(*McLean 2013[8]*). Because of Australia rich ore resources and natural geographical and transportation advantages with, China has a long-term high demand for Australian iron ore. The serious 'bias' of the import and export structure makes Australia's exports dependent on China's demand for mineral resources heavily. This unbalanced import and export structure is a hazard. While diversification has also been a theme in Australia's economic history, it has remained resource-dependent and rich to this day(*Alan, 2016[1]*).

Over the past 25 years, Australia's exports to China have shifted from light industrial products dominated by textiles to minerals products, primary raw materials. According to *Figure 1*, before 2000, the exports to China were mainly concentrated in textiles, accounting for about 30 - 40% of the total exports. The export share of other products is evenly distributed and there is no serious tilt. After a turning point in 2000, minerals products dominated the export market. The share of minerals products accounts for about 70 per cent of total exports by 2017. The sum shares of chemicals products, textiles, metals and chemical products shrank from about 70 per cent in 1995 to less than 30 per cent in 2017. The export share of other products has also been further compressed.

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The change in the share of Australian exports to China is determined by the surge in iron ore exports, rather than by the decline in the total exports of chemical products and textiles. As shown (*Figure 2*), the export value has experienced about 20 times increase, from less than $5 billion in 2000 to a peak of $95 billion in 2013. The export volume growth of mineral resources is the most significant. The export value of other products, except gold, has not changed significantly.

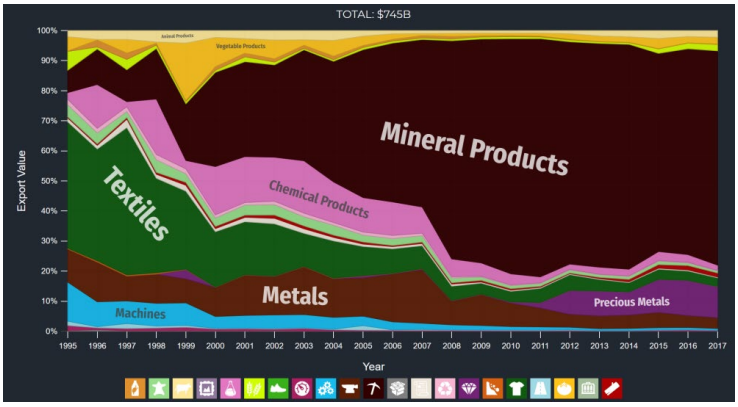

Figure 1: What does Australia export to China? (1995-2017, show by share)

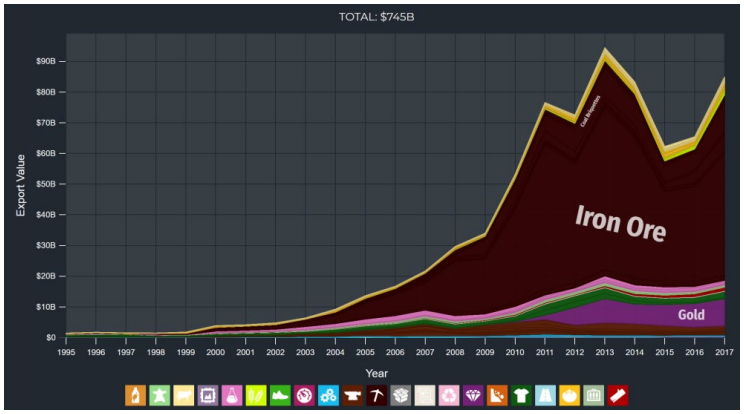

Figure 2: What does Australia export to China? (1995-2017, show by value)

(Source: The Observatory of Economic Complexity, 2020[13])

The variety and share of Australian imports from China have changed relatively little. Compared with developing countries (China), the demand of Australia various industries tends to be stable. The fluctuation in import is relatively small. The above *Figure 3* shows that the main shift is in the import of textiles and machines, while the share of other import commodities remains stable. From 1995 to 2017, the share of machine imports doubled (from about 15% to 30% of total imports from China), and the share of textile imports shows a downward trend (from about 30% to 15%). The vital factor is the rise in the total value of machine imports (*Figure 4*). From around 2002, the total value of machine imports continued to rise. It showed a trend of rapid growth from 2009 to 2011 and stabilized after a slight decline.

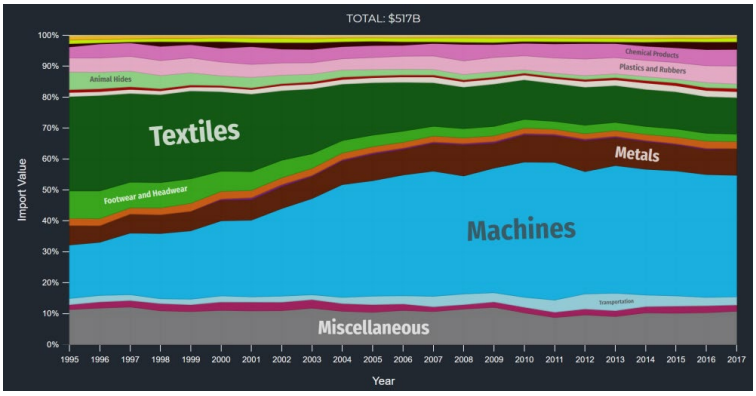

Figure 3 : What does Australia import from China ? (1995-2017, show by share)

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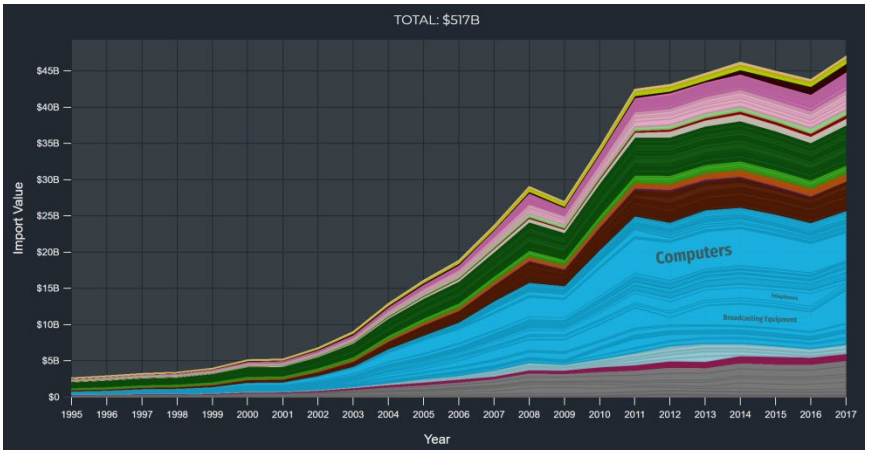

Figure 4: What does Australia import from China ? (1995-2017, show by value)

(Source: The Observatory of Economic Complexity, 2020[13])

3. The Economic Integration

The signing of free trade agreements is a catalyst for trade relations. The trade cooperation between China and Australia is getting closer and closer. These two economies have become more integrated with each other. The total volume of trade between China and Australia has risen considerably over the past 20 years. As the figures have shown, whether it is import or export, China is one of Australia's most important trading partners (*Figure 5 and Figure 6*).

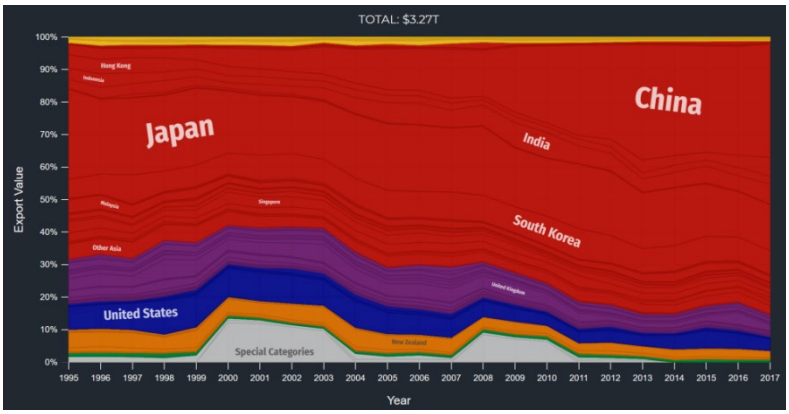

Figure 5: Where dose Australia export to? (1995-2017, show by share)

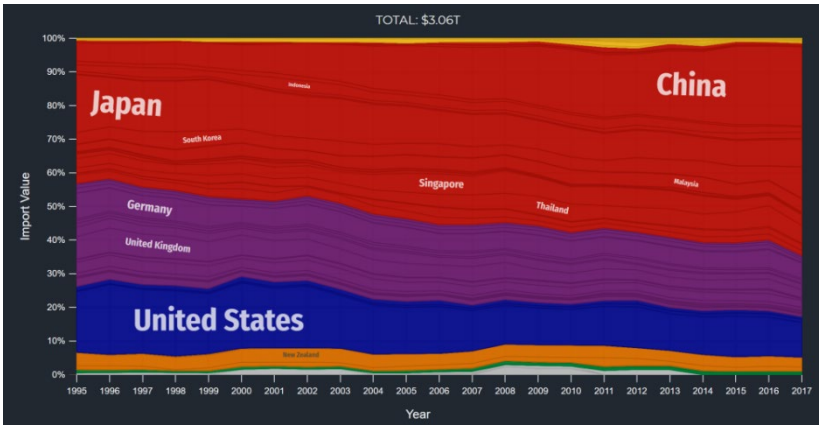

Figure 6: Where does Australia import from? (1995-2017, show by share)(Source: The Observatory of Economic Complexity, 2020[13])

The surge in iron ore exports contributes to the increase in Australia-China export volume. The process of industrialization and urbanization in China increases the demand for iron ore. The high

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demand has promoted trade between China and Australia. Xiang (*2010*[16]) states that iron ore is an essential mineral resource with outstanding resource constraints in China, and its dependence on imports reached 62% in 2009. This degree of dependence increases continuously and steadily with the deepening of the process of industrialization. Australia, which is rich in mineral resources and has geographical location and transportation advantages, has become an ideal partner. However, instead of giving China a bargaining advantage, 'Chinese demand' is the rising price of imported minerals (*Xiang, 2010*[16]). This makes the growth of Australia-China export volume, not only from the increase in demand, but also largely from the price increase. The central position of mineral resources in the industrial system, coupled with the non-renewable and spatial distribution, is of vital importance to the economy of all countries. This also gives countries with mineral resources a stronger bargaining power. Australia, as a supplier, benefits from export and promotes its own economic growth. Other importing countries, including China, need to pay high costs in exchange for industrialization. Resource-demanding countries tend to seek more suitable partners from a cost-saving point of view.

Economic integration is mainly reflected in the reduction or even elimination of trade barriers among member nations (*Villalta,2012*[15]). It aims to promote trade and reduce costs for producers and consumers. Australia-China exports fell sharply between 2013 and 2015 (*Figure 2*). The possible reason for the decline is that regional economic integration could squeeze trade between non-member countries. At that time, free trade agreements were established among Asian countries and low-cost trade networks were established. Compared with trading with Australia, Asian countries may have geographical advantages and lower transportation costs. With policy facilities such as free trade agreements, China is likely to shift import orders from Australia to the rest of Asia. Free trade agreements established among Asian countries pose challenges to Australian business (*Laurie, 2010*[6]). The decline in Australian-China exports between 2013 and 2015 may prove the necessity of signing a free trade agreement with China. The Free Trade Agreement (FTA) is also an important part of Australia's sustained economic growth (*Australia government, 2020*[2]). The signing of the China-Australia Free Trade Agreement (ChAFTA) in 2015 promoted regional economic integration and established a shared approach to trade and investment between Australia and China. ChAFTA provides Australia more competitive. For example, almost all of Australia's resources and energy exports, such as Iron ore, gold and natural gas will enter China duty-free. However, economic integration is not achieved overnight. This gradual process will take about years from the signing of the agreement to the full implementation. The deepening of economic integration between Australia and the European Union also requires further negotiations over a long period of time (*Villalta,2012*[15]).

4. Terms of trade

Terms of trade (TOT) defines the relative prices of the export and import products for a country. It is defined that the base year is 2000. China's terms of trade float steadily around 90 from 2000 to 2018, while Australia's terms of trade fluctuate considerably, ranging about 105 to 200, although it has been above 100 (*Figure 7*). A high ratio means that Australia can sell its products and services at high prices and buy goods cheaply from overseas, which means improved social welfare. This corresponds to Australia's economic growth trend, the rate of change in real GDP (*Figure 8*). On the contrary, China's index is below 100 (*Figure 7*), reflecting its inferior position in the trade. As discussed above, the large amount of China's demand results in an increase in prices rather than the improvement of bargaining power.

There are several reasons for the formation of these trends. First, exchange rate policy depresses China's terms of trade. The Chinese government maintains a fixed exchange rate policy against the US dollar. Some analysts believe that China's exchange rate does not reflect the actual value of the Chinese yuan (*Emir, 2017*[4]). China's economic growth depends on exports. The weak Chinese yuan makes exports more price competitive, but the undervalued Chinese yuan has a negative contribution to the terms of trade. Nezu (*2011*[9]) objects that the impact of exchange rate fluctuations on the terms of trade is weak. Second, for a sharp improvement of Australia's terms of trade between 2000 and 2010, the two drivers are Australia's dominant position in the energy export industry and the sharp rise in the prices of these commodities. The innovation of mining technology and the improvement of road transport conditions have increased the export supply (*Australia government, 2020*[2]). Nevertheless, the Australian economy was hit by the decline that began in 2013. China has paid attention to carbon emissions in recent years. Thus, the government carried out industrial reforms and shut down a large number of heavily polluting iron and steel factories (*Guo, Zhang & Zhang, 2018*[5]). Falling Chinese demand and rising global supplies have led to falling prices for commodities, such as iron ore (*Letts, 2016*[7]). This hits Australia's export prices index. As Australia's main export, iron ore has a significant

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impact on the Australian economy. The decline in demand for these critical resources, which have continued for three years, explains the downward trend in Australia's terms of trade from 2012 to 2016.

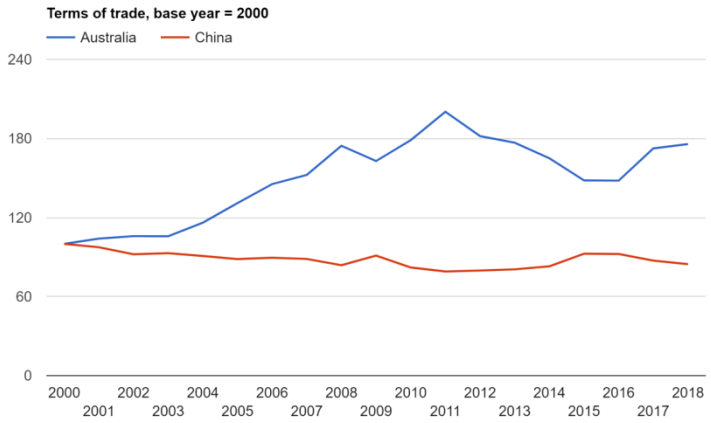

Figure 7: Terms of trade

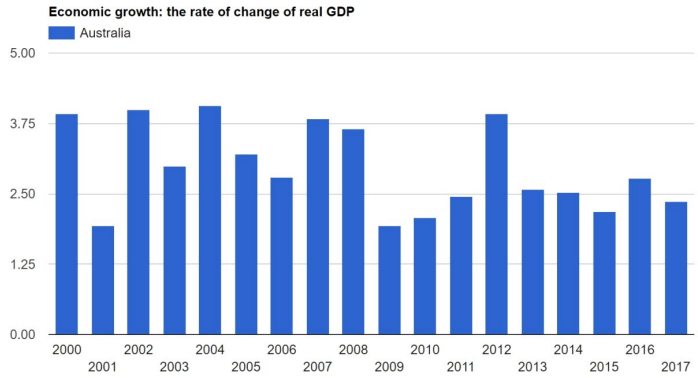

Figure 8: The rate of change of real GDP(Source: The Global Economy.com, The World Bank[12])

5. Conclusion

Overall, the trade relationship between China and Australia is influenced by comparative advantages and the change in China's economic development policies. On the one hand, with the acceleration of urbanization and industrialization in China, there is a great demand for more imports. It has pushed up international ore prices, benefiting Australia as an exporter. However, in following years, China has put forward supply reforms, focused on energy conservation, emission reduction and sustainable development, and shut down a large number of heavily polluting iron and steel plants. In addition, with the deepening of cooperation with other trading partners, it is foreseeable that China's demand for raw materials and minerals will decline. From these points of view, the Australian-China trade relation is unlikely to progress by leaps and bounds.

On the other hand, Australian-China trade should not continue to experience major setbacks similar to those in 2014 and 2015. First, the signing of the Free Trade Agreement in 2015 promoted economic integration, and second, the trade war between China and the United States would make China turn to seek the development of trade relations outside the United States (*Chen & Cheng, 2019[3]*). Therefore, the potential trend of Australian-China trade in the next few years is to rise gradually based on 2016 trade volume.

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