

Analysis of the Reasons for the Increase of Real Estate Price from the Perspective of Currency Liquidity

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Abstract—China's real estate industry rose in the 1980s, and developed in the 1990s. In recent years, with the promotion of housing system reform and the acceleration of urbanization, the real estate industry has developed rapidly. On the one hand, the prosperity of the real estate industry has improved the quality of residents' living and contributed greatly to the rapid growth of China's economy. On the other hand, the rising housing price and sign of overheated real estate investment have also raised concerns about the real estate bubble. Currency liquidity is a problem that has received much attention in China's economic and financial sector. As residents' income increase rapidly and marginal consumption rate remains at a low level, the difference between deposits and loans is increasing year by year, and huge foreign exchange reserves lead to the excessive quantity of release of monetary base, resulting in excess currency liquidity. This paper analyzes the real estate price from the perspective of currency liquidity and studies the relationship between real estate prices and currency liquidity. It is concluded that real estate monitoring and regulation needs to pay close attention to the problem of excess liquidity and solve the problem of excessive release of currency and illegal infiltration of international hot money to manage excess liquidity. At the same time, it is necessary to strengthen construction and monitoring of other areas affecting housing prices to restrain housing prices.

Keywords—housing prices; currency liquidity; excess liquidity

I. INTRODUCTION

The real estate industry is one of the pillar industries of the national economy of most countries, and its value added accounts for 8.0% to 15.0% of GDP per year. In China, with the promotion of housing system reform and the acceleration of urbanization, the development of real estate industry in China is cyclical after several years of rapid development recently. Since the founding of New China, the major three times of development in the real estate industry have appeared in the past 20 years after the reform and opening up, and each time showing a cyclical pattern of 6-8 years. The first boom period began in the early 1980s. The reform and opening up brought about the rapid development of the national economy and the rapid increase of social wealth.

Under this circumstance, offices, enterprises and public institutions began to build staff housing and assign them to employees in the form of welfare. The second boom period began in 1988, after the revision of the Constitution and the Land Administration Law, when land use rights can be transferred with compensation, which provides a legal basis for real estate to circulate as a commodity. This special boom phase came to an end in the first half of 1993 due to blind encirclement, development, investment and price speculation. The third boom period began in 1998 with the reform of the national housing system. The implementation of monetized housing subsidies after the termination of welfare distribution housing has completely changed people's concept of housing consumption and effectively stimulated social demand. Especially after the financial crisis in Southeast Asia, China's government realized that China's real estate has been operating at a low price for a long time, and the market has not yet been developed, so they adopted policies to start and expand domestic demand and promote housing construction, thereby stimulating residential consumption and driving the sustained and rapid development of the national economy.

Therefore, studying the cyclical changes of the real estate market is conducive to regulating the contradiction between supply and demand in the market, so as to avoid the waste of social resources and optimize the allocation of social resources. At the same time, it is also conducive to correctly grasping the business strategy of housing finance, regulating market behavior by optimizing resource allocation, and avoiding industry risks and even financial risks.

The cyclical changes in the real estate market are highly correlated with the currency liquidity. After the subprime mortgage crisis, the Chinese government adopted loose monetary policy and expansionary fiscal policy, and huge liquidity money poured into the market. At the same time, the expectation of RMB appreciation and the loose monetary policy of developed countries also triggered a large number of international capital flows to the domestic real estate market, which to a large extent, has boosted the rise in China's housing prices. The rapid growth of housing prices has triggered attention and concerns about the real estate bubble in China. In order to prevent major losses caused by

the subprime mortgage crisis in the United States, the Chinese government has issued a series of policies for many years, strengthened the monitoring of bank credit and real estate industry, contracted the monetary roots and the roots, and received initial results. This article starts from the perspective of excessive liquidity such as rapid issuance of money and influx of hot money and reviews the history of rising house prices in recent years. Through the combination of theoretical analysis and data analysis, the reason for the continuous rapid rise in housing prices is discussed and the countermeasures are proposed.

II. ANALYSIS OF FACTORS AFFECTING THE PRICE OF REAL ESTATE BY CURRENCY LIQUIDITY

Currency liquidity means that when the interest rate is low to a certain extent, the rational economic person in the whole economy expects the interest rate to rise; the rational economic person holds the currency instead of the bond, and the demand for money for speculative motive increases. The currency of this speculative motive requires absorbing new currency, so interest rates will no longer fall. This situation, which is affected by financial institutions and their actual activities, is called the “liquidity”¹.

Excess liquidity means that there is too much invested money. These extra funds need to find a way of investment, so there is investment or overheating, and the danger of inflation. “Liquid excess” is sometimes referred to as “excessive capital turnover”.

A. Rapid Currency Issuance Leads to Excess Liquidity

In terms of currency issuance, we should take the growth rate of the real economy as the standard to judge whether the currency is issued too fast: if the speed of currency issuance is far faster than the growth rate of the real economy, it means that the issuance of money has little effect on the real economy, and the issued currency has formed inflation or asset bubbles rather than the increase in production. The country’s overall wealth has not increased significantly, so the issued currency exceeds the standard.

This paper compares the growth of currency issuance and the growth of the real economy from two perspectives. One is comparing the increase speed of currency issuance represented by the growth rate of M2 and the growth rate of real GDP. The other angle is the comparison of newly added money supply (The current money supply minus the money supply in previous year) and the newly added real GDP (the real GDP of the year minus the real GDP of the previous year, the base year is 1990). The latter represents the increased currency issuance corresponding to the real GDP of newly added one yuan, which measures the driving effect of the increase in currency issuance on the real economy. The data in this section are from the China Statistical Yearbook 2010 and the National Bureau of Statistics.

After comparative research, it is found that after the financial crisis, the gap between the growth rate of currency

¹ New Palgrave Economics Dictionary, p518, Economic Science Press, 2000.

issuance and that of GDP is growing. In 2017, GDP increased by 14.4%, while M2 increased by 16.7%, and the growth rate difference was 2.3 percentage points. In 2016, China implemented a proactive fiscal policy and an appropriate loose monetary policy, which made the growth rate increase in 2016 and 2017, with the growth rate of 6.2% and 8.4% respectively. In 2009, M2 grew by 7.7%, and the currency issuance is too fast.

B. The Impact of International Hot Money on Housing Prices

The data in this section is compiled from the data of Balance of Payments of China of State Administration of Foreign Exchange, China Customs Statistical Yearbook and China Statistical Yearbook over the years.

It can be found from "Table I" that before 2009, China was in a state of capital flight, and after 2009, foreign capital began to flow in significantly. The way in which international hot money flows into China is mostly hidden. Therefore, the size of its real scale is still inconclusive. Zhang Ming of the Institute of World Economics and Politics Chinese Academy of Social Sciences shows in research that in the first quarter of 2010 to 2015, the accumulative number of hot money that flowed into China was as much as \$1,754.2 billion, 4% more than the national balance of foreign exchange reserves at the end of March 2015.

TABLE I. INTERNATIONAL HOT MONEY ESTIMATION OF 2001-2016
UNIT: 100 MILLION US DOLLARS

Year	increment of foreign exchange reserve	trade surplus of customs statistics	actual utilized foreign direct investment	estimator of hot money
2001	304.20	54.00	337.67	-87.47
2002	219.80	167.00	375.21	-322.41
2003	314.30	122.20	417.26	-225.16
2004	348.60	404.20	452.57	-508.17
2005	50.70	434.70	454.63	-838.63
2006	97.20	292.30	403.19	-598.29
2007	109.00	241.10	407.15	-539.25
2008	456.90	225.50	468.78	-237.38
2009	742.40	204.30	527.43	10.67
2010	1168.40	254.70	535.05	378.65
2011	2066.80	492.80	606.30	967.70
2012	2289.40	1248.00	603.25	438.15
2013	2475.00	1489.00	630.21	355.79
2014	4619.00	2662.00	747.68	1209.32
2015	4177.81	2900.00	923.95	353.86
2016	4531.22	1960.70	900.33	1670.19

² Source: State Administration of Foreign Exchange

It can be seen from the data analysis that the estimated amount of hot money flowing into China in 2016 is 167.019 billion US dollars. According to the average exchange rate of RMB to US dollar of 6.82 in 2016, the inflow scale of hot money is equivalent to 8.69% of the newly added M2 in 2016. It is indicated that the impact of international hot money on China's real economy cannot be underestimated, and a considerable part of these international hot money flowing into the country has flowed into the domestic real estate market.

C. *The Impact of Excess Liquidity on Housing Prices*

Throughout the development of China's real estate industry, it can be seen that every increase in housing prices is accompanied by hidden speculative demand, and behind speculative demand is the phenomenon of excess liquidity such as rapid currency issuance and hot money inflows. As one of the main carriers of the bubble economy, real estate surplus will undoubtedly contribute to the overheating of real estate. The main investors of speculative demand do not want to obtain the right to use the house, nor are they interested in the profit of the house. They only hope to obtain the spread interest through speculation, which will inevitably lead to the phenomenon of rising housing prices breaking away from the actual situation of the market, and cause abnormal fluctuations in the real economy.

At present, China's real estate funding sources are narrow. Both development funds and residents' purchase funds rely mainly on bank credit. In recent years, the investment enthusiasm of Chinese banks and local governments has soared. They showed special preference to real estate industry that has never experienced a real downturn. After the financial crisis, China's monetary policy was once extremely loose and the new exchange rate reform of RMB and the loose monetary policy of developed countries also caused a large amount of hot money to flow into China and invest in the real estate industry. In the end, the combination of these forces has caused a huge impact on China's real estate market, which has contributed to the continued rise in housing prices.

Through the above analysis, it can be found that there is no part of the issued currency that drives the growth of the real economy and a considerable part of it has entered the stock market and the property market together with international hot money, resulting in an asset bubble.

Through these economic phenomena, we can dig the internal factors to discover the impact of excess liquidity on housing prices.

First, excess liquidity induces speculation demand to sprout or increase. Excess liquidity constitutes ample capital flow, and these capital flows tend to exist in the form of speculation. As analyzed at the beginning of this section, the investment subject of speculative demand is only interested in the spread interest gained rapidly, which is reflected in the frequent switch transaction in real estate in the market, leading to an increase in trading volume and rising in housing prices. These funds will first be concentrated in first-tier cities with relatively large market and developed economy. When the regulation of first-tier cities is tightened, they will turn to small and medium cities far from policy influences.

Second, excess liquidity often increases expectations of the economic outlook. Adequate funds ensure the continuous and steady rise in housing prices, which on the one hand increases the value of collateral, making it easier for companies to obtain loans from banks and increases bank lending. On the other hand, it increases the wealth of ordinary residents as property owners. Both of them increase

people's optimistic expectations of the economic outlook and make people more willing to turn wealth into housing estates that can continue to appreciate, which further increases housing prices.

Third, the excess liquidity that flows into the stock market has the effect of driving the rising of share price, which will also be transmitted to the housing market. On the one hand, the popularity of the real estate sector has increased the source of funds for the real estate industry, accelerated its expansion rate, and promoted the heat of investment and development progress of the real estate industry. On the other hand, it has also increased the wealth of equity holders, and people are more optimistic about the real estate industry, resulting in the rapid growth of enthusiasm in housing investment and rising of housing prices.

In addition, as previously analyzed, the appreciation of RMB, the low interest rates of developed countries and the economic slowdown have made international hot money penetrate into the country through various channels. The international hot money will make full use of the defect in financial system and financial supervision of developing countries and Chinese people's good expectations of the stock market and the housing market to invest and speculate in the virtual sector, which will promote unreasonable fluctuations in house prices.

III. THE COUNTERMEASURES TO CURB THE RISE OF CHINA'S REAL ESTATE PRICES

A. *Dealing with Excess Liquidity in Currency Issuance*

1) *Making full use of monetary policy to moderately tighten money in circulation:* In macroeconomic regulation and control, central banks should make full use of monetary policy instruments, such as deposit reserve ratio, interest rates and open market operations, to play an important role.

On the one hand, in order to reduce the ability of commercial banks to lend and credit creation, the central bank can take measures such as moderately increasing the statutory deposit reserve ratio. Raising the deposit reserve ratio to recover liquidity, to some extent, reduces the supply of M2, restricts and reduces credit of commercial banks, and helps to ease liquidity in currency issuance, which have a positive effect on curbing the source of inflation.

On the other hand, the central bank can adopt measures that combine the issuance of central bank bills and the use of reverse open market operations when necessary. The former can shrink liquidity and effectively withdraw funds, thereby playing the role of returning the base currency in a direct sense. The latter can alleviate the excessive impact resulted from changes in the statutory deposit reserve ratio, thereby reducing the excess liquidity of financial institutions and weakening their credit capacity while maintaining the necessary stability.

2) *Strengthening supervision over bank credit financing:* In order to reduce the source of speculative funds, the bank credit system should be improved to prevent moral hazard

and irrational expansion in the process of bank credit financing.

On the one hand, loan management of real estate development should be strengthened, the investment direction of real estate development loan should be regulated and guided, real estate development targets should focus on supporting residential projects, adapt the price to the purchasing power of low- and middle-income families, and it is necessary to reasonably restrict for large-scale commercial housing, villas and other large-scale projects.

On the other hand, it is suggested to strictly control investment in housing purchases to prevent financial risks caused by overheated property market. In order to curb the excessive housing prices and the false prosperity of the property market, it is necessary for the central bank to consider formulating a series of credit policies to control the proportion of mortgage loans for multiple houses, namely, guaranteeing one-house loan in accordance with current state regulations, restricting the loan for two houses, and controlling the loan for more than three houses. At the same time, we should focus on prevention and control of housing price bubbles caused by artificial real estate speculation, strictly prohibit speculative housing, and prevent bank loans from being used for residential speculation.

B. Preventing Illegal Infiltration of International Hot Money

1) *Maintaining the long-term stability of China's exchange rate policy:* It is necessary to maintain a stable RMB exchange rate, gradually adjust the RMB exchange rate in an orderly manner, and reduce speculative opportunities for international hot money. Nowadays, after two RMB exchange rate reforms and the loose monetary policy of developed countries after the financial crisis, the expectation of RMB appreciation is getting stronger and stronger. To this end, it is increasingly necessary to emphasize the stability of the exchange rate and increase the possibility of two-way fluctuations. The stability of the exchange rate expectation can curb the flow of foreign hot money, and thus reduce the scale of the inflow of foreign capital into the real estate industry. In addition, conditions should be created for the appreciation of dispersed market.

2) *Strengthening the monitoring of international hot money through various channels:* The State Administration of Foreign Exchange and the Ministry of Construction shall introduce regulations to strengthen the regulation of foreign exchange management in the real estate market. The monitoring of foreign capital inflows in the balance of payments should be strengthened, especially for the inflow of short-term international capital. In order to prevent the illegal infiltration of international hot money and stop overseas hot money from speculating in China's real estate market, it is necessary to restrict the entry conditions of foreign capital and restrict and standardize the management of foreign commercial institutions and individuals to purchase commercial housing in China. Since China's

capital projects are not fully open, it is reasonable for government to monitor and restrict hot money in speculating in the housing market, so the government should strictly curb speculation and profiteering in any real estate market through various policies.

C. Strengthening the Construction and Monitoring of Other Areas Affecting Housing Prices

1) *It is necessary to rationally develop financial markets and capital markets:* On the one hand, the overheated housing market reflects the problem of excess liquidity. On the other hand, it also reflects the fact that China's financial market is still immature and investment channels are limited. The excess liquidity is opposite to the lack of investment channels, resulting in excessive capital investment in the housing market. Therefore, we should vigorously develop financial markets and capital markets to solve diversion of high savings. At the same time, it is suggested to guide the liquidity direction through taxation and other policies and leads them to the construction of urban public housing, such as affordable housing and low-rent housing, to increase the supply of affordable housing in the residential market, and improve the domestic factors of excess liquidity.

2) *It is necessary to rationally control the urbanization process:* China's urbanization process is at a high-speed stage. As urban areas continue to expand, urban population continues to increase, and cities become more prosperous, problems such as scarcity of land resources, unreasonable urban construction planning, and high housing prices are also prominent. Therefore, urban expansion should be treated with caution. Local governments should strictly implement national policies, strictly plan the use of soil, prevent unreasonable expansion, ensure adequate residential land, and guarantee the supply of residential land. At the same time, we should also make full use of the high demand in the process of high-speed urbanization, and combine with the housing market regulation policy to rationally and orderly regulate housing prices. National fixed asset investment grew rapidly, and the proportion of real estate investment in GDP is gradually increasing. With the continuous improvement of the economic level of urban residents, the demand for home purchases continues to grow, the real estate industry has developed rapidly, and the development of the past 20 years has made remarkable achievements. The per capita housing area of China reaches 20 square meters, the rural area reaches 25 square meters, and the residential completion rate reaches 70%. The added value of the residential industry accounts for the proportion of GDP in city reaches 4%, and that in the urban and rural areas is totally 7.5%, and the real estate industry has risen to the status of the pillar industry. In the past two years, the contribution rate of housing construction to economic growth has been around 1.5 percentage points.

3) *Strengthening the macro-monitoring and management of the real estate market:* Appropriate policies

should be formulated to strengthen the management of real estate investment, accelerate the construction of information disclosure system for the real estate industry and the construction of a macro-regulatory system, establish a unified national real-time market operation early warning and forecasting system, and strengthen and improve the macro-monitoring system. It is necessary to establish and improve the system for forecasting and monitoring market supply and demand, price, operation, etc. and analysis and feedback of the corresponding information as soon as possible, to ensure the sound operation and healthy development of the real estate market through economic, legal and administrative means.

IV. CONCLUSION

The excess liquidity factor is a very important reason for the rising of housing prices. Compared with the growth rate of the real economy, the issuance of money is getting faster and faster, and the newly issued currency is playing a smaller role in the real economy. With the appreciation of RMB, the high economic growth of developing countries and the loose monetary policy of developed countries, international hot money infiltrated into the domestic market and entered the stock market and the housing market. Merged with the rapid currency issuance, the two forces resulted in the formation of asset bubbles, increasing inflationary pressures, and a decline in the proportion of residents' wealth. At the same time, the flow of liquidity into the housing market has given rise to speculative demand and raised housing prices. In turn, what is corresponding to the depreciation of wealth is the high growth of housing prices, and the proportion of housing required for consumption is growing.

Therefore, this paper believes that real estate regulation and control needs to pay close attention to the problem of excess liquidity. The problem of excess liquidity should be governed by solving the problems of currency issuance, illegal infiltration of international hot money, difference between deposits and loans, and it is necessary to strengthen the construction and monitoring of real estate related fields. In the end, it effectively curbed the rise in house prices.

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