A Study on the Relation between Hot Money and Chinese Real Estate Price Index

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Abstract

This study tried to find out the relation between the hot money and Chinese real estate price index with the help of empirical method. The study found out that there is a long term positive relation between the real estate price index and the scale of hot money, analyzed the impact of hot money on Chinese real estate price index and its negative influence over the economy, and proposed some suggestions to control the inflow of the hot money.

Keywords: Hot money, Real estate price index, RMB appreciation

1. Introduction

Hot money refers to the flow of funds (or capital) from one country to another in order to earn a short-term profit on interest rate differences and/or anticipated exchange rate shifts. These speculative capital flows are called "hot money" because they can move very quickly in and out of markets, potentially leading to market instability. Beginning with the No.171 document in July, 2006, the government has adopted series of policies to control the inflow of hot money and the foreign investment to the real estate industry. However, according to the data from the national bureau of statistics of China, the inflow speed of the hot money to the real estate industry has become even faster. There are two reasons leading to this phenomenon: First, the expectation of RMB appreciation. On July 21st, 2005, the People's Bank of China began to reform the formation mechanism of RMB exchange rate, and RMB one-off appreciated against US dollar by 2% to be 1: 8.11. By September 16th, 2014, the exchange rate had become 1: 6.14, and RMB has cumulatively appreciated against US dollar by more than 35%. (Source of data: the web site of the People's Bank of China.) The international evidence has shown that the currency appreciation will impact and shock the real estate industry. As an example, since the assignment of Plaza Accord, the Japanese Yen kept appreciation. And this caused that numerous hot money kept flowing into the Japanese real estate market. The appreciation of RMB strengthened the expectation of further appreciation, hence more and more hot money flowed into Chinese real estate market, too. Along with the enhancement of RMB appreciation, the price level of real estate asset became more attractive. When a foreign investor comes to China, the real estate market will be his first option.

Second, the extremely high return of Chinese real estate industry. The nature of capital is profit pursuing. The extremely high return of Chinese real estate industry is a key reason of the hot money's entrance. The hot money can get higner return than it can get from other countries, especially in the giant cities such as Beijing, Shanghai and Shenzhen, the return rate can be as high as 20% per year, some other cities may have even higher return rate, which is far more higher than the average return rate of 6~7% in the United States real estate industry. Since the nature of the capital is to pursuit high profit and high return rate, the hot money will try to find the opportunity of speculation in China. Currently, Chinese real estate market offers the great opportunity of speculation, which turns out to be the motivation of the hot money inflow.

2. The relation between hot money and real estate price index

Once the international hot money flows into the real estate industry, the price index will be higher and higher, the economy bubble will be expanded bigger and bigger, and the unreasonable structure of real estate industry will be even worse. If the foreign funds drawback, it will hurt Chinese real estate market seriously.

2.1 The hot money will make the real estate price index higher and expand the bubble bigger

According to the real estate industry data from the bureau of statistics of China, the real estate price index of 2013 is 111.5, 11.51% higher than 2012. The index shows us that Chinese real estate market is still booming. At the same time, almost all the real estate price indices of the ten biggest Chinese cities are higher than last year. (Data source: China Index Academy)

The growing of the real estate price index has a tight relation with the inflow of the international hot money. The hot money will make the proportion of real estate investment bigger and form the leverage effect in the real estate industry. This will induce the inflow of hot money to the real estate market and will keep the real estate price index going upward, and finally bubble will occur in the real estate market.

2.2 Causing the unreasonable supply structure of real estate market

The hot money mainly invests in the market of high quality apartment and commercial real estate, and this situation will crunch out the investment of the lower market. As a result, there will be a shortage in the supply of lower real estate market. During the past year, the price level of the biggest Chinese cities growed about 20%. On the one hand, the common household can not afford the real estate, on the other hand, there are numerous vacant apartments without anybody living in. this is a severe conflict between the supply and demand of the real estate market. Besides this, the international hot money and domestic floating funds pool together and stimulate the profit pursuing actions in the real estate industry with the help of bank credit leverage and finally they will make the supply structure more and more irrational. The real estate has the nature of real property, which means the real estate industry should satisfy the citizen's residential demand first of all, but the inflow of international hot money is challenging this function severely.

2.3 Expanding the risk exposure of the real estate industry financial system

At present, the funds used by the real estate supplier are mainly loans from the banks, taking a proportion more than 55%. And some foreign real estate suppliers take some delinquency actions such as fake investment, shortage of capital funds and high debt ratio. As for the residential mortgage, the loan to value ratio can be as high as 70%. The bank system becomes the actual bearer of real estate market risk and credit risk directly or indirectly. Although there is not a typical subprime MBS market in China, there are still many kinds of risk faced by the residential mortgage writer, and the period of high proportion of default is around the corner.

There are many fake residential mortgages because the lending process of real estate mortgage is not strict enough. As a result, many appliers without qualification can get the loan. This phenomenon is the source of the credit risk. If the real estate bubble is broken, it will hurt the banks deeply and shock the financial system.

2.4 The withdraw of hot money will make the real estate industry unstable

The target of hot money is to get profit, and the hot money will withdraw finally. This brings numerous risk to the Chinese capital market and real estate industry. If the expectation of RMB appreciation does not realize and the real estate price index keeps stable, the hot money will withdraw too. The real estates invested by the hot money will be dumped into the real estate market and make the price level jump down. This will shock the stability of Chinese real estate industry, or even worse, shock the whole macro economy.

3. An empirical analysis of the relation between hot money and Chinese real estate price index

The sample of this study are the annual data of 2001~2010. The two variables are real estate price index (RPI) and the scale of hot money (HM). The study adopts the method of World Bank to estimate the scale of hot money:

$$HM = FER - TS - FDI \tag{1}$$

Where FER represents Foreign Exchange Reserve added, TS represents Trade surplus and FDI represents Foreign Direct Investment.

All the data is from the authority institutions. The scale data of hot money is got from The Peoples' Bank of China and the data of real estate price index is got from the bureau of statistics of China.

Table 1. HM(unit: 100million dollar)and RPI of 2001-2010

No.	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
HM	-257	-163	403	768	463	-273	577	326	291	755
RPI	101.1	103.7	104.8	109.7	109.1	105.8	112.3	109.4	105.4	106.4

With the help of Eviews 5.1, using the least square method, the study gets a relation function between the real estate price and the scale of hot money:

$$RPI = 0.0058HM + 105.08 \tag{2}$$

This means there is a long term positive relation between the real estate price and the scale of hot money: per unit (100 million US dollar) of hot money inflow will increase the real estate price index by 0.0058, and this result is coincident with our former theoretical analysis.

4. Policies should be adopted to control the international hot money inflow

Although the capital items are still under regulation in China, the hot money can always find its way to flow into the real estate industry. With the booming Chinese economy, high return of real estate industry and the expectation of RMB appreciation, Chinese real estate industry has become the best option of international hot money. How to control the inflow of hot money effectively has become an urgent question. Hereafter are some policies the authority should adopt.

4.1 Restrict the inflow of hot money to the real estate industry

Economists often use the concept of utility to pricing common goods, but the utility can not represent the actual value of the goods. This will make the price of the asset fluctuate away from its real value and then the asset bubble will occur. If the bubble is broken, it will cause a financial crisis. What's more, in order to get high return, the foreign real estate investors will forestall and take advantage of the market flaw, so that they can drive the price up to the level far more than the real value. The hot money is a kind of speculating capital, and the hot money focuses its investment in top grade apartments and mansions for the sake of high profit. Meanwhile the supply of economical apartments will decline because of their low return rate, and this will drive the real estate prices up to the level unaffordable for the middle and low income households. On the one hand, the common household can not afford the real estate; on the other hand, there are numerous vacant apartments without anybody living in. Thus it is very necessary for the government to adopt some macro policies to control the inflow of hot money to the real estate industry.

4.2 Restrict the inflow of hot money to the real estate industry

First, impose a higher value-added tax rate. The real estate speculating actions gain extra profit by the transference of the property right of the real estates, so the value-added tax rate should be driven up according with the density of speculation actions. But in China, the value-added tax rate is too low, and this stimulates the hot money to speculate in the Chinese real estate industry. Hence a higher value-added tax rate should be imposed on the real estate industry in order to control the speculation of the international hot money. Secondly, we can also control the speculation by the way of imposing special property tax as well as cancel the tax preferential treatment of foreign capital investing the real estate industry. Besides, Tobin Tax has been proved to be an effective method to deal with the short term capital inflow, because the Tobin Tax can raise the cost of the short term capital inflow. The key part of the tax policies is to lower the return rate of real estate industry and change the speculators' expectation of the up-growing real estate price so that the speculators will leave the real estate market by themselves.

5. Conclusions

The article estimated the scale of hot money rushing into China from 2001 to 2010, then calculated the contribution of hot money to Chinese real estate price index and found out there is a long term positive relation between the real estate price and the scale of hot money, which may hurt the stability of the financial system. Thus the government must adopt all the feasible policies to control the inflow of hot money.

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