

## ON THE CURRENT RMB EXCHANGE RATE REGIME AFFECTING THE EFFECTIVENESS OF MONETARY POLICY\*

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**Abstract:** The current exchange rate regime of China is just like the US dollar-pegged exchange rate regime, which weakens the effectiveness of monetary policy but increases the effectiveness of fiscal policy. Since the scope of implementing the fiscal policy is quite narrow, it is necessary to promote the effectiveness of monetary policy by enlarging the elasticity of the RMB exchange rate regime so as to stimulate the rapid development of the Chinese economy effectively.

**Key words:** exchange rate regime, monetary policy, validity

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### INTRODUCTION

Since China started economic system reform in 1978, monetary policy has been fully used to adjust the macroeconomy and achieved good effects. Tight monetary policy controls inflation effectively while expansive monetary policy stimulates economic development forcefully. But in the last few years, the effectiveness of monetary policy dropped sharply and deflation resulted from the expansionary monetary policy. Many theories, such as "insufficient effective demand", "liquidity trap", "structural imbalance" and so on, could justify this monetary policy, whose effectiveness, in my view, is affected by an important influencing factor: the current RMB exchange rate regime.

### CHINA'S CURRENT EXCHANGE RATE REGIME IS JUST LIKE THE US DOLLAR-PEGGED EXCHANGE RATE REGIME

In 1994, we made great strides by reforming the RMB exchange rate, and built a single, managed and floating exchange rate based on the market. In the early years, the range of exchange rate fluctuated greatly, but has decreased sharply since the financial crisis in Asia. In my opinion, the current RMB exchange rate, is in

fact like the US dollar-pegged exchange rate. There are at least two reasons supporting the above viewpoint.

1. Under the current exchange rate regime, foreign trade enterprises must sell their foreign exchange to the authorized foreign exchange bank required to regulate their net exchange positions by the Central Bank of China, which has a trading room in the China Foreign Exchange Trading Center so that it can directly buy or sell the net surplus or shortage of foreign exchange from the authorized foreign exchange banks, so that the RMB exchange rate was kept fixed rate by the direct or indirect intervention of the Central Bank of China(Huang, 1996).

2. Now let us discuss how the current RMB exchange rate was formed. On the basis of the weighted average price in the trade-day before in the China Foreign Exchange Trading Center, the Central Bank of China publishes the basic exchange rates. Then each authorized bank is allowed to publish their posted rates, which may fluctuate in a certain range from the basic exchange rate. The Central Bank of China only publishes the basic rates of RMB to U.S. dollar, Japanese yen and Hong Kong dollar, but each authorized bank's posted rates are more than three. For example, Bank of China publishes 23 posted exchange rates. In practice,

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according to the rates of RMB to U. S. dollar and the rates of U. S. dollar to the other main currencies in the international foreign exchange markets, the authorized banks calculate the rates of RMB to the other main currencies. The rate of RMB to U. S. dollar is relatively stable by government interference, but the rates of RMB to other main currencies fluctuate with the exchange rate of U. S. dollar to these currencies.

From the following table, it is obvious that the fluctuation range of RMB to U. S. dollar was very small from 1995 to 1999. Especially since 1997, the rate of RMB to U. S. dollar was near-

ly fixed. But at the same time, the rates of RMB to other main currencies (Deutsche Mark, Swiss Franc, Japanese yen and so on) fluctuated greatly. Both the orientation and ranges were nearly the same as the U. S. dollar's. For example, from 1997 to 1999, the rate of U. S. Dollar to Japanese yen rose 11.42%, 8.46% and fell 12.42% year-by-year. The rate of RMB to Japanese yen also rose 10.24%, 6.72% and fell 12.98% year-by-year. The rate of U. S. dollar to Deutsche Mark rose 15.16%, 1.7% and 5.43%; also the rate of RMB to Deutsche Mark rose 15.04%, 1.35% and 3.94%.

**Table 1 The Situation of RMB exchange rates and U.S. dollar exchange rates (1995—1999)**

Year	RMB exchange rate (RMB equiv. to 100 units of foreign Currency)								U.S. dollar exchange rate (Currency per U.S. \$)					
	U.S. Dollar		Deutsche Mark		Swiss Franc		Japanese yen		Deutsche Mark		Swiss Franc		Japanese yen	
	rate	(%) <sup>*</sup>	rate	(%) <sup>*</sup>	Rate	(%) <sup>*</sup>	Rate	(%) <sup>*</sup>	Rate	(%) <sup>*</sup>	rate	(%) <sup>*</sup>	Rate	(%) <sup>*</sup>
1995	839.97		575.69		608.84		8.8891		1.4340		1.1835		94.14	
1996	831.24	-0.83	563.84	-2.09	671.39	10.27	7.6506	-13.92	1.5037	4.86	1.2599	6.46	108.79	15.56
1997	828.98	-0.27	479.05	-15.04	572.07	-14.79	6.8669	-10.24	1.7317	15.16	1.4493	15.03	121.21	11.42
1998	827.88	0.13	472.58	-1.35	576.39	0.75	6.4052	-6.72	1.7611	1.7	1.4427	-0.78	131.46	8.46
1999	827.82	0.007	453.96	-3.94	554.72	-3.76	7.2370	12.98	1.8657	5.43	1.5147	4.99	115.13	-12.42

Data come from the magazine "International finance" 1995 - 1999

\* The column is the change rate of exchange rate.

## US DOLLAR-PEGGED EXCHANGE RATE WEAKENS THE EFFECTIVENESS OF MONETARY POLICY

Robert A. Mundell who was awarded the Noble Prize in economic sciences in 1999, contributed greatly to them with his brilliant analysis of how the foreign exchange rate affects the monetary and fiscal policy in the open economy. He believed that under a fixed exchange rate, monetary policy becomes powerless and fiscal policy powerful, whereas the opposite is true under a floating exchange rate. Mundell's theory can be used to explain the change of macroeconomic policy in the western countries. Under the Bretton Woods System, characterized by fixed exchange rate, Keynes' effective demand theory was the mainstream; his expansionary fiscal policy was accepted and adopted by western countries. After the Bretton Woods System collapsed, western countries implemented floating exchange rate universally. At this time, the new theory of

monetary quantity presented by Fridman became prevalent; western countries adopted monetary policy to adjust macroeconomics more frequently.

Mundell's analysis of the effectiveness of monetary and fiscal policy under different exchange rate regime is based on free currency convertibility and high capital mobility, which are not yet attainable in China which has implemented free RMB convertibility in current account and opened more and more economic domains to the world, so a US dollar-pegged exchange rate obviously can affect China's monetary policy and fiscal policy.

### 1. The weakness of the Central Bank of China's initiatives in regulating money supply actively makes it difficult to reach the monetary policy's target

In the "Law of the People's Bank of China," the single target of China's monetary policy is "to keep the money value stable so as to stimulate the economic development". But under the current exchange rate regime, monetary policy actually has double targets, i. e. to keep the price stable in the domestic market and to keep

the exchange rate stable in the foreign exchange market. But the domestic and overseas targets are usually in conflict, and the monetary policy of the Central Bank of China often attains one thing and loses another.

For example, in the middle of 1993, China raised the interest rate, and also tightened the stock market and real estate capital to implement a proper tight monetary policy in order to curb the overheated economy and eliminate economic foam. But the reform of the exchange rate regime in 1994 stimulated export greatly, increased the foreign exchange supply sharply so that RMB faced the pressure of appreciation. In order to keep the RMB value stable, the Central Bank of China had to intervene in the foreign exchange market, sold an enormous sum of RMB to buy US dollars so that the foreign exchange reserve increased by 30.4 billion U.S. dollars in 1994 and 22.3 billion in 1995. With the average exchange rate of RMB to U.S. dollar (in 1994, US \$ 100 = RMB 861.97, in 1995, US \$ 100 = RMB 837.97), the amount of RMB used to buy foreign exchange was 262 billion in 1994 and 186.87 billion in 1995. As a result, the effectiveness of tight monetary policy was greatly weakened, and inflation rate was a high of 21.7% in 1994 and 14.8% in 1995.

Since the Asian financial crisis broke out in July, 1997, China adopted expansionary monetary policy instead of tight monetary policy and implemented a series of forceful measures. But confronted by the enormous pressure of RMB devaluation, the Central Bank of China had to buy less foreign exchange and even sold foreign exchange reserve to maintain the RMB stable. Thereby, Chinese foreign exchange reserve only increased by 5.07 billion US dollars in 1998 and 9.8 billion in 1999. And the RMB put into circulation was much less than before. It is an important reason why money supply increased slowly and domestic price weakened under expansionary monetary policies.

According to the theory of purchasing power parity, some experts explain that the domestic deflation results in strong RMB. On the contrary, I think that the fact that the RMB is pegged to the U.S. dollar and keeps strong is an important reason for domestic deflation, when neighboring countries' foreign currencies exchange rate and main international currencies ex-

change rate were all devalued to U.S. dollar after the Asian financial crisis. The reasons are as follows:

(1) The slowing down of export growth made the domestic market more saturated. After the Asian financial crisis, caused the relative appreciation of RMB, our commodities export to fall evidently and the speed of export growth to decrease greatly which only increased by 0.5% in 1998 and by 6.1% in 1999, far less than the 20% in the early years. Consequently, the commodities that should be exported flooded the domestic market so that the supply greatly surpassed the demand. What was more, since the economy developed slowly, unemployment increased and income decreased. In short, effective demand was falling (Huang, 1998).

(2) The price of import commodities in RMB was falling so that the price of import substitutes, was falling too. On the other hand, the market's import goods increased fast (its rate was 18.2% in 1999), then enlarged the commodities supply, and thus enhanced the pressure of domestic deflation leading to less investment and less products; the vicious circle appeared.

(3) Just as said before, in order to lessen the RMB devaluation's pressure on the foreign exchange market, the Central Bank of China bought less foreign exchange with RMB, So that the RMB in circulation decreased greatly and its domestic value was kept strong.

## **2. More illegal capitals inflow and capitals outflow weakens the transmission mechanism of monetary policy**

Since the economic system reform, interest rate is not only an important tool but also a main mechanism via which monetary policy affects the economy, because the monetary policy variation of the Central Bank of China is first manifested in the variation of interest rate. Up to now, the Central Bank of China formulated our deposit-loan interest rate, and can directly adjust interest rate to affect the loanable fund of financial institutions so as to affect the investment scale and macroeconomy. Under the US dollar-pegged exchange rate regime, the role of interest rate was weak (Jiang, 1998). For example, when the Central Bank of China increases money supply by lowering interest rate to augment enterprise' investment and citizens' consumption, arbitrage

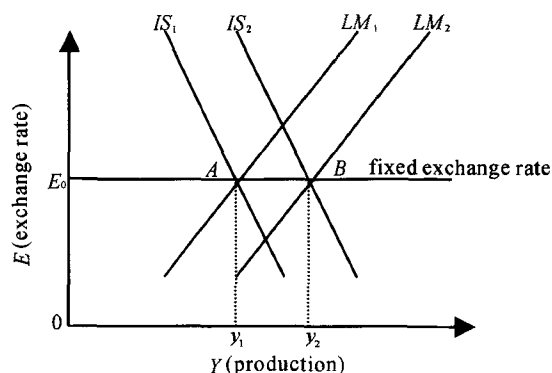
capital will by all means convert RMB to foreign currency for remittance abroad, so the demand for foreign currency increases and exchange rate fluctuates. In order to keep exchange rate stable, the Central Bank of China usually sells U. S. Dollar to buy RMB in the foreign market so as to lessen credit expansion because of lower interest rate. Although RMB cannot be converted freely in capital account, short-term capital flow in and out illegally in current account, especially when anticipation of RMB devaluation is strong, capital will flow out violently. The favorable balance of payments was 23 billion U. S. dollars in 1998, while foreign exchange reserve only increased by 5.07 billion. It is enough to explain the ponderance of capital outflow, and can also be used to explain the little effect of lower interest rate in recent years.

#### UNDER THE CURRENT RMB EXCHANGE RATE REGIME, THE EFFECT OF FISCAL POLICY IS EVIDENT BUT ITS SCOPE IS NARROW

In the light of Mundell's analysis, under a fixed exchange rate, expansionary fiscal policy strongly stimulates economic growth. As the following graph will show, provided that under a fixed exchange rate, economy is equivalent to point A. Now if government stimulates economic development by reducing tariff and expanding government expenditures, the supply and demand curve of goods moves from  $IS_1$  to  $IS_2$ , to generate RMB devaluation pressure. To keep a fixed exchange rate, monetary authorities must expand money supply so that supply and demand curve of money moves from  $LM_1$  to  $LM_2$ , when the commodity market and money market come to a new meeting point B, while products output increase from  $y_1$  to  $y_2$  but exchange rate still keeps fixed at the level of  $E_0$ .

After the Asian financial crisis, China adopted expansionary fiscal policy to make up for the defect of monetary policy. For example, the export tax refund rate was increased to strengthen export competitive power under a fixed exchange rate and to stimulate export. In the domestic market, the Central Bank of China expanded government expenditures and investment to promote domestic demand. The former stimulated export and increased foreign exchange supply;

the latter increased the banks' corresponding loan capital, expanded domestic credit and stimulated economic growth. We can say that, without expansionary fiscal policy cooperation, it is impossible that the increase rate of money supply reaches to the current level and the speed of economic growth reaches the planned goal.



But expansionary fiscal policy cannot be applied eternally and kept highly effective, as its operation space is extraordinarily limited. (1) Comprehensive export tax refund rate now has reached beyond 15%, and is a heavy fiscal burden. Now the government mainly relies on the increasing tax of import goods to relieve this burden. But with China's rapid entry into the WTO, with the tariff on import goods falling continuously, the government cannot bear it in the end. Therefore, increasing the rate of export tax refund can expand export temporarily but not eternally.

(2) The capital for government to expand expenditure and investment mainly comes from treasury bonds. But the ratio of national debt to Chinese financial resources is quite high. For example, it was 37.5% in 1998, beyond the international generally acknowledged warning limit of 15-20%. It will imply certain risk if China expands government investment by continually issuing more and more treasury bonds.

(3) Issuing treasury bonds will produce "Crowding out" (Micheal, 1989), i. e. when the investment of government increases, the investment of other economy bodies will decrease accordingly. If citizens buy treasury bonds, they can directly reduce their investment and consumption. If financial institutions buy bonds, they can cut down the loan for enterprises. But

according to the principle of credit creation, loan can create multiple derivative deposits, whose credit expansion power is several times that of buying treasury bond.

#### THE PROMOTION OF MONETARY POLICY EFFECTIVENESS IS BASED ON THE ENLARGING OF THE RMB EXCHANGE RATE REGIME

From the foregoing analysis, we can conclude that the not just occasional decrease in the effectiveness of monetary policy is closely related to the current exchange rate. We have two choices: one is to stick to the US dollar-pegged exchange rate and give up the idea of adjusting the macroeconomy with monetary policy; the other is to stick to the idea of adjusting economy with monetary policy and increase the elasticity of the current exchange rate. The major advantage of the first choice is to decrease exchange fluctuation and maintain the citizens' confidence in the RMB. However, the problem is how to search for a better substitute if we give up the idea of adjusting the macroeconomy with monetary policy. As shown before, although fiscal policy may make up for the defect of monetary policy under a fixed rate at certain extent, but in the long run, fiscal policy is not a wise choice. From the experience of developed countries, monetary policy is more widely adopted than fiscal policy. Consequently, the second choice is a more intelligent one than the first. If it is beneficial to financial and economic stability to keep the RMB exchange rate fixed after the Asian financial crisis, expanding the elasticity of the exchange rate and improving the effectiveness of monetary policy are more beneficial to the long-term development of the Chinese economy. The current situation is that the finances and economy of Southeast Asian countries are recovering, while the speed of our economic growth is slowing down.

Building a fluctuation zone of RMB exchange rate will be an effective way to expand the elasticity of the exchange rate, which is determined by the situation of the macroeconomy and exchange management system. The Central Bank of China can adjust the fluctuation zone according to the change of the domestic and overseas situ-

ation. Inside the fluctuation zone, the market determines the exchange rate. Outside the fluctuation zone, the Central Bank of China can intervene in the market by buying or selling foreign currency. Consequently it is necessary to adjust and reform the current foreign exchange management system. One is to expand the proportion and scope of free settlement foreign exchange for foreign trade enterprises (15 percent of foreign currencies income in the big foreign trade companies and enterprises is permitted to be retained, but the remaining 85% must be converted into RMB). The other is to loosen control on the net foreign exchange positions of authorized banks. It is the only way to change the role of the central bank, which is the only buyer when supply exceeds demand and the only seller when demand exceeds supply. Once the elasticity of the exchange rate is expanded, when contradiction emerges between the situation of foreign exchange and the requirement of monetary policy, the Central Bank of China could permit the RMB to fluctuate freely; to stick to tight or expansionary monetary policy so as to realize the planned targets. On the other hand, permitting limited fluctuation of exchange rate between RMB and U.S. dollar is not only beneficial for forming a really stable market exchange rate, adjusting the import or export trade effectively (Johnston, 1999), but also to help to avoid the great fluctuation of exchange rate, and maintaining financial and economic stability.

#### References

- Erich, A. H., 1997. *Techniques of financial analysis: a modern approach*. Irwin/McGraw-Hill, Boston, p.273 - 303.
- Huang, Y. J., 1996. The existing problem and improving measures under current RMB exchange rate. *Economic Herald*, 3: 20 - 23 (in Chinese).
- Huang, Y. J., 1998. The J curve effect of the devaluation of southeast Asian countries' currencies and Chinese countermeasures, *Finance or Trade Economics*, 11: 53 - 56 (in Chinese).
- Jiang, B. K., 1998. The cooperation of economic policy under open economics. Fudan University Press, Shanghai, p.105 - 120(in Chinese).
- Johnston, R. B., 1999. Liberalization of exchange and capital controls has fueled global trade and investment. *IMF Survey*, 28(21): 362 - 363.
- Micheal, M., 1989. *International money and finance*, Shanghai Sanlian Store, p.295 - 305.