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A Review of the Chinese Real Estate Market[1]

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Abstract

The Chinese real estate market has undergone rapid growth within the past decade. Although the growth of the real estate market has helped the Chinese economy, there are many underlying problems to such a hurried rate of growth. This paper briefly looks at the background of the real estate market leading up to the current situation, and then discusses some of the potential problems and government responses.

[1] I would like to thank Professor Franklin Allen, Nippon Life Professor of Finance; Professor of Economics; Co-Director of Financial Institutions Center, for very helpful comments and discussions. I would also like to thank my parents, Shalin Qiao and Hanlian Dai, for their support.

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Background

Arguably the current Chinese real estate market conditions can be traced back to change in government policies. Before 1998 the Chinese government controlled the distribution of properties[3] and the real estate market itself only played a secondary role. The real estate market operated under “dual tracks" in which both government control and market mechanics existed. Mortgages did not exist for individuals. People working for government-owned enterprises, which were dominant before 1998, were provided with a residence at prices significantly lower than market prices due to subsidies from their employers. In July of 1998, real estate became commercialized through reform policies. Local governments have established programs to sell real estate to people instead of providing them with housing as part of employment benefits.

With this policy change, consumers’ perception of the real estate market changed drastically. Before 1998, real estate was mainly perceived as something of practical value, but never as investments since individuals could not buy or sell freely. After the reforms in 1998, people’s perception of real estate shifted from something purely practical to an attractive channel of investment. There was a lag between the time the real estate market became commercialized and when the masses started investing in real estate. From 1998 to 2003, real estate prices only increased 3.5% annually, while personal income per capita increased at a much higher 9.5% annually. Roughly starting in 2002 many people viewed the real estate market as a good investment, and many started pouring their money into it.

[3] Shen, Yue and Hongyu Liu (2004). “Housing Prices and Economic Fundamentals: A Cross City Analysis of China for 1995-2002,” *Economic Research Journal*, 2004-06

Perhaps the most important reason why Chinese investors rush to the real estate market is because there are limited ways to invest in China. China's stock market capitalization as a percentage of its GDP has consistently been lower than the world average and much lower than that of the United States (Figure 1 and Table 1). In Figure 1, China's market capitalization expressed as a percentage of its GDP has been lower than the average market capitalization in percentage of GDP of the world every year since 1998 until 2006, and has been lower than the same measurement in the United States every year since 1998 except 2007[4]. In years 2006-2009, the percentage of market capitalization to GDP jumped almost threefold from 34.6% in 2005 to 89.3% in 2006. This percentage in 2007 also increased drastically by almost doubling: 177.6% in 2007 compared to the figure in 2006. Conventional wisdom dictates investors either invest in the real estate market or the stock market. Interestingly, although the Chinese stock market grew dramatically in 2006 and 2007, the Chinese real estate prices did not experience drops of similar magnitudes in those years.

Shanghai Stock Exchange (SHSE) and Shenzhen Stock Exchange (SZSE) started operating in 1990. Initially after their inception, the two grew quickly for about a decade, continuing through the 1990s to the end of 2000, where the market peaked. The market then reversed for the next five years and lost half of its market capitalization. This downward turn of the overall market coincided with the furious growth of the real estate market, which grew rapidly between 2002 and 2006. This could be because after 2000 when the 1990's bull market

[4] "Market Capitalization of Listed Companies (% of GDP) | Data | Table." *Data | The World Bank*. Web. 26 Oct. 2010. <http://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS>.

ended, investors started to look for alternatives investments. By then the perception change in consumers have caught up with the investors, hence they began investing heavily in real estate.

China's bond market is also underdeveloped. There are several possible reasons for this. As a developing country, China has not developed sound accounting or auditing systems, and there are no high-quality bond-rating agencies. Like most other emerging countries, China has low creditor protection and an inefficient legal system, which means the chances for bondholder recovery in the event of default is slim to none. This in turn leads to under-investment in the bond market by both domestic and foreign investors. Lack of a well-constructed yield curve is another important factor for China, given the small size of publically traded Treasury bond market and lack of historical prices.

Since the bond market and stock market are not well-developed in China, many firms obtain capital through the following ways[5]:

1. Domestic bank loan
2. Firms' self-fundraising
3. State budget
4. Foreign direct investment

[5] Allen, Franklin, Douglas Gale and Meijun Qian (2008). "China's Financial System: Past, Present, and Future," Chapter 14 in *China's Great Economic Transformation*, L. Brandt and T. Rawski, Eds., Cambridge University Press.

Of these four channels, self-fundraising and bank loans are the largest areas in which firms obtain capital. Self-fundraising may involve private investors, but this market is not structured. Private investors could invest through non-standard channels through firms' self-fundraising, but if a person does not have a private connection to some firm that needs fundraising, he will have a lot of difficulty investing in these firms.

China's foreign currency reserve has been growing steadily since 2003. China has become the country with the largest U.S. dollar reserve: $2.65 trillion[6] as of September 2010, with a large fraction of the U.S. dollar denominated assets help in form of T-bills or notes. While the foreign currency reserves grew in China, the exchange rate of the Chinese RMB has been held fixed to the U.S. dollar with the exception of a short period between July 2005 and July 2008, and recently when the United States and Eurozone have been putting pressure on China to appreciate the RMB.

There are several reasons for China's insistence on a fixed RMB-Dollar exchange rate. Although China has grown rapidly in the past decades, it is still a developing country. The RMB was initially pegged to the U.S. dollar to maintain credibility of the Chinese RMB[7]. Perhaps the U.S. dollar is not a good choice for China to peg its currency, but it may be the best choice. China's economy has been growing at double-digit rates for more than a decade. Given the size

[6] "Country Comparison: Reserves of Foreign Exchange and Gold." *Welcome to the CIA Web Site — Central Intelligence Agency*. Web. 26 Oct. 2010. <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2188rank.html>.
[7] Zhang, Zhichao (2000). "Exchange Rate Reform in China: An Experiment in the Real Targets Approach," *The World Economy*, 23, 1057-1081.

of China's current economy, there are only three large advanced economies China could fix its RMB exchange rate to: United States, Japan, and the Eurozone. The global financial crisis has revealed that European banks are in worse form than their American counterparts, and corporate debts are higher in Europe than those in the United States. Most Eurozone countries including larger economic powers such as Italy, Germany, Spain, and France have higher levels of public debt, as a percentage of their respective GDP, than the United States (Figure 3). Pegging the RMB to the Eurozone would not provide the stability China desires.

Although Japan has been the world's second largest economy after the United States since 1968 until recently, Japan's economy is still recovering from the catastrophic crash in the early 1990s. Rising real estate and stock prices caused the Japanese economy to overheat in the late 1980s, forming the famous Japanese asset price bubble. Japan had a hard landing as this bubble came to an abrupt end in 1989 as the Tokyo Stock Exchange crashed and the real estate prices peaked in 1991. Japan's economy has been in shambles since then, growing at an annual rate of 1.5% throughout the 1990s. Hence, Japan is not a good choice for China to peg the RMB. Given the above economic conditions, the United States dollar is the best choice for the China to peg its RMB.

Additionally, the Chinese government does not have much experience with a floating exchange rate. Throughout the past few decades, coinciding with the fixed exchange rate regime was the rapid growth of the Chinese economy. The Chinese government may infer from this that a fixed exchange rate of the RMB is beneficial for China. On July 21 2005, China announced it

has moved to "a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies."[8] The Chinese RMB appreciated from 8.28RMB/USD in May of 2005 to 6.84 in July of 2008, when the financial crisis was imminent. Through this series of events, the Chinese government again sees fixed exchange rate to be positive and floating exchange rate to be negative as the floating RMB regime ended in the financial crisis. The Chinese government has seen what a fixed exchange rate did to the Chinese economy, associating it with the Chinese economic boom, but does not know what a floating rate system will do for the Chinese economy in the future. The government may be reluctant to switch to a floating exchange rate due to its unfamiliarity to the new system and the uncertainties associated with this unfamiliarity. The only experiment with a relatively hands-off RMB exchange rate ended badly. Currently although China claims its RMB exchange rate is floating with a reference to a basket of currencies, it is heavily controlled managed float at best.

Perhaps most importantly, China is still highly reliant on exports for its rapid economic growth. An appreciating Chinese RMB means relatively more expensive Chinese goods, leading to lower levels of exports. Lower levels of exports can have strong negative effects on the Chinese economy. The lightest consequence would lead to instability of small to medium sized exporters, and more serious consequences could include slower growth of the overall Chinese economy. For the above reasons, China has kept its RMB fixed to the U.S. dollar for the majority of the past decade. Fixing the RMB/USD exchange rate led to an increase in base

[8] Hu, Xiaolian (2010). "Three Characteristics of the Managed Floating Exchange Rate Regime," *Central Banker's Speeches*, Bank for International Settlements.

currency liquidity, which leads to increases in investment and as a result the rising prices in investment vehicles, furthering the boom in the real estate market.

A final factor contributing to the rise of the Chinese real estate market is loose monetary policy. Totaling bank reserves and deposits, there are 70 trillion RMB in China. To put this amount in perspective, China's $2.65 trillion U.S. dollar reserve is approximately equivalent to 17.7 trillion RMB at the current exchange rate (6.68¥/$) – barely more than a quarter of the amount of RMB in China! Unlike the U.S. dollar which is accepted widely around the world, the Chinese RMB is only widely accepted within the borders of China. Such a large amount of RMB in circulation must be allocated somewhere: Investors are looking for ways to invest their money, and the real estate market has looked attractive since 2002.

All in all, the Chinese market is not as developed as advanced economies such as the United States. In fact, it is small compared to many emerging economies. There are limited ways people can invest money in China, therefore a higher proportion of investments are poured into the housing market compared to the United States. To add to this, money from inside and outside of China is being poured into the real estate market like never before. Between 2002 and 2006, many Chinese investors flocked to the real estate market to invest. In this time, Chinese real estate prices skyrocketed.

Figures 4, 5, 6 serve to illustrate the disparity between disposable income and real estate prices in three large cities: Beijing, Shanghai, and Shenzhen. As shown in the figures, in these large cities the disposable annual income growth has grossly lagged the growth in real estate prices. Of the three, Shenzhen seems to have the most diverging prices between disposable income and real estate prices: By the end of 2009, the real estate prices in Shenzhen were approximately four times the disposable income. This ratio for the end of 2009 is lightly lower for Beijing and Shanghai, at around 1.7 for both cities. It is interesting to note that overall China's national average real estate price seems to be growing at similar rates as the national average disposal income, even through the global financial crisis period (Figure 7).

Government Response

Faced with the unique situation of its real estate market, the Chinese government has implemented a series of policies since 2003 to pose restrictions on the real estate market. These measures are taken in attempts to stabilize the real estate market. The Chinese government wishes to stabilize the real estate market prices through increased supply at the lower end and decreased demand at the higher end. If this is successful, there will be more transactions at the lower end of the market and fewer transactions at the higher end, allowing the prices to adjust accordingly.

Perhaps the most urgent problem is that the real estate prices in China have become so high that many people who need housing for practical living purposes cannot afford to purchase a home. Luxury apartments in Beijing are selling for more than ¥100 000 per square meter (the

apartment roughly costs ¥20 million), while the typical monthly income for a white-collar worker is only a few thousand yuan. Even real estate aimed at these middle-class income earner are marked anywhere from a few thousand yuan per square meter to fifty or sixty thousand yuan per square meter.

The Chinese government has taken the initiative to increase the supply of lower-end housing in an attempt to solve the problem of low-income people not being able to afford housing at all. Chinese experts agree that promotion of low-income housing by local governments is one of the key factors in curbing China's rising real estate prices. The government strives to increase affordable housing, low-cost housing, public rental housing, price-limited housing, and other construction of affordable housing. Chinese government encourages commercial banks to provide loans to the development of low-income housing and develop policies that support public rental housing construction with medium-to-long term loans. Increases in the construction of low-income housing will help to deter speculation in China's real estate market and therefore help cool down the rising real estate prices in China.

According to Hou Ximin, an official from the Ministry of Housing and Urban-Rural Development, as the end of August China had begun building 4.1 million low-income housing units which accounts for seventy percent of the full-year plan, and invested 470 billion RMB ($70 billion), equivalent to sixty percent of the full-year plan[9]. Also part of the initiative, China

[9] "Low-income Housing Key to Curb Rising Home Prices." *China Daily Website - Connecting China Connecting the World*. Web. 27 Oct. 2010. <http://www2.chinadaily.com.cn/business/2010-10/04/content_11376996.htm>.

plans to build 3 million low-cost rental housing units, transform 2.8 million housing units found in shanty towns, and renovate 1.2 million dilapidated rural houses by the end of 2010. This is the most ambitious task China has undertaken in recent years. Most of the implementation of these policies will be at the local government level, who will shoulder the responsibility to guarantee low-income housing is properly constructed to meet the basic needs of the residents. Chinese central government officials are urging local governments to adopt stricter measures to ensure the overall targets are met.

To control for the massive demand for housing, the Chinese government has implemented various restrictions on ownership of multiple properties. Healthy demand is not an issue, but of the total demand for housing, a big portion is speculative. Since 2004, the Chinese government's policies have been focused on reducing speculative activities in the real estate market. Most of these restrictions are set on banks' lending policies. The policies include the following[10]:

1. Increase People's Bank of China's required reserve deposit ratio, to discourage excessive lending from banks to finance housing
2. Increased equity down payments shares from 20% to 30% for first homes of more than 90 square meters in size

[10] Clarke, Donald, Peter Murrell, and Susan Whiting (2008). "Law, Property Rights and Institutions," Chapter 11 in *China's Great Economic Transformation*, L. Brandt and T. Rawski, Eds., Cambridge University Press.

3. Increased equity down payment shares from 40% to 50% for second homes
4. Discouragement of the use of any leverage on third homes or by external buyers – those not living in the market of the intended purpose
5. New rules to prevent developers from hoarding housing units
6. Preparation of the introduction of a local properties tax, with possible pilot implementations in Chongqing, a large city under direct control of the central government, within one or two years.

There are also rules for increasing mortgage interest rates as an investor purchases multiple properties. For a purchase of a second piece of property, the mortgage on that second property may be ten to twenty percent higher than the loan on the first property. As mentioned above, banks are generally discouraged from approving a mortgage on the third property, especially in major cities such as Beijing, Shanghai, or Shenzhen where real estate prices have recently risen very quickly. Mortgage on a third property may be approved on a case by case basis in cities where real estate prices have not increased as quickly as those in major cities. If the loan is approved, the interest rate on the mortgage is 1.5 times higher than the interest rate on the first property. The proposed property tax could play a significant role in cooling down the real estate market, since it would raise the cost of carry on speculative investment.

Perhaps the Chinese real estate market has been diverging in two directions since 2002 when consumers' perception of real estate as legitimate investments solidified. Two prices appeared: A lower price for practical-use housing and a much higher price for investment

housing. The Chinese government is trying to increase the supply of practical-use housing and decrease the demand for investment housing. This effort serves to narrow the gap between the two diverging prices in the real estate market and in turn stabilizes real estate prices.

Problems

Real estate market affects many other areas of the economy. A boom in the real estate market means increased construction which in turn means increased demand for areas such as basic materials, construction labor, interior decoration labor, and real estate agents. As the real estate market quickly expands, its effect on these various other industries gains more weight, especially on the financial and banking industries. Financial institutions such as banks must keep lending to keep up with the demand for financing for housing. If China's real estate growth suddenly comes to a halt, Chinese financial institutions will be negatively affected, among other industries which have become dependent on the real estate market to fuel the demand for their services in the past decade.

While the premise of government policies is beneficial, the actual implementation of the policies may meet some resistance due to diverging goals for the central government and housing developers. While the central government wants to solve the lower-end housing supply problem, the housing developers' compensation is linked to the monetary value of their projects. In other words, building lower-end housing means lower income for construction companies and housing contractors. People who directly benefit from building high-price property may not be willing to take low-end housing projects.

Various government agencies and officials have played a major role in developing commercial real estate and it is not in their best interest to see major market corrections. Some support of this view is provided in Wu et al[11]. They find that much of the increase in housing prices is occurring in land values. Using land auctions data from Beijing, they also find SOEs controlled by the central government paid 27% more than other bidders for an otherwise equivalent land parcel. Since many government officials have a lot to lose following a crash in the real estate markets, it is argued that the new measures, including the proposed property taxes, will not be effectively enforced; such belief can also explain why speculative capital continues to pour into the real estate markets.

Despite central government efforts to stabilize real estate prices, there is another major force acting against the central government – the provincial and local governments. This may first seem contradictory to the political landscape of China where the central government rules the local governments, but becomes clear when one considers the incentives for each. Every year, provincial governments have to submit budgets to the central government planning the public expenses. For wealthier coastal provinces such as Guangdong, the provincial government has plenty of money from taxes to carry out necessary spending. However, for relatively poor provinces in central and western China, annual budgets can be a headache due to lower tax revenues. Unlike their American counterparts, Chinese provincial and local governments cannot

[11] Wu, Jing, Joseph Gyourko, and Yongsheng Deng, (2010). "Evaluating Conditions in Major Chinese Housing Markets", Working Paper, University of Pennsylvania.

issue their own debt. Since land is publically owned, one key way for these provinces to generate more revenue is through leasing out the land for private constructions. Similarly, local governments also lease land in similar manners. As the demand for land increases, the price of land increases as well. Of course, the demand for land rises as the real estate prices increase and increasingly many developers fight over limited land. This creates a vicious cycle: The rising prices of the land leads to higher real estate prices, which in turn lead to higher land values. The provincial and local governments benefit from all of this. More expensive lands means the provincial and local governments can earn higher revenues. This creates conflicting incentives between the Chinese central government and provincial governments: Central government wish to stabilize real estate prices, but provincial and local governments want real estate prices to keep rising. Perhaps then it is no surprise that many central government policies to control real estate prices have been met with resistance at lower levels.

Even if Chinese government policies did not meet counter-acting forces, they may produce mixed effects for the real estate market. Government intervention of the real estate market undermines the natural market mechanisms in the market. The Chinese government seems to have forgotten that the primary reason for the success of the Chinese economic reforms that have occurred in the past thirty years were to allow for a more competitive environment and the existence of self-adjusting markets, instead of relying on central-planning. The success of the Chinese economic reform in those years lies in the elimination of government intervention, such as the case of Wenzhou, where the region's private economy allowed the region to grow dramatically faster than under central governance. Government intervention caused the prices in the real estate market to be stiff, not able to adjust according to market mechanisms.

There are important differences between the high prices in the Chinese real estate market and the high prices resulted from a bubble in the real estate market in the United States. In the United States, the real estate bubble was caused by homeowner speculation, but more importantly caused by changes in lending practices. Businesses are driven by profits, and logically attempted to circumvent the existing rules and regulations in an effort to maximize profits. Lending institutions traditionally originated mortgage loans to the borrower and retained the credit default risk. This traditional model has given way to "originate-to-distribute" models, in which banks sell off the mortgages in tranches and distribute the credit risk to investors who purchase these mortgage tranches. "Originate-to-distribute" models adopted by lending institutions changed the incentives of banks. Instead of carefully screening the borrowers' credit histories and backgrounds, banks would make loans to those with bad credit history since they could later transfer the risk to investors. As a result, more loans than warranted were given out in a period of economic prosperity. An increase in the number of approved loans lead to an increase in the demand for real estate, which lead to higher prices in the real estate market. In China, there is too much government regulation attempting to control real estate prices. The real estate market then cannot self-adjust to the appropriate market price. Since the rapid increase in real estate prices, the overall demand for housing has declined since many middle to lower-class citizens simply cannot afford to purchase real estate in many areas. This decline in demand should lower the overall prices in the real estate market based on the laws of supply and demand. However, the prices do not seem to fall. Perhaps this is because there are also many investors who rush into the real estate market as the prices increase, or perhaps the real estate prices may be kept up due to the fact the market prices cannot adjust according to market conditions.

There is also a major problem with the government's initiative to increase supply of low-end housing: There is no written definition of what type of housing categorizes as low-end affordable housing. Perhaps this is because it will be a difficult task categorizing specifically what type of housing would be considered low-end. China is a diverse country with many varieties of smaller-scale real estate activities, and it is difficult if not impossible to quantitatively determine the price cutoff for "low-end" housing. However, the lack of definition directly affects the effectiveness of the government policies, and confuses the consumers' understanding and expectations from the real estate market. A lack of definitions also undermines market mechanisms by crowding out private developers since many projects are carried out by the government, and private developers may be reluctant to take on low-end housing projects if there is no government subsidy. This influences the prices set by the market. Also, the capital allocated towards lower-end housing may not be the best of that capital – the efficiently of investments in the real estate market is compromised; the return on investment on the money invested in lower-end housing will obviously be lower than if the capital were used on investments that yield higher returns. Lastly, with any government initiatives intervening with the market, it is difficult for the central government to estimate how much of this lower-end housing is actually needed.

The central government must remove any policies that restrict investments or hold back consumption in order to allow market mechanisms to operate properly. The Chinese real estate

market has too much government interference. Even before the recent global financial crisis, the Chinese real estate market was already very problematic.

In 2008 the real estate prices slumped as a result of the global financial crisis. This was the biggest major slump since 1998 Asian crisis. Faced with the economic downturn, Chinese government decided to pursue active fiscal policies and relatively loose monetary policy to counter the downturn. However, the attitude towards the real estate market is ambivalent, since the real estate sector pulls investments, increases domestic demand, and generally allows the Chinese market to continue to grow. On one hand, the Chinese government wishes for the real estate market to recover from the slump as quickly as possible through stimulus plans. On the other hand, the government is also worried about the continued increase in real estate prices if policies over-stimulates, leading to ever-higher real estate prices. Consumers who purchase homes for practical purposes want the downward real estate price trend to continue for housing to become more affordable.

2008 was a dangerous year for China and its real estate market. Demand spilling over from 2007 lead to a great many construction projects in 2008, but many of those projects which started construction did not proceed according to plan; they either stopped completely or postponed due to the global financial crisis. In 2007 China sold 770 million square meters of commercial space, in 2009 it sold about 20% less. Without capital to invest, there will be buildings that will be started but never will be finished.

The slump in real estate prices in 2008 also meant financial institutions were hurt. In a financial crisis, if companies are short on cash and cannot lower their prices – lowering prices would lead to losses that would hurt the companies further – they must surrender their assets, often in the form of property, to the bank. Since the real estate values declined, banks are worse off auctioning off the property, and the government would collection less taxes as a result.

In the end, the Chinese government did resort to a generous stimulus package valued at 4 trillion RMB, Of the 4 trillion RMB, 2.7 trillion RMB was poured into nationwide real estate development[12]. 900 million RMB was used to invest in affordable, lower-end housing. This not only ensures increased opportunities for people who demand practical housing, but also stimulate domestic consumption by creating new demand (if people can't afford housing, they don't buy it). It is part of China's "Expand domestic consumption, increase investments" policy. However, government stimulus package is only good for the economy in the short term when the economy needs an immediate lift. In the long term, private investment and consumptions are what lead to growth. This large stimulus package may have been more than what China needed.

Summary and Concluding Remarks

China's economy has grown at amazing speeds for well over a decade. Given the rising status of the Chinese economy and the relative stagnant growths of the United States, among other developed countries, Chinese assets have become attractive investments for foreign

[12] "China Property Stimulus Plan Targets Low-Income Housing, Ownership." *Window of China*. Xinhua, 17 Dec. 2008. Web. 27 Oct. 2010. <http://news.xinhuanet.com/english/2008-12/17/content_10519111.htm>.

investors. There is some evidence of speculative foreign capital flowing into China which may have helped fuel the accelerated rising prices in the real estate market. Although like many other markets, the Chinese real estate market was affected by the global financial crisis, the resilience of the Chinese economy has convinced many investors that the Chinese real estate market remains to hold attractive investment opportunities. In the foreseeable future, it seems that foreign investments in the Chinese real estate market will not slow down.

As mentioned earlier, although the real estate prices in major cities such as Beijing, Shanghai, and Shenzhen are growing much faster than the disposable annual income, the overall national real estate prices growth and the disposable income growth do not look divergent. The real estate prices in the major cities are growing more rapidly than the national average, this may be due to large amounts of foreign investment and a disproportionally higher percentage of upper-class citizens than the national average. If the supply and demand in these cities are balanced, then the rapid growth in real estate prices could be justified. Otherwise, the rapid real estate price increase could mostly be attributed to speculative capital.

Finally, what does the future hold for the Chinese real estate market? Above all, the continuing development of the Chinese economy rests on economic stability. The continual rise of the Chinese real estate prices will cause increasingly many economic distortions, such as the problem lower-class citizen face when they cannot afford basic housing. However, a sudden collapse in the real estate market is surely disastrous for the Chinese economy. Many sectors would be negatively affected; many jobs would be lost. Investors would lose confidence and

withdraw capital. The Chinese government must seek out the delicate balance between fully supporting the real estate market and imposing severe restrictions to keep prices down, which may lead to a crash in the real estate market. Perhaps the best approach is to implicitly back the real estate market as to not let it collapse in the case of a crisis, but at the same time taking precautions in controlling the rapid increases in price to minimize the economic distortions.

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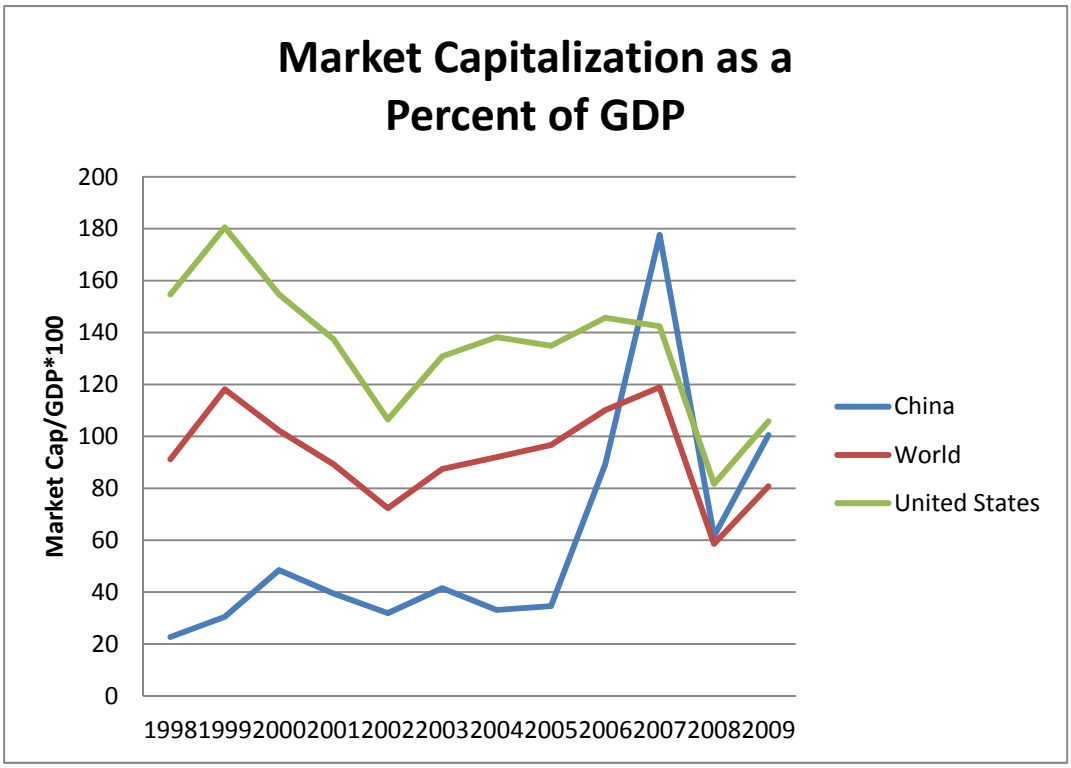

Figure 1 (Source: World Bank)

Year	China	World	US
1998	22.7	91.2	154.7
1999	30.5	118.1	180.5
2000	48.5	102.2	154.7
2001	39.5	89.3	137.5
2002	31.9	72.3	106.5
2003	41.5	87.4	130.8
2004	33.1	92	138.2
2005	34.6	96.7	134.9
2006	89.3	110.1	145.7
2007	177.6	118.9	142.4
2008	61.6	58.6	81.7
2009	100.5	80.8	105.8

Table 1. Market capitalization as percentage of GDP

(Source: World Bank)

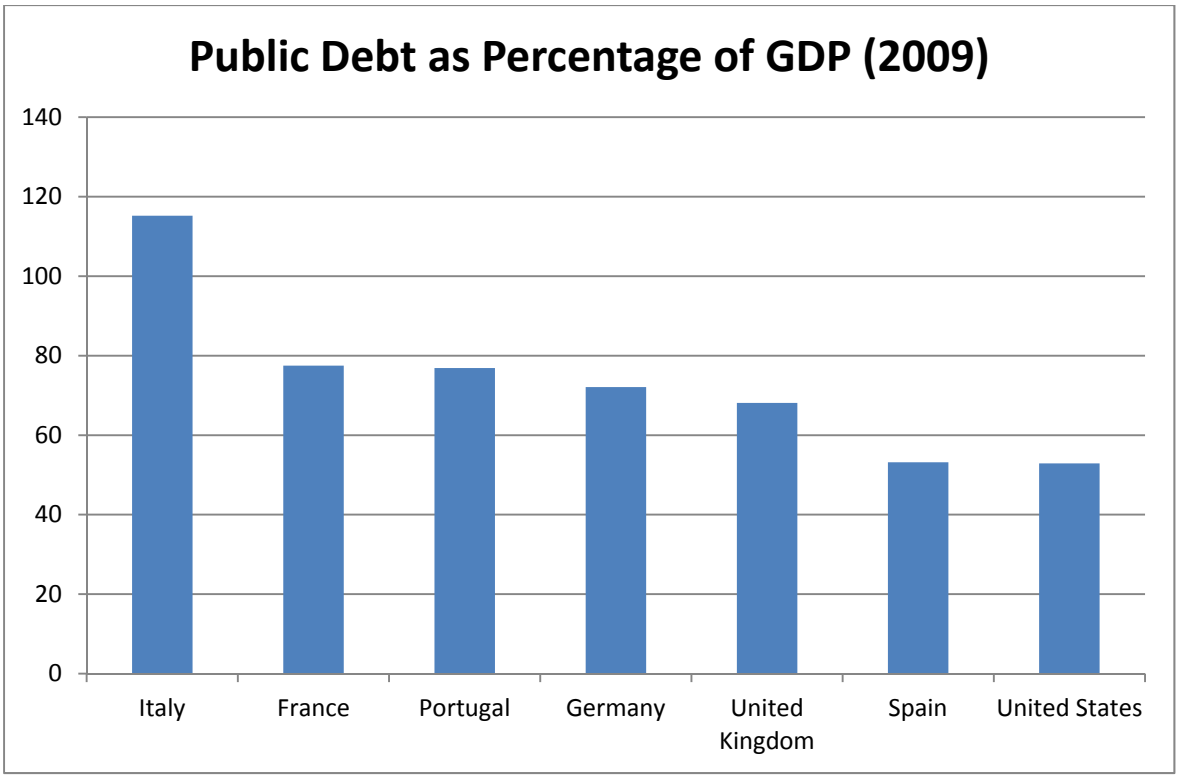

Figure 3

(Source: CIA World Factbook)

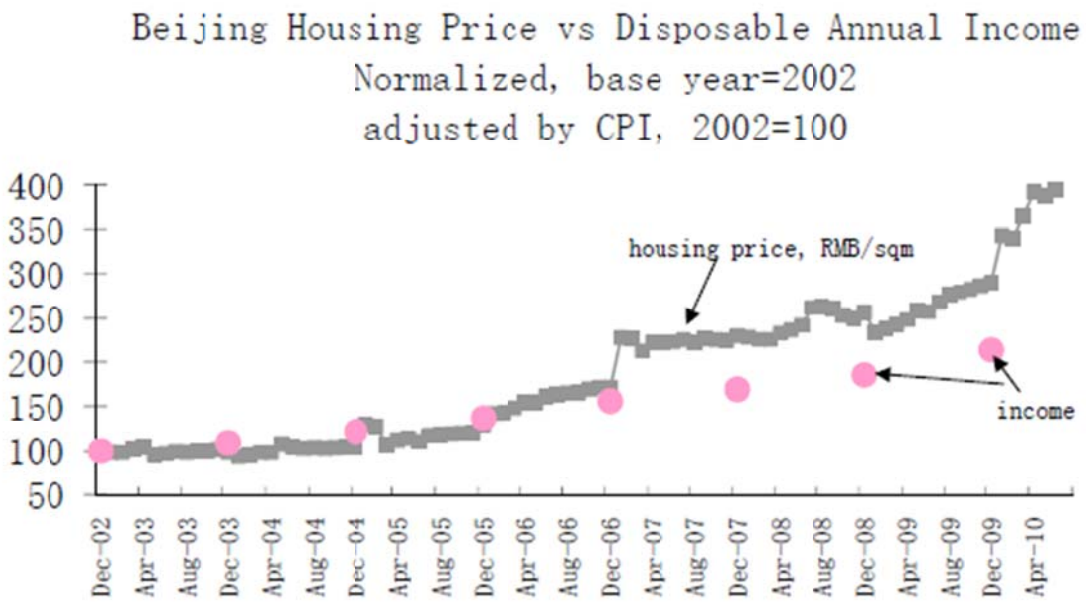

Figure 4

(Source: Allen et al (2010). "China's Financial System: Opportunities and Challenges")

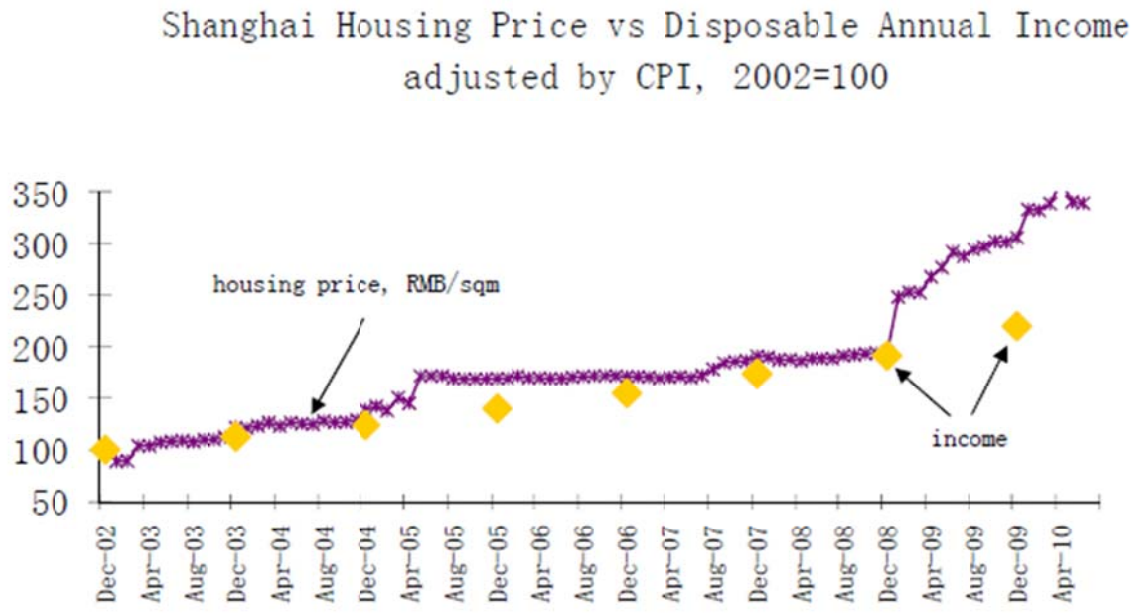

Figure 5

(Source: Allen et al (2010). “China’s Financial System: Opportunities and Challenges”)

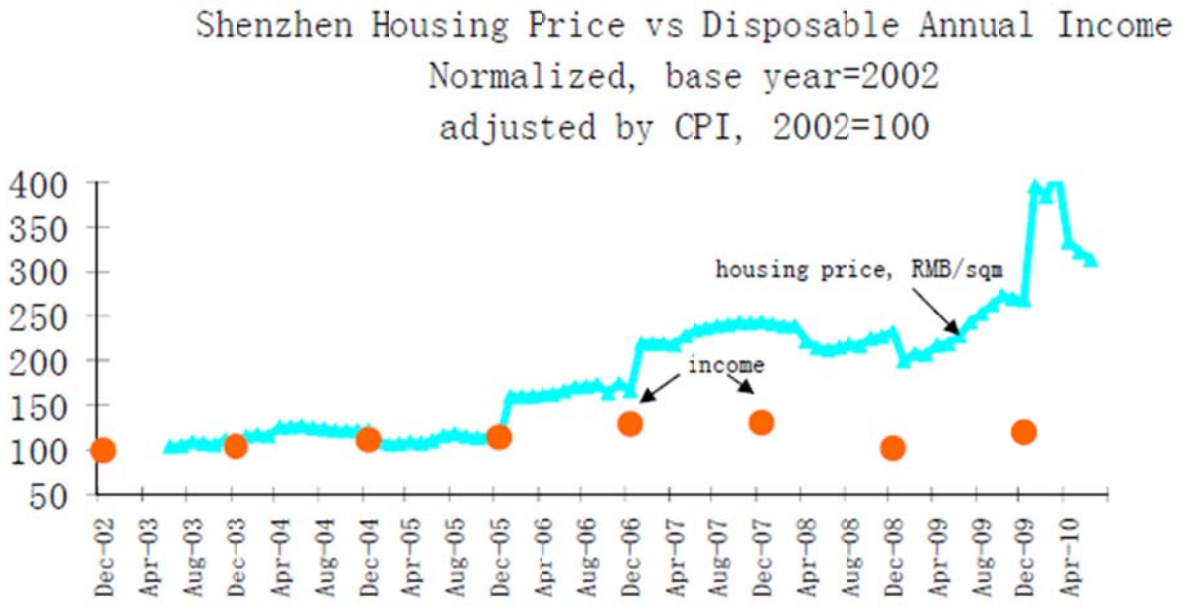

Figure 6

(Source: Allen et al (2010). "China's Financial System: Opportunities and Challenges")

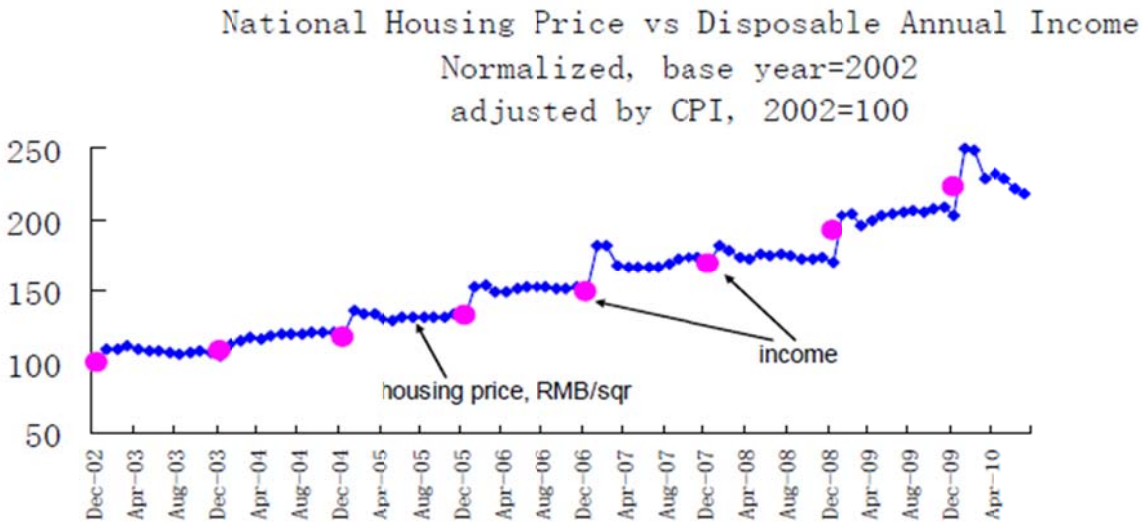

Figure 7

(Source: Allen et al (2010). "China's Financial System: Opportunities and Challenges")