

Research on the Interaction Among Interest Rate, Exchange Rate Fluctuations and Capital Market

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Abstract: - The interest rate and exchange rate fluctuations have very significant impacts on the domestic economy and capital market development. Adopted from the traditional theory such as the interest rate parity, capital flow theory and the classical theory of IS-LM model, the paper does an in-depth theoretical and empirical research and analysis on the interaction and complex relationship among the three aspects of RMB interest rates, RMB appreciation and securities prices when they change. Research shows that there are strong correlations between Chinese foreign exchange market, money market and stock market; with the RMB appreciation and interest rate increase, the capital accumulation effect and stock assets revaluation effect will promote the overall price level of Chinese Capital market rising. At the same time, in view of the less flexibility in current RMB interest rate and exchange rate, and the reverse impacts between currency appreciation and interest rates, we expect that the effect from RMB appreciation on the capital market will be weakened compared to the past situation of yen appreciation. However, due to the effect that the RMB appreciation is expected to form some international hot money flows, which maybe form a Chinese economic bubble, this trends can not be neglected, it should be did to maintain a high vigilance and to cautiously deal with the relationship between the RMB appreciation and interest rates rise particularly.

Key-Words: - Currency revaluation, interest rates, capital flows

1 Introduction

Interest rate and exchange rate are the two most important variables of prices in market economy, and they are very important for national economic and capital market development. Interest rate and exchange rate fluctuations will have an effect on the respective domestic capital markets through their own path and various mechanisms. In open economy, a country's money market and foreign exchange market have gradually been integrated. As two powerful tools of the money market and foreign exchange market regulation, interest rates and exchange rates have a strong relationship between the constraints linked. Because of interaction and mutual influence of the two powerful tools in the process of transmission, interest rates and exchange rates will have an effect of complex

and diverse on the capital market. Therefore, for the capital markets in which there is the existence of the exchange rate revaluation pressure and rate hike at the same time, not only we will study on the potential impact of rate hike and exchange rate fluctuations to the capital markets, but also must give full attention to research the interaction between interest rates and exchange rate fluctuations and its complex impact on the market. Based on this basic idea, this article will focus on the theoretical study and practical analysis on this tripartite relationship.

1.1 Interest Rate Fluctuation and the Capital Market

Many progresses have been made in study on the relationship such as Capital markets and interest rates, exchange rates and capital markets, interest rates and exchange rates, but there are not many studies on the impact China's capital market that the interest rate, exchange rate fluctuations at the same time will have.

The theory on the relationship between interest rates and securities prices is more mature, that is of the view that there is a negative correlation between interest rates and securities prices. At the same time, according to the income capitalization method of pricing, stock price equals to the sum of the dividend (dividend) discount in future, that is:

$$V_t = \sum_{i=1}^{\infty} \frac{D_{t+i}}{(1 + R_t)}$$

Here, V_t represents the theory prices of stock in the first period t , and D_{t+i} represents corporate dividends paid in the first $t + i$, R_t represents the return on investment in the first period t that investors expect, usually in market interest rates. Above formula shows that stock prices and corporate earnings will change in the same direction, there is a negative correlation between securities prices and interest rates of currency market changes. That is, when interest rate rises, stock prices will fall. On the contrary, when interest rate falls, stock prices will raise.

Because we have not yet achieved in the reform to deregulate interest rates to leave them to market forces, for China's capital market interest rate for the Yuan is an economic endogenous variable as well as a variable policy. As an economic variable, changes in market interest rates will bring about changes of macro-economic environment and the operating results of listed companies, and will have multiple effects on the stock price. As a policy variable, interest rate adjustments will undoubtedly have an effect on the policy expectancy of investors. Benefits of policy interest rates or adverse impact tend to be significantly enlarged and have an impact on stock prices.

1.2 Fluctuations of RMB Exchange Rate and Capital Market

Foreign exchange market and capital market are two important components of the financial markets, which have a special tie and a strong correlation. The theory on relationships between exchange rate and capital market can be divided into two categories. One is goods market approaches. Dornbusch and

Fischer (1980) pointed out that when the exchange rate rises and local currency will lower its value devaluation, exports will be increased, imports will be reduced, which means that domestic enterprises will have more international markets and better profit space. The share prices of listed companies also follow up. These traditional methods of analysis in economics will bring to a conclusion that exchange rate fluctuations will affect the prices of securities in the same direction. Another of the theory on relationships between exchange rate and capital market is Portfolio Balance Approaches that the exchange rate depends largely on the relationship between foreign currency supply and demand. Stock price fluctuations could affect the demand for the currency and the level of exchange rate. A thriving stock market will attract the inflow of overseas capital, which will increase the demand for local currency, the exchange rate will drop, local currency will appreciate. On the other hand, a falling stock market can lead to domestic and foreign capital outflow, which the exchange rate will rise and local currency will depreciate. This analysis will bring to a conclusion that exchange rate fluctuations will affect the prices of securities in the reverse direction.

At the same time, since the 1990s, a number of studies have been carried out on the history of the stock market and exchange rate movements by statistical methods of measurement in an attempt to understand the relationship between exchange rate fluctuations and the stock market changes in a particular country. Ma and Kao (1990) found that appreciation of the currency had an adverse effect on the domestic stock market which a country was of superiority in export, and a positive effect on the domestic stock market which a country was of superiority in import. Studies by Jorion (1990, 1991), Bodnar and Gentry (1993), and Bartov and Bodnar (1994) and Ajayi and Mougoue (1996), had shown that there was a significant correlation between the exchange rate and stock market. Studies by Pan, Fok & Lui (1999) showed that there was a causal Granger relationship about the exchange rate on the stock market, and relationship of the stock market on the exchange rate is relatively weak. At the same time, they found that relationship between stock market and exchange rate became stronger after the Asian financial crisis.

The above study results and analysis of the practical experience of foreign countries had shown that there are some relationships between the stock market and foreign exchange markets.

In the period when economy of a country or a region experiences rapid growth, the international purchasing power of currency in the country or

region will inevitably be enhanced, and inflows of arbitrage capital will be induced, and currency appreciation will be led. Currency appreciation will attract a large number of speculative hot money into the Domestic financial markets. At the same time, changes in exchange rates will affect the share price and slow revaluation of a country's currency will have a positive role in promoting the country's securities markets. The fluctuations in the stock market will cause adjustments of exchange rate policy and exchange rate. Especially when a country's securities market is becoming more open, foreign exchange and stock markets are interrelated in a greater degree.

1.3 Interest Rate of RMB and Fluctuations of Exchange Rate

Interest rate and exchange rate are the two most important variables of price in market economy. Interest rate is the price of domestic capital and the exchange rate is prices of domestic capital relative to foreign capital. On condition that a country's economy is Open, money market and foreign exchange market are gradually united. As two powerful tools of adjustment to money market and foreign exchange market, as well as the central bank's main monetary policy tool, interest rate and exchange rate react upon one another in the process of conduction, and have strong constrain relations each other. Before capital market is analyzed under the pressure of revaluation of RMB and interest rate hike, we must find out the relationship between changes in interest rates and exchange rate fluctuations.

With regard to the relationship between interest rates and exchange rates, there are relevant research results including the parity theory of interest rate, the monetary theory of flexible price, the Donne Bush model, and so on. There is a lack of unity and understanding in these theories about the relationship between interest rates and exchange rate changes. The parity theory of interest rate is the classical theory of how to explain, predict the relationship between interest rates and exchange rates. The essence of the view in the parity theory of interest rate is that on condition that capital is of sufficient international liquidity, investors' arbitrage will make different currency-denominated similar assets in international financial markets have the same return rate.

In general, as cost of capital in money market interest rate has a strong correlation with exchange rate and stock market prices. At the same time, exchange rate fluctuations will also have an impact

on the price of the stock market by market interest rates.

Especially on condition that the financial market is open, the exchange rate becomes more and more sensitive to the interest rate changes. In this respect, we can make use of the number model to explain. According to the Gordon model, the expected stock price equals to the base year dividend per share divided by the difference between the discount rate and the growth rate of annual dividend with that formula:

$$P = D / (i - g)$$

Here, P stands for the stock price, D the base year dividend per share, i the discount rate, g the dividend growth rate. If g assumed to be a constant, because $i = r + k$, of which r stands for market rate, k for stock returns rate of risk, Gordon model can be expressed as:

$$P = D / (r + k - g) \quad (1)$$

The model shows that market interest rates are variable in the opposite direction of stock prices. At the same time, according to parity theory of interest rate, balanced relationship between exchange rates and interest rates can be reflected by parity formula of interest rate which can be expressed as a formula:

$$f = r - r^* \quad (2)$$

Where f stands for discount (premium) rate of the long-term local currency, r for the domestic market interest rate, r^* for the foreign market interest rate. The model shows that when there is difference between interest rates of two countries, the funds will flow from the country with low interest rates to another country with high interest rate to make a profit. The long-term difference between the currencies of two countries is decided by the interest rate difference of the two countries. The currency of a country with high interest rate must be at discount in the long-term market of exchange rate. The currency of a country with low interest rate must be at premium in the long-term market of exchange rate. The long-term premium (or discount) rate of local currency equals to difference between national and foreign interest rate.

If the interest rate parity formula (2) is incorporated into the Gordon model (1), it is:

$$P = D / (r^* + f + k - g) \quad (3)$$

The formula (3) showed that there is a reverse relationship between the stock price P and discount (premium) rate of the long-term local currency f, and there is a positive relationship between the stock price P and the local currency's value. This means that the fall in a country's exchange rate (local currency appreciation) will lead to a rise of the country's stock market prices. On the contrary, a rise in a country's exchange rate (devaluation of the local

currency) will lead to a decline in the price of the stock market.

The impact on the exchange rate which Changes in interest rates have will be as the follows: changes in interest rates will cause changes in the balance of payments through various means and in different ways, and the balance of payments will eventually lead to changes in exchange rates.

In practice, a smooth operation of transmission about interest rates on the role of the exchange rate needs a series of conditions. To study the effectiveness of the theory of exchange rates and interest rates, it requires that capital flow into and out of border. As long as capital can complete freedom of international flows, interest rate changes effectively affect the import and export through the mechanism of exchange rate changes. As for the present situation, China is still in transition from a planned economy to a market economy during the transition period, the market-oriented degree of interest rate and exchange rate is still low. This is mainly manifested in: first, to a certain degree interest rate is of control, is not entirely determined by market supply and demand, interest rate flexibility for consumer demand and investment demand in china is lower than in developed market economy countries. Next, exchange rates is not flexible, major changes of foreign exchange supply and demand are reflected by changes in foreign exchange reserves. In the specific period of transition, the institutional factors did not make transmission mechanism of interest rates on the exchange rate play a full role in the market economy. As for China, capital is still controlled. If the relationship between interest rates and import and export is analyzed from the exchange rate point of view, its practical significance will be greatly reduced.

1.4 Mechanism for Common Action of Interest Rate and Exchange Rate to the Capital Market

In the capital markets, an effect that interest rate has on exchange rate and that exchange rate has on securities prices will be mainly achieved by flows of arbitrage capital. The flows of arbitrage capital depend primarily on the price comparison of the risk return of arbitrage and the time cost of arbitrage. When a country's currency devaluation is expected, a weak local currency means that the currency risk of investment is rising, there is pressure on the outflow of capital. In order to increase costs of international speculative capital and crack down on speculation, the authority often adopt the policy of high interest rates. Rise in interest rates of a country will promptly

cause their stock market fell. Especially on condition that the financial market has been opened, the exchange rate becomes more and more sensitive to the changes of interest rate.

In our country, the risk reward of arbitrage is made up of two parts: first, the differences between the level of domestic interest rates and international the level of interest rates; next, rate of expected changes in the Yuan.

When the risk reward is higher than the cost arbitrage, arbitrage capital will flow in through various channels, so that the supply of foreign exchange will increase in the foreign exchange market, and expectations of appreciation in the RMB market will be produced.

Although China still carries out policies of stringent capital controls, but a variety of short-term arbitrage capital will flow in China's capital markets through various channels and a variety of styles. The short-term arbitrage capital including the gray capital that used to flow out will enter China's capital markets through various legitimate channels, such as trade Credit, investment income, remittances and current transfers, shareholder loans, donations and so on. The inflow of hot money in China will impact prices, and bring about inflationary pressures and the pressure on rise in interest rates.

At the same time, rise in RMB interest rates will further lead to the inflow of more arbitrage capital, which can produce a greater pressure on appreciation of the RMB and accelerate the pace of RMB appreciation, thus push up the prices of securities assets.

From the above theoretical analysis, we can bring to a conclusion that there is the more complicated relationship among interest rates, exchange rates and capital markets. Changes in interest rates and exchange rate fluctuations will have an impact on prices of securities. At the same time, fluctuations of stock market price, in turn, will have an impact on interest rates and exchange rates. As a result, this impact is more subtle, which results in the instability of the money market and foreign exchange markets, increases the frequent fluctuations of interest rates (real interest rates) and exchange rate.

2 Problem Formulation

Many progresses have been made in study on the relationship such as Capital markets and interest rates, exchange rates and capital markets, interest rates and exchange rates, but there are not many studies on the impact China's capital market that the interest rate, exchange rate

fluctuations at the same time will have.

In the capital markets, how interest rate affects exchange rate and how exchange rate affects securities prices will eventually be achieved by the cross-border capital flows. Arbitrage capital depends primarily on the price comparison of the risk arbitrage and the cost of time to pay. In our country, the risk reward of someone who engages in arbitrage is made up of two parts, first, differences between the level of domestic interest rates and international interest rates, that is, the $r_d - r_f$, secondly, expected changes in the rate of RMB, that is Δe . The arbitrage cost is made of the credibility of policy and the transaction costs caused by foreign exchange and capital controls. At present, we have a very favourable international trade balance, the supply of foreign exchange is increasing. It is market expectations that RMB will continue to maintain a slight appreciation trend ($\Delta e < 0$). So the reward for the risk of arbitrage capital inflows is $(r_d - r_f) - \Delta e$ in the domestic financial market. With regard to RMB appreciation, interest rates and capital flows, its impact to capital market on the potential effect, we would like to discuss and analyze.

First of all, when the continued appreciation of RMB is expected, the international arbitrage capital will try to enter the domestic market through various channels. According to the classic IS-LM model (Figure 1), the inflow of hot money will make money supply increase in China's currency market, so that the LM curve is shifted to right from LM0 to LM1. When the IS curve maintain unchanged, intersection points of the LM1 curve and the IS curve is in the E1. So that the domestic real interest rates is dropped from r_0 to r_1 , and lead to the proportion of domestic commodity prices rise in a short period of time. With economic overheating and inflation pressures, the People's Bank of China is to raise its interest[1].

At the same time, in accordance with the theory of capital flows related to international economics:

$$F = f(r +, r^* -)$$

The international flow of capital is mainly determined by the difference in interest rates. The net inflow of capital F correlates closely to domestic interest rates r and negatively to foreign interest rates. When domestic interest rates R rise, it is bound to attract more international involvement in speculative capital. According to the IRP's well-known law and decision theory of equilibrium exchange rates, when domestic interest rates r rise in a short period of time, it is bound to expand the demand for local currency on international financial market. So that the local currency exchange rates e will increase, and lead to

local currency appreciation. That is, domestic interest rates r correlates closely to exchange rate e .

Because of the interaction between interest rate and appreciation of the RMB, it makes impact of interest rate and appreciation of the RMB on the capital markets more subtle complicated. On the relationship between them, we can plan for the following analysis. In the coordinate system, the horizontal axis represents the price of securities in P , the left vertical axis represents the market interest rate r , the right vertical axis represents the RMB exchange rate. The r_p curve show that the price of securities P correlates negatively to the market interest rate r . The e_p curve show that the price of the Securities P correlates closely to Exchange Rate e (indirect price under the law). When e rises, the e_p curve will move to e_{p1} from left to right. When the interest rate r rises, the r_p curve will move to r_{p1} from right to left. So the r_p curve and the e_{p1} curve will intersect at E1, the price of securities rise from P_0 to P_1 . However, because there is a positive changes relationship between interest rate and exchange rate, when the interest rate r rises, the international arbitrage capital will make the RMB exchange rate appreciation or more appreciation. So at this time, interest rates r would rise in fact, the e_p curve will move to the e_{p2} curve from left to right. The e_{p2} curve and the r_{p1} curve will intersect at E2, which offset squeezing effect that interest rate r rise will make on securities prices, and make stock price rise from P_1 to P_2 [3].

3 An Empirical Study on the Correlations Among RMB Interest Rate, Exchange Rate Fluctuation and China Capital Market

3.1 RMB Interest Rate Fluctuation and the Capital Market

Some internal research has been carried out on the issue of the effects of interest rate fluctuations in China. Guo Jinlong and Li Wenjun (2004) had made use of arbitrage pricing model to study effects of China's interest rate change on the stock market, and brought to a conclusion that there is a negative relationship between equilibrium share prices and interest rates. Tu Xiao Min (2005) had analyzed the long-term and short-term effect of China's interest rate adjustments on the stock market since 1993, brought to a conclusion that: In the short term effect, stock prices have a negative relevance to interest

rates, in the long run, the main trend of stock prices change is decided by interest rates and results change of listed companies in direction and magnitude together.

According to statistics, we generalized the changes in interest rate during 1993 – 2000 and the trend of Shanghai Composite Index, and found that they moved in opposite directions, i.e. if interest rate declined, both Shanghai Comp and the theoretical price of stock market rose, and vice versa. During 2000 – 2002, however, although average interest rate fell down, Shanghai Comp didn't go up, went down as well. This is because at that time, the average EPS of listed companies (-13.76 YoY) dropped faster than the interest rate (-5.11% YoY), therefore resulting the decline in theoretical price of stocks and hence the descending Shanghai Comp. The fact that the interest rate during 2000 – 2002 kept falling down and Shanghai Comp didn't increase but decrease, as a result, simply illustrates that the long-term impact of interest rate on the stock market in China coincides with the theoretical analysis, i.e. the long-term trend of stock price is determined by the combination of interest rate and company performance. To learn more, please refer to Table 1 .
Table 1: Volatility of Shanghai Comp before and after the changes in interest rate (units:%)

3.2 RMB Exchange Rate Fluctuation and Capital Market

Against the backdrop of the pressure of RMB appreciation, because the exchange rate is an exogenous variable in the stock market, this pressure is likely to directly or indirectly influence China's securities market through the development of macro-economic environment, earnings of listed companies, international capital flows and market expectations psychology and other factors, and will have a profound impact on China's capital markets.

An effect that appreciation of exchange rate has on the capital market is mainly reflected in two aspects of the current account and capital account.

(1) The impact of current account: re-evaluation effect of listed company value

In theory, local currency appreciation for foreign currency would make the depreciation of assets and liabilities in foreign currency. The delivery of the Yuan revaluation will be by the chain of import and export, which will produce different effects on the value of list companies of different sectors.

In particular, because enterprises which degree of dependence on imports and exports is high, there are more sensitive to changes in Yuan exchange rate, the more pronounced value effect of the Yuan appreciation will be had on the enterprises. The Yuan appreciation will have a positive effect to enhance the value on the import-dominant enterprises and the import service enterprises. The Yuan appreciation will have a negative effect on the dominant export-oriented enterprises, export service enterprises and import substitution enterprises. The two different effects will transfer to stock price performance.

(2) The impact of capital account: promoting effect of stock market funds

In the system of floating exchange rate, appreciation or depreciation of currency in the foreign exchange market is bound to trigger a corresponding adjustment of asset portfolio and changes in the flow of capital and direction of capital. These changes directly affect transaction price changes of money market and capital market, and produce the delivery effects of asset prices in the different stock markets. Although China is still adopting a more stringent capital controls, but in the face of the expected appreciation of the RMB, speculative arbitrage capital of foreign investors will try to enter the domestic market through various channels, which will have the continuing impact on China's stock market. This impact and influence will be reflected in two aspects. First, the performance of arbitrage capital will accelerate the inflow of funds and will knock on prices of stock. Appreciation or revaluation of the RMB exchange rate that is expected will produce the potential arbitrage value, which will attract foreign speculative capital flows in order to obtain an exchange gain. What attracts these speculative capitals is capital markets in which the liquidity degree is high. Second, Appreciation of the exchange rate will have an effect on the structure of stock price. its rate of appreciation of the RMB exchange rate will have a direct impact on the re-evaluation of the domestic stock market value, which results in the investment promotion effect that the intrinsic value is enhanced. These two factors can produce a effect that Chinese stock market will rise to unprecedented prosperity.

date	50 days trading before the changes in interest rate	30 days trading before the changes in interest rate	10 days trading before the changes in interest rate	3 days trading before the changes in interest rate	the day trading the changes in interest rate	3 days trading after the changes in interest rate	10 days trading after the changes in interest rate	30 days trading after the changes in interest rate	50 days trading after the changes in interest rate
21 Apr 91	-9.34	-9.86	-3.67	-1.06	-0.38	-1.09	-4.98	0.42	16.57
15 May 93	5.22	23.67	-14.08	207	-2.35	2.22	-17.94	-12.07	-30.9
11 July 93	-36.08	-10.71	-13.72	-3.24	-2.65	-0.81	-6.83	5.6	3.49
1 May, 96	30.82	20.23	15.28	4.36	-3.92	1.03	4.38	17.46	21.7
23Aug, 96	8.26	3.3	-6.6	-2.08	-1.77	-0.85	-0.31	12.49	15.48
23Oct 97	-2.37	-5.92	3.76	0.09	-0.35	0.39	0.66	-3.2	4.01
25 Mar 98	0.18	-3.44	-0.48	0.45	-0.21	4.86	11.01	11.44	18.22
1 Jul 98	3.17	-2.12	-0.24	-3.10	-1.70	-0.09	1.43	-11.27	-7.48
7 Dec 98	-0.28	0.26	-4.42	-1.83	-0.79	-0.41	-4.56	-4.22	-6.38
10 Jun 99	16.51	25.53	9.11	4.90	1.17	1.70	20.98	13.66	20.04
1 Nov 99	-4.28	-9.24	-2.54	1.48	-0.76	-1.89	-2.78	-5.09	-4.59
21 Feb 02	-12.46	-6.49	3.80	-0.77	1.57	-0.36	8.76	7.21	5.62
20 Dec 03	3.01	8.32	-0.33	-1.37	0	-2.92	-4.90	15.04	-16.96
25 Mar 04	10.88	0.27	0.25	-3.75	3.22	-0.70	1.95	-8	-15.44
29 Oct 04	-1.93	4.47	0.66	2.33	-1.58	0.47	2.40	-0.21	-5.16
17 Mar 05	-4.72	-0.02	-2.48	-2.66	-0.97	-2.94	-5.01	-5.98	-18.29
Apr 28 06	11.50	11.19	6.33	0.49	1.66	7.32	15.10	10.14	16.85
19 Aug 06	3.01	-7.64	1.82	0.15	0.15	0.86	2.38	9.70	16.76

Source: www.gfhfzq.com.cn

3.3 RMB Interest Rate and Exchange Rate Fluctuation

The empirical study on the impact of RMB interest rate on exchange rate during 1981 – 2003 shows that: in the long run, RMB nominal effective interest rate is in coordination with interest rate, and the long-term coefficient of elasticity of RMB relative interest rate to nominal effective interest rate is a minus value. In other words, the interest rate change in China has left a strong influence on RMB nominal

effective interest rate and the interest rate changes will change of RMB nominal effective interest rate in a wider range. Interest rate will exert a relatively strong influence on nominal effective interest rate in the long run, but a weaker one for the short term.

Generally speaking, in western countries where the economies are more open, interest rate can directly influence the exchange rate through capital flows. In China, under the current exchange rate and interest rate mechanism and policy orientation, the capital account is not open enough so that interest rate fails to affect exchange rate in full play. Therefore, interest rate can hardly directly influence

the exchange rate through capital flows but indirectly affect it by commodity market. The transmission mechanism of interest rate to exchange rate is weakened, and as a result the theory of Interest Rate Parity is of limited application in China, which can be illustrated by the relationship between the changes in RMB exchange rate and interest rate during 1994 – 2006.

We had studied the RMB exchange rate and compared 1-year deposit interest rate of China with that of the United States. In theory, when interest rates of RMB r_d is higher than that of the U.S. dollar r_f , the devaluation of the RMB exchange rate moves towards; when interest rates of RMB r_d is lower than that of the U.S. dollar r_f , the RMB exchange rate tends to rise. However, the reality is not the same, the RMB exchange rate had continued appreciating from 1994 to 1996, which range was about 4.5 percent.

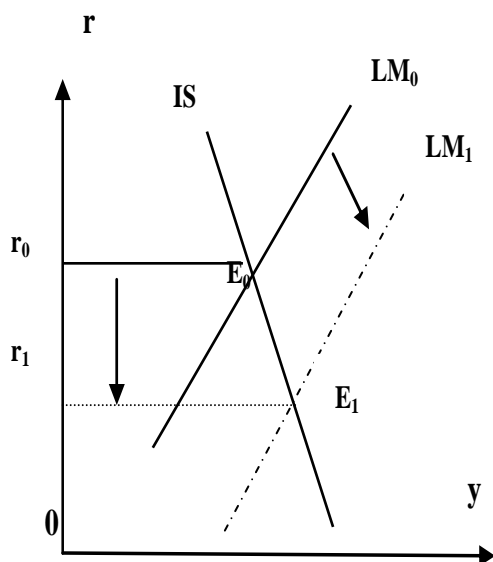


Figure 1: RMB appreciation will lead to the reduction in the level of real interest rates

The empirical analysis above the relationship between RMB exchange rate and interest rate showed that at the present stage the RMB exchange rate can not be explained by interest rate parity. This is mainly related to such factors. First, China's financial market is still not perfect. Second, the interest rate mechanism is not fully market-oriented. Thirdly the capital account has been strictly controlled. Because foreign exchange transaction costs and friction coefficient are both high, and market information is incomplete, market efficiency is not high, so that the interest rate parity become special in china, the relationship among the RMB exchange rate, interest rates, capital flows were

twisted and uncoordinated. As a result, we can not fully understand and discuss the relationship between the RMB exchange rate and interest rates in accordance with the general interest rate parity theory, as well as the problem that the pressure of RMB revaluation and interest rate hike have the possible impact on capital market.

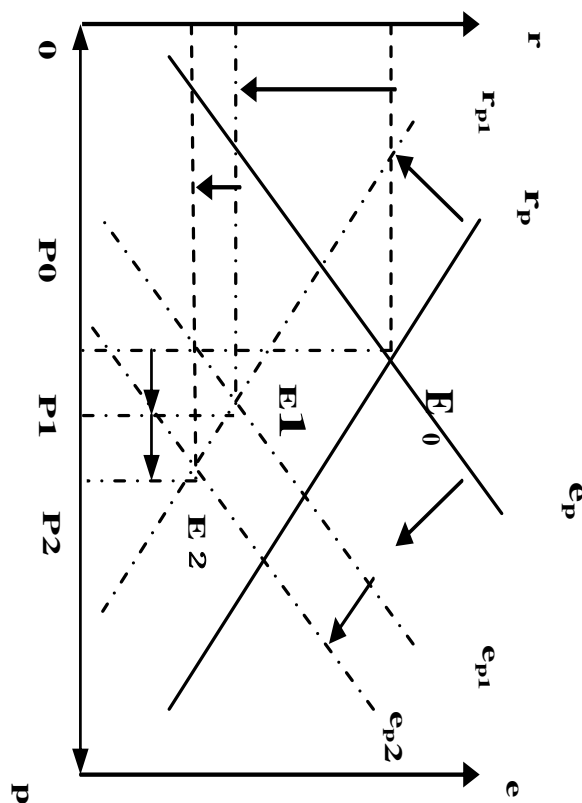


Figure 2: the relationship among RMB appreciation, interest rates and securities prices

It is worth noting that at present as China's accession to the WTO, the domestic market was opened further, the marketing process was pushed forward, degree of integration of the world economy and China's economy was increased, the dependence on foreign trade was rising. The role of the parity rate has been increased. In particular, from July 21, 2005, China initiated the managed floating exchange rate system reform of the Yuan that is based on market supply and demand with reference to a basket of currencies. As the Yuan is gradually convertible and the flow of capital is free, the ability of interest rate parity to explain and predict will become more and more relevant.

4 Conclusion

4.1 The Basic Conclusion

First, foreign exchange market, money market and securities market are of relevance to each other. The capital effect and revaluation caused by the dual pressure of the interest rate increase and RMB appreciation will become a combined force to drive the general price of China capital market to a new level and thus promote the development of the market.

Second, considering the relatively low elasticity of RMB interest rate and exchange rate, together with the reverse effect caused by interest rate increase and appreciation of the currency, the influence of RMB appreciation on the capital market is expected to be weaker than the previous Yen appreciation in Japan.

Finally, given the considerable trend of international hot money pouring into China driven by the expectation of RMB appreciation, it is necessary to keep high alert to the potential economic bubble in the capital market.

4.2 Policy Recommendations

First, careful handling the relationship between interest rates hike and the appreciation, and be ware of the cycle such as interest rate hike - the inflow of hot money, to accelerate the appreciation - to accelerate the inflow of hot money - stock prices continued to rise. As interest rate of the Yuan is far from market-oriented, the sensitivity of interest rate is very low and of latency, for the majority of domestic enterprises the sensitivity of investment behavior to changes in interest rates is low, the role that interest rates hike curbs overheated investment is limited. As a result, the domestic economy cooling can not simply rely on interest rate rise. On the other hand, interest rates rise may lead to speeding up the flow of short-term capital and accelerating the pace of RMB appreciation, which increasing pressure on RMB appreciation will be increased. Consequently external economic imbalances may be led to, and the cooling effect of interest rate rise may be offset, which leads to liquidity surplus and the economy continue to overheat. The excess hot money will flow to the securities market that is of a high degree of the liquidity. the continuing inflow of hot money will likely lead to the creation of the bubble economy.

Second, continue to expand floating space of the RMB exchange rate, and gradually establish the balanced formation mechanism of an effective and

flexible exchange rate market and. Because RMB exchange rate implements a managed floating system, in the face of large capital inflows, China's monetary policy independence is restricted, which makes China's monetary policy in a dilemma. As a result, in the long run, the establishment of an effective flexible exchange rate mechanism of RMB is a more realistic option. Of course, because China's financial market is imperfect, capital market openness is not high, if the RMB exchange rate is market-oriented, this will be detrimental to the stability of foreign exchange market and stock market, and the excessive market volatility will cause a financial crisis. The fully market-oriented exchange rate of RMB must be a slow process to move forward.

Thirdly, since the relationship between the RMB exchange rate and stock price is becoming increasingly significant, we should adopt the countermeasure on the relationship with an aim to safeguard the development of financial market and industries in national economy. on one side, focusing on characteristic of abnormality regard to the relationship, we should release the control on the exchange rate market and foreign exchange market and solve the issue of shares-respectively placed in order to improve the mechanism of stock price shaping, bring back the relation to the normal state under market society. On the other hand, the mutual effect between the two are appearing, with the elasticity of exchange rate strengthened, the countermeasure should be adopted to prevent the expansion and deterioration of financial vibration, also ensure the development of financial market and industries in national economy.

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