

# **The Study of the Impact of the Appreciation of Chinese Yuan on the Employment of Chinese Manufacturing Sector**

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## **Abstract**

The increasingly appreciated domestic currency has put pressure on the job market, especially in the manufacturing sector. China's manufacturing industries, dwelling at the low-end of the global industrial chain, occupied the majority share of exports and also played an important role in absorbing human resources. This paper firstly describes the current status of the manufacturing sector and then explains the transmission mechanism of exchange rate on manufacturing employment and obtains the effect of the appreciated RMB on the employment of manufacturing sector through these theoretical study, analyzing the factors that play a role in the process of a stronger RMB affecting the employment of manufacturing and putting forward corresponding countermeasures and suggestions according to these related factors. There are three main factors in the transmission of impact of exchange rate on employment: international trade and domestic consumption and capital inflows. Acquiring a thorough understanding of the short-term and long-term effects of the appreciation of Chinese currencies on the employment of manufacturing industry, which provide an important reference to the establishment of the Managed Floating Exchange Rate Regime and the development of the manufacturing industries.

## **Keywords**

The appreciation of RMB, the manufacturing Sector, theoretical study.

## **1. The Transmission Mechanism of Employment of Manufacturing Sector**

### **1.1. The Economic Role of Manufacturing Industry in China's Economy**

The manufacturing industry is the core of the national economy and an important pillar of the national economy, and is relative open to other industries. Chinese stick to believe that the export is one of the key factors of boosting economic growth and most exports are closely related to the manufacturing industry. The development of manufacturing industry is an important engine to promote China's Economic Leap-forward Development. The value of manufacturing added ceaselessly in recent decades and increased by several time of its original value and also accounted for a large proportion of the yield of the total industries. The table below illustrated the detailed proportion of value-added for each industry occupied respectively.

There are few definitions need to be figured out. The first industry referred directly making use of natural resources such as the agriculture and the second industry involved manufacturing the finished goods such as manufacturing sector whereas the tertiary industry produces services instead of end goods. From the table above, we can see the manufacturing occupied an significant part in the national income, and then the manufacturing sector is closely associated to the national economy and plays an important role in attaining employment. The manufacturing developed rapidly and occupied a lot share in the international trade recently. The majority industries in china are labour-intensive and those industries are mainly responsible for attain the employment. As one of important part of labour-intensive industries,

the ability of manufacturing industry to obtain employment has been strengthened with its rapid development. Manufacturing sector enjoyed high openness among industries and had relative advantage in attracting labour when compared with the second and the tertiary industries.

The proportion of the value added of industries(%)

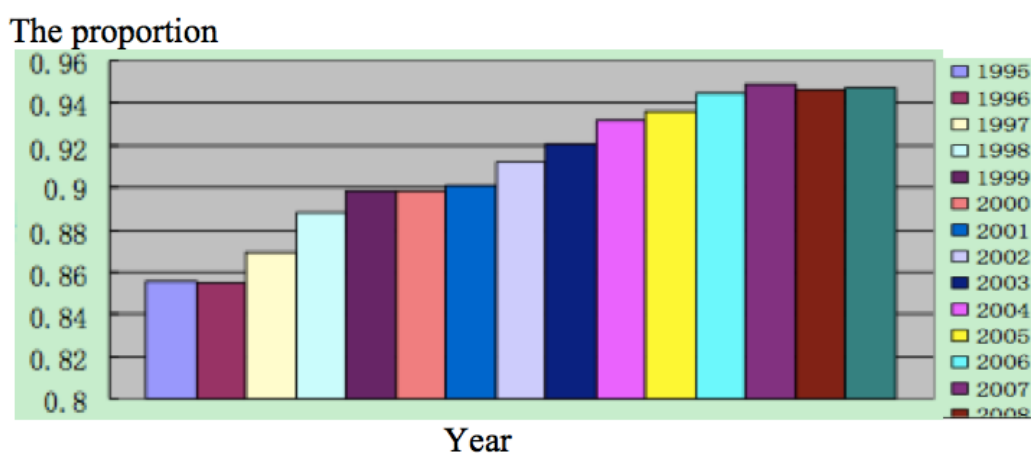
The proportion of manufacturing in national income (%)	32.58	32.92	32.91	32.65
Proportion of manufacturing sector in the second industry (%)	68.63	68.66	69.51	68.82
the proportion of the first industry in national income (%)	12.12	11.11	10.77	10.73
the proportion of the tertiary industry in national income (%)	40.51	40.94	41.89	41.82

Source: National Bureau Statistics of China

## 1.2. The Relationship Between the Movement of Exchange Rate and Export-oriented Manufacturing Industry

Most of export-oriented enterprises in China play an important role in the foreign trade, and hence greatly influenced by the exchange rate movements. However, A slowdown in the continuously rising proportion of manufacturing goods in the total exports has been found for the recent years. The details are described as follow:

The proportion of the manufacturing sector in the China's total exports



The industries that can profit from the trade because of the appreciated RMB are those whose main raw materials or auxiliary parts are imported from abroad. For instance, the industries of papermaking, steel, car, Petroleum and Petrochemical, chemical fiber and plastics have enhanced their profitability because a stronger RMB reduced the cost of importing the main materials for these industries. However, most of the industries that suffered from the

devaluation of RMB are mainly concentrated among industries that have a large share in the export market. The appreciation of RMB will place pressure on the development of traditional industries like the textiles and garments Industry, the home electrical appliance industries and the machinery industries that enjoyed the advantage in the foreign trade market. This is because a stronger RMB increased the cost of these industries and their profits reduced to some extent accordingly; Meanwhile, the industries that pricing their products in the international market like non-ferrous, steel and electronic units manufacturing industries will also suffer a gloomy prospect. The reason is that the selling price calculated with RMB has been decreased as the depreciated RMB and hence the profits have been influenced negatively.

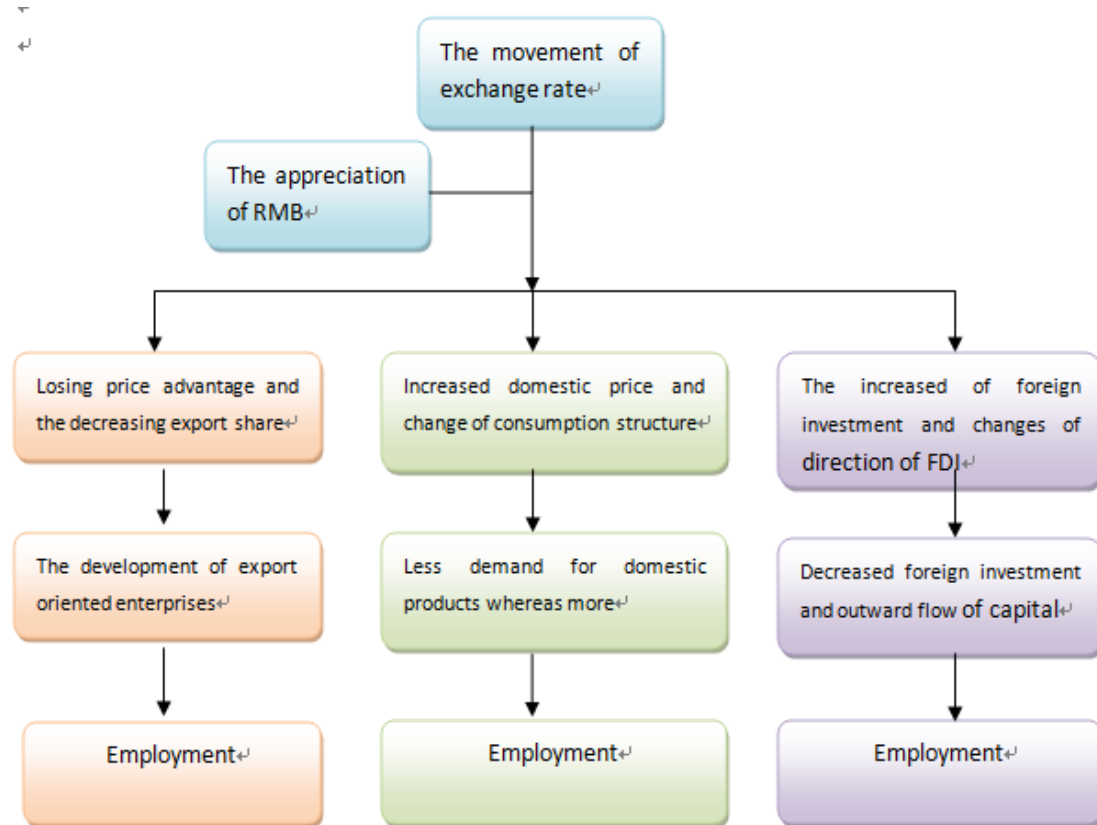
Interest rate plays a fundamental role in the international trade. If the Goods of a country whose costs are calculated in its domestic currency are exchanged in the world market, then its costs are closely related to the movement of exchange rate. The movement of exchange rate places a direct influence on the cost and selling price of the commodities and consequently affects their international competitiveness.

In general, the appreciated currency is in favor of imports and not conducive to export. A stronger RMB would increase the selling price of China's traditional manufacturing products such as the textile manufacturing commodities and lose their competitive edge. Meanwhile, a flood of imports will enter into Chinese market and has great adverse impacts on the manufacturing sector. There is a negative relationship between the appreciation of RMB and the export growth of manufacturing sector.

The devaluated RMB indicate that the foreign trade industries would gradually lose their advantage of low cost and their competitiveness would be affected as well. Besides, a stronger make the price of imports relatively cheaper and it will be much easier for the high-end industries abroad and its goods to enter the Chinese domestic market. These multinational firms would probably occupy the industries of high-end and the product market and make the domestic enterprises suffer the hidden difficulties when improving the industrial pattern and product mix. (Burgess, S and Knetter, M. 1987) The traditional enterprises enjoy the advantage of low cost of labor-intensive manufacturing products and mainly distributed among the industrial chain of low-end industries and rarely get involved in the high-end industries. However, the industries in western countries mainly concentrated in the high-end industries and occupy large share in the market of high-end products. The appreciated RMB might reduced the competitiveness of Chinese traditional industries and in favor of the penetration of foreign industry, which would adversely affect the process of improving the industrial pattern and product mix of domestic industries and entering the high-end industries and product market. (Zhou,S. 2012)

## **2. The Transmission Mechanism of Exchange Rate on Employment**

The appreciation of the RMB exchange rate affected employment especially of the manufacturing industry mainly through the following three channels: 1, the channel through foreign trade; 2, the channel through the increased price level and consumption; 3, the channel through capital flow.



Source from: Author's diagram

## 2.1. The Channel through International Trade (Corresponding with the Pink Part in the Diagram Above)

The movement of exchange will affect the imports and exports significantly. The appreciation of RMB will stimulates imports whereas discourage export. The appreciation of Yuan is a sign of losing price advantage of Chinese exports and decreased market share of exports in the international trade especially in the manufacturing sector, a typical labour-intensive industry. Consequently, the producer will produce less to respond such effect, which will reduce the demand of labour. On the other hand, the increased import substitutes will place a gloomy future on the prospective of the domestic industries and its similar alternative industries and pressure on the job market domestically. In other words, it transfers the unemployment pressure abroad to the domestic labour market and results in a negative effect on employment. The increased imports and decreased exports lead to some negative effects on the Chinese domestic employment as follows:

- (1) For Chinese labour-intensive industries relying heavily on the international trade market, the trade - surplus contraction will lead almost directly to reduced production and higher unemployment.
- (2) If there is a sudden influx of imports and its strong brand effect plays a significant role in the replacement of similar domestic products. In the process of consuming imports, we add additional pressure on the employment and transferred the issue of unemployment from abroad through international trade.
- (3) The appreciation of RMB reduces the cost of introducing foreign intelligence and strengthens the purchasing power of enterprises to introduce high technology abroad. However, the technological progress will result in the structural unemployment. Generally speaking, technological annotation will make a difference to the composition of labour demand,

increasing the demand for more skilled artisans like the computer programmer and reducing the demand for other types of labour like unskilled workers. Structural unemployment referred to those who were laid off because of technological progress that decrease the labour demand for that category. The unskilled workers consist of Chinese labour market massively, especially in the labour-intensive industries like manufacturing factor. Consequently, the previous unskilled labour will lose their jobs from both domestic and market abroad as a result of Chinese currency appreciation. (Chua and Sharma 1998)

## **2.2. The Channel through the Increased Price Level and Consumption (Corresponding with the Green Part in the Diagram Above)**

The appreciation of RMB increased the purchasing power of Chinese customers and the relatively cheaper imports may alter their consumption value and pattern. They will choose consume directly overseas or give priority to imports rather than domestic products, which will definitely lead to an unfavourable future of the domestic enterprises. (Chua, S and Sharma, S, 1998) Besides, the appreciation of Yuan will influence the consumption overseas by discouraging the consumption of exports in foreign countries for its increased price. This make them back to consume their own domestic products, or towards alternative countries that also provide the relative price advantages. All of these factors would undermine the positive effects such as industry expansion and new employment opportunities that generated by the foreign consumption. The details are explained as below.

(1) The imported products enjoyed absolute advantage both in the brand reputation and the service quality after sales when compared with the domestic products. The appreciation of Yuan diminished the price advantage of domestic products whereas strengthened the effect of substitution of imports, which made the domestic products suffered bilateral market share both domestic and abroad.

(2) The appreciation of RMB directly increased the consuming ability of Chinese customers and changed the consumption structure as well. With the increased purchasing power, consumers whose consumption choices were constrained by spending budget and now were capable of changing their consumption appetite and taste (Goldberg L, and Tracy J, 2001). According to Wei Li, macro-economic analyst of Standard Chartered Bank, that there is a downward trend of the domestic purchasing power measured in Chinese currency over the last two years when compared with western countries. The coexistence of external appreciation and internal depreciation (the Chinese domestic inflation) of RMB encourage the Chinese go abroad to shop, which plays an equivalent role as the increased domestic consumption in reducing the demand for labour domestically.

(3) RMB appreciation also reversed market selection of foreign consumer and made them return to their home market, or choose alternative countries with comparative advantages. Besides, the appreciated RMB increases the expenses of coming china for tourism and decreases the inbound consumption in Chinese domestic market. The reduced consumption of foreign consumers both abroad and domestically makes a joint effect to the decreased demand of labour in China. (Bela, B, 1964)

## **2.3. The Channel through Capital Flow (Corresponded with Purple Part in the Diagram Above)**

The responsiveness of the foreign capital to the changes of exchange rate is quite sensitive .The movement of exchange rate would affect the cost of foreign investment and redistrict the expansion of enterprises, and hence reduce their ability to absorb the labour force. Besides, it is not conducive to the development of joint venture and resolving the issue of unemployment. Without the injection of capital, the development of manufacturing sector will suffered an unfavourable prospect. Meanwhile, the appreciation would cause capital flow outward and



adversely increase the capability of absorbing the labour of foreign firms and increased their competitive advantage, which equivalently make the domestic enterprise suffered. (Li, X, and Qian, L. 2010)

(1) The appreciation of the Yuan would weaken the ability of foreign funded enterprises to absorb labour and reduced their expected return. Because of the flooding of imports and the loss of price advantage of domestic goods the sales of the products produced by FFES (foreign funded enterprises) faced increasingly severe competitive at home and abroad. Besides, the outflow of capital to other countries will decrease the existing number of FFES (foreign funded enterprises) and reduce the total occupants available.

(2) The revaluation of the RMB also caused the shrink of foreign exchange assets and reduced the productive investment, and limited the development of our economy to some extent. From this sense, in recent years, the appreciation of the RMB against the dollar caused not just the loss in the foreign exchange reserves, but more potential and serious loss of job vacancies, which further increased the pressure of employment in China.

(3) A stronger RMB has shifted many domestic investments outside and the outward capital flow created a lot jobs overseas. Besides, the investment abroad may also lead to the multiplier effect. From the view of economy, the multiplier effect refers to the idea that an injection of initial investment can bring about greater increase in national income. In other words, a rise in the initial spending in aggregate demand can lead to more aggregate output generated for the economy. The outward capital flow was used to establish new enterprises and contract projects, and in return more jobs are generated. Besides, The return of investment abroad would probably stimulates more follow-up investment and job opportunities to abroad. In this way, there is relatively reduced investment opportunity and job opportunities followed by the investment at home country.

### **3. The Conclusion and Corresponding Policy**

#### **3.1. The Conclusion and Implications**

The effect of the RMB exchange rate on employment, especially in the manufacturing sector, can be verified through theoretical and research and studying. Concretely speaking, the RMB appreciation will result in a decline in the demand for labour in the manufacturing sector and hence reduce its employment. Changes in exchange rates would affect employment through indirect channels and direct channels such as affecting policy of the monetary authorities, leading to the changes of money supply and demand domestically and of real wages, and thus indirectly affect employment. The movement of Exchange rate can directly affect the employment by influencing import and export trade of manufacturing sector, and the introduction of foreign capital and investment. The detail are described as below:

1. Affecting the employment by influencing the real purchasing power of RMB and wages and benefits

RMB appreciation builds people's consumption confidence, making a contribution to the increase of purchasing power of the Yuan and of temporary welfare of workers. However, through the studies, there is no Cointegrated relationship between the employment in manufacturing sector and the appreciated of RMB. This might resulted from the small simple size applied in the model.

2. Affecting the employment by affecting foreign trade of manufacturing sector

The majority manufacturing industries in china are labour-intensive, and low value-added and skilled as well as easily being replaced consisted the basic characteristics of their products. Exporting those products is the main source of the profits. RMB appreciation led to the exports suffered increased cost and hence lost price competitiveness. It does not only place a gloomy

future for the resource-based, low-cost and low-value-added goods and also for the development and employment of entire export-oriented manufacturing industry; Besides, the appreciation will stimulate the import substitutes entering the domestic market and place a further pressure on the development of manufacturing sector and consequently depressed its employment.

### 3. Affecting the employment by influencing the foreign investment

RMB appreciation would lead to a corresponding increase of price level in factors including real estate, infrastructure, and services, and labour, which will make a significant contribution to the increase of investment cost. Hence the foreign inward investment will relatively less be attractive. Then it is not conducive to the development of the manufacturing industries which rely on the foreign investment dramatically and thereby affected the employment situation of the relevant manufacturing enterprises.

## 3.2. Countermeasures and Suggestions

1. Putting efforts to improving the domestic financial market, and strengthening the ability of manufacturing sector that relied on a lot on the foreign capital to defend against the risk of the exchange rate. Figuring out an effective way targeted at the appreciation of Chinese currencies and improving the international competitiveness of manufacturing enterprises. Besides, the lack of deeply understanding of financial instruments, especially of the derivative financial instruments, result in a lack of effective ways and methods of many enterprises to avoid foreign exchange risk. They should focus on enhancing its Consciousness of exchange rate risk and increase the types of currency payments and settlements, and learn to apply more ways to avoid and manage exchange rate risk as well as develop the capability of dealing with the increase cost resulted from the appreciation. (Gourinchas, P 1998)

2. Adjust the foreign exchange system, and relieve pressure on RMB appreciation. As the long-run effects of movements of exchange rate on the employment are negative and significant, it is necessary to keep the exchange rate relatively stable. For a long time, China encourage enterprises to export, on the one side, foreign exchange reserves continued to increase, on the other side, imports have not kept pace with changes in foreign reserves, leading to the supply exceeds demand in the foreign exchange market and hence increasing the pressure of RMB appreciation. When there is a substantial adjustment of exchange rate, the employment would be inevitably restricted. The RMB appreciation will lead to job losses while depreciation will correspondingly increase employment in the short time. Therefore, it is necessary to maintain a relatively stable policy and insists the floating exchange rate regime according the actual situation, avoiding the acutely and abnormal fluctuation of exchange rate and keeping the exchange rate fluctuated in a reasonable range even under the floating exchange rate regime. Therefore, an appropriate adjustment of the management system of current foreign exchange reserve the Management System of Current Foreign Exchange Reserve in China is a necessary to ease the pressure of Yuan appreciation. (Burgess, S and Knetter, M. 1987)

3. Adjust the industrial structure of manufacturing sector. We need to change the idea of enterprise operation, not just one-sided target for exports and emphasizes the trade surplus. Enterprises especially in manufacturing industries are typical labour-intensive, focus only on the advantage of the relative cheap labour and exporting, ignoring the scientific and technological innovation of its products as well as capital investment and capital structure improvements. Because the majority of China's manufacturing enterprises are still belong to the labour-intensive industries and influenced significantly by movements of exchange rate. Therefore, it is necessary to encourage enterprises to innovate and increase capital-intensive and the export of technology-intensive products. Besides, efforts will be made to improve the industrial structure of export-oriented and reduce sensitivity of labour demand on the movement of the exchange rate. (Hatemi-J, A and Irandous, I. 2006)

4 Lay stress on industrial structure optimization to attract foreign direct investment. The appreciation of the RMB will increase the costs of foreign investment costs. However, in the same time, a revaluation of Yuan will also improve the proportion of profitable returns of foreign investment. For example, further encourage the foreign investment on the high-tech industries and less investment on the industries that already have Considerable know-how. Regarding attracting foreign investment, both optimizing investment structure and improving the quality of foreign investment are of considerable importance, which can reduce the impact of the RMB appreciation on the employment of manufacturing sector, especially some manufacturing companies rely heavily on foreign capital.

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