

# **How Significant is Housing Risk in China?**

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**IMF Global Housing Watch**

Paper presented at the International Symposium on Housing and Financial Stability in China.  
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## The Fallout from a Slowing Economy in China Is Broadly Viewed as a Key Risk to the Global Economic Outlook

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- IMF Director Lagarde recently cited interest rate hikes in the US and slower growth in China as leading to higher risk of economic vulnerability in 2016.<sup>1</sup>
- As China seeks to shift its growth strategy from export and investment-led to a more sustainable orientation to domestic demand, two sources of risk are often cited as potential sources of turbulence: corporate defaults and weakness in the housing market.<sup>2</sup>

## The Recent Strong Surge in House Prices in China has Stirred Fears of a Bursting Bubble with the Potential for Economic Turmoil Similar to what Occurred in the US in the Last Decade

- A key challenge facing analysts looking at the Chinese housing market has been a lack of reliable data. Recently, researchers have gained access to new data sources, allowing for an improved assessment of market conditions and spillover risks to the global economy.
- Deng, Gyourko and Wu<sup>3</sup> (DGW) utilize a constant quality price series based on sales of long-term leases to private developers in 35 cities over the period 2004-2014.
- Fang, Gu, Xiong and Zhou<sup>4</sup> (FGXZ) utilize a comprehensive data set of mortgage loans from a commercial bank to produce housing price indices for 120 cities in conjunction with income data over the period 2003-2013.

## How does China's Recent History Compare to that of Other Countries that Experienced Housing Booms?

- Both papers document a tremendous boom in housing over the past decade. WGD's price data reveal average annual growth in land prices of over 15% in real terms. However there is considerable heterogeneity across geographies, with prices in two cities near 7% per annum while Beijing's prices rose 27.5% per annum over that period. The latter implies aggregate growth of over 1000%! FGXZ's data shows average real price gains of 13.1% in the first-tier cities, with growth in second-tier cities at 10.5% and third-tier cities at 7.9%
- These gains dwarf the mere doubling in house prices<sup>5</sup> that occurred in the US between 2000-2007 but is somewhat less pronounced than the run-up Japan experienced in the 25 years prior to 1990.

## The Geographic Backdrop is Key

- WGD's analysis shows that the dramatic price growth in many of the first-tier cities (e.g., Beijing, Shanghai and Shenzhen) has occurred in an environment of persistent supply shortages. However, FGXZ's study demonstrates that prices have grown considerably faster than incomes in these cities.
- Conversely, in many smaller cities, excess supply is weighing on markets, although prices are not particularly high compared to incomes (based on the historical experience).

## Are China's Housing Markets Experiencing a Bubble I?

- The previous analysis demonstrates that the answer to this question depends crucially on the specific geography under consideration. In the largest cities, prices have risen faster than incomes, but in an environment of persistent excess demand. In the smaller cities price/income trends appear more balanced but in some areas a worrying situation of excess supply has developed.
- Robert Shiller's famous work "Irrational Exuberance"<sup>6</sup> spelled out how bubbles are primarily a process of unrealistic expectation formation. Foote, Gerardi and Willen document this process in the case of the US housing bubble.<sup>7</sup>

# Are China's Housing Markets Experiencing a Bubble II?

- While unrealistic house price expectations may be playing a role in China's home-price boom, another factor is income expectations. China's blockbuster growth prior to the financial crisis may have led households to believe that this trend would continue indefinitely. FGXZ document that the price/income ratio in most cities hovers around 8, more than twice the typical level in the US, and in first-tier cities has at times reached to over 10. In this regard, China's experience seems more in line with Japan's prior to 1990.
- Given that the latest 5-year plan calls for growth of 6.5% per year, compared to double-digit growth before the crisis, such valuations may be difficult to sustain as the economy shifts to a more sustainable domestic-demand model of development.
- It is always difficult to identify when an asset price-run up constitutes a bubble until it actually bursts. So even though there are various metrics that indicate the potential for overvaluation in various markets I cannot say that this indicates the presence of a bubble. However I also cannot say that it does not.

## How Bad Would the Fallout Be From a Decline in Home Prices in China?

- Unrealistic expectations appear to be a common theme in the run-up in house prices in the US a decade ago and China more recently, a key difference between the two experiences is the degree of equity held by borrowers. In the US, financial “innovation” resulted in the ability of mortgage applicants to bring little or no money to the transaction while in China the normal level of down payment is 30%. Hence a modest decline in prices in China could be relatively easy to absorb.
- Another difference is the system of housing finance. In the US, the private securitization market generated a web of structured products such as CDOs that were distributed across a wide swath of investors. The resulting complexity made dealing with the sharp drop in prices extremely challenging as authorities often did not know where systemically-important exposures were located (e.g. AIG). The Chinese mortgage market is primarily a bank market and while a sufficiently large price drop would be problematic, authorities there can more easily see where risks are concentrated than was the case in the US.

## Can Chinese Authorities Prevent a Hard Landing?

- Given the differences in market structure between China and the US, the situation in China is more amenable to policy measures to support the housing market than was the case in the US. Nonetheless, it is good to remember that the Federal Reserve and US Treasury are very powerful institutions with enormous resources at their disposal but ultimately they were unable to prevent a crisis. The scenario whereby Chinese authorities will be able to forestall a hard landing presupposes that China will succeed where the US failed.
- The limit of policies to reduce market volatility can be seen in the difficulties that authorities have had in their attempts to stabilize the Chinese stock market.
- I don't believe that a hard landing is inevitable, but policymakers and investors should not become complacent.

## The Chinese “New Normal”

- Since the financial crisis, the most salient feature of the recoveries among the G-7 countries has been sluggish growth and low inflation. This has given rise to an important new debate (or the revival of an old one dating back to the Great Depression) which was sparked by Larry Summers under the guise of “secular stagnation”. A tremendous literature has sprung up around this idea<sup>8</sup>, but in essence a variety of factors, including slower growth in working-age populations, lagging productivity growth and weakening effectiveness of monetary policy are conspiring to place economies into a slow-growth equilibrium.
- Many of these characteristics can be seen in China. In particular, the key one-year deposit rate was cut by 25 basis points to 1.50% last October, not far from the zero lower bound. Hence I believe that while China may be able to avoid a hard landing, the problem may become persistent shortfalls in reaching growth targets, which can best be characterized as “secular stagnation with Chinese characteristics”.

## Appendix: Notes and References

<sup>1</sup> See <http://www.reuters.com/article/imf-lagarde-idUSKBN0UD0JI20151230>

<sup>2</sup> See <http://www.bloomberg.com/news/articles/2015-12-28/china-fault-lines-where-economic-turbulence-could-start-in-2016>

<sup>3</sup> Jing Wu, Joseph Gyourko and Yongheng Deng, “Evaluating the Risk of Chinese Housing Markets: What We Know and What We Need to know”, NBER Working Paper 21346, July, 2015

<sup>4</sup> Hanming Fang, Quanlin Gu, Wei Xiong and Li-An Zhou, “Demystifying the Chinese Housing Boom”, NBER Working Paper 21112, April 2015

<sup>5</sup> Based on the 20-City Case-Shiller Index

<sup>6</sup> Shiller, Robert, *Irrational Exuberance*, 2000 Princeton University Press

<sup>7</sup> Christopher L. Foote, Kristopher S. Gerardi, and Paul S. Willen, “Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis”, Federal Reserve Bank of Boston Public Policy Paper No 12-2, July 20, 2012

<sup>8</sup>For Summers on secular stagnation see <http://larrysummers.com/secular-stagnation/>. For Ben Bernanke see <http://www.brookings.edu/blogs/ben-bernanke/posts/2015/03/31-why-interest-rates-low-secular-stagnation>.