GW&K
INVESTMENT MANAGEMENT

GLOBAL PERSPECTIVES

Is China's Housing Market a Bubble?

NOVEMBER 2021

William P. Sterling, Ph.D.
Global Strategist

Highlights

- The likely bankruptcy of China's property giant Evergrande calls into focus China's notable dependence on its real estate sector to generate jobs and growth.
- Although it seems clear that China will need to reduce its over-reliance on property investment for future growth, it is not at all clear that China's housing market is a bubble waiting to pop. China's housing market does not appear to be massively overpriced or excessively levered as has been the case in other countries with housing bubbles.

Evergrande Highlights China's Real Estate Dependence

As China's largest property developer faces bankruptcy, concerns have risen over how much collateral damage its problems could create for China's economy. It is widely assumed that the troubled property giant, China Evergrande Group, is "too big to fail," with over $300 billion in liabilities. Crucially, those liabilities include a staggering 1.4 million unfinished housing units owed to its customers, representing roughly $200 billion in pre-sale liabilities.

Against that backdrop, many investors appear to have concluded that China's authorities will protect key stakeholders, with favored groups including the firm's customers, suppliers, and employees – but probably not equity owners and corporate debt holders. Its bankers may be in a grey area, forced to risk their own balance sheets for the greater good. That may happen as they are called to help finance Evergrande's legacy activities. In the meantime, the authorities will probably strong arm local governments and state-owned enterprises to take over many of its projects and financial obligations.

Even if there is no disruptive "Lehman moment" resulting from Evergrande's potential restructuring, questions are being raised about whether this episode will have broader implications for China's economic growth model. Could it be akin to the collapse of Japan's real-estate fueled "bubble economy" in the early 1990s, which ushered in decades of subpar Japanese economic performance? We will use a question and answer format to address this and a number of related questions.

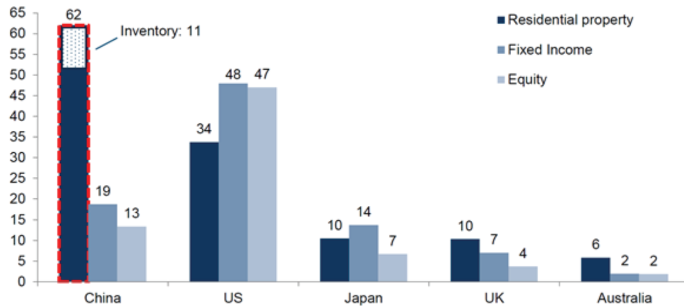
For global investors, China's property market bears close watching because it is arguably the world's most important sector. Not only does construction help drive more than a quarter of China's GDP, it accounts for half or more of the world's diggers, cranes, and cement mixers. Moreover, recent research from Goldman Sachs argues that China's property market is the world's largest asset class with a market value of more than $60 trillion **(Chart 1).**[1]

[1] Allison Nathan, "What's Top of Mind in Macro Research," *Goldman Sachs Economic Research,* September 29, 2021.

GW&K Investment Management
Boston, Massachusetts
Winter Park, Florida
New York, New York

617.236.8900
www.gwkinvest.com

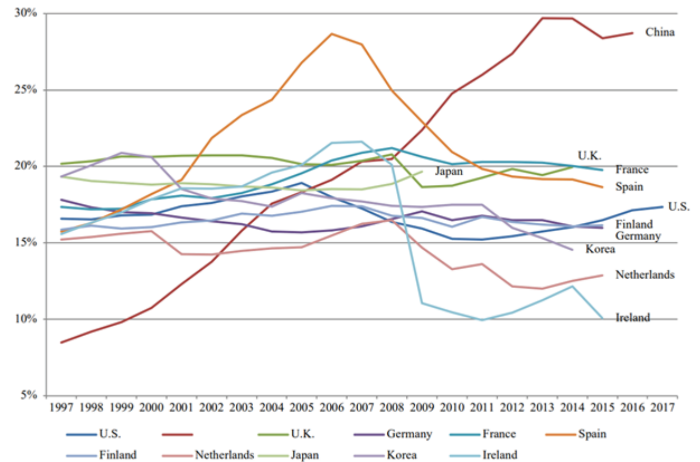
Chart 1: The Chinese Property Market is the Largest Asset Class in the World
Total value, U.S. $T



Source: WFE, CEIC, Japan Cabinet Office, Halifax, Goldman Sachs Global Investment Research

With a market value of more than $60 trillion, China's property market represents the largest asset class in the world and is a key driver of the nation's giant construction industry.

Chart 2: Real Estate Related Activity as a Share of GDP, 1997-2017



Source: Rogoff and Yang (2020) and KLEMS.

A broad measure of China's real estate related economic activity shows it peaking at around 29% of GDP in 2013-14, and remaining much higher than in many other nations with disruptive housing bubbles.

To signal our key conclusions from the onset, we think China will almost certainly need to curb its reliance on real estate investment in coming years. But keep in mind that it already has been doing so for nearly eight years. There are strong reasons to believe that China is not facing a systemic property crisis akin to either the collapse of Japan's bubble economy in the early 1990s or to America's subprime lending crisis in 2007. We expect policymakers to achieve a controlled deflation of the sector in coming years, which is essentially a continuation of a trend seen since 2013.

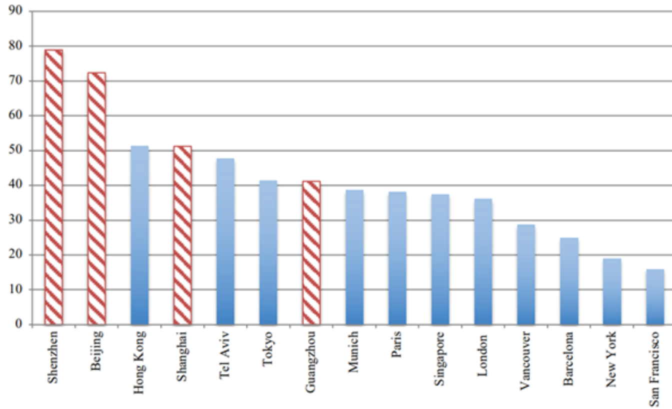
Hasn't China been overinvesting in property development for years?

The short answer is yes. As Harvard economist Ken Rogoff recently documented, China has become notably dependent on the real estate sector to generate jobs and growth. His data suggest that real estate and related services recently accounted for an astonishing 29% of China's GDP **(Chart 2)**, using a very broad definition of "related services."[2] That is even larger than the property sector's share of the Spanish and Irish economies at their pre-2008 peak levels (28% and 22%, respectively) and much larger than America's peak level of 18% in 2005.

Judging from the painful subsequent experience of those economies – and the huge knock-on effects of real estate investment on other sectors – Rogoff concludes that "a significant slowdown in China's real estate sector could easily cut 5-10% from cumulative GDP growth over the ensuing few years." He has also applied the "bubble" label to China's housing market, pointing to extremely high home prices in key Chinese cities.[3] Specifically, based on pre-pandemic data, Rogoff's data shows that home price-to-rent ratios in so-called Tier 1 cities like Beijing, Shanghai, Shenzhen, and Guangzhou exceed or are comparable to those in any of the world's most expensive cities **(Chart 3)**. Notably, price-to-rent ratios in Beijing, Shanghai and Shenzhen exceed 40x, compared to 22x in London and 12x in New York.

[2] Kenneth Rogoff, "Can China's outsized real estate sector amplify a Delta-induced slowdown," VoxEU.org, September 21, 2021.
[3] Kenneth Rogoff and Yuanchen Yang, Peak China Housing, NBER Working Paper 27697, August 2020.

Chart 3: Home Price-to-Rent Ratios in Major World Cities (2018)



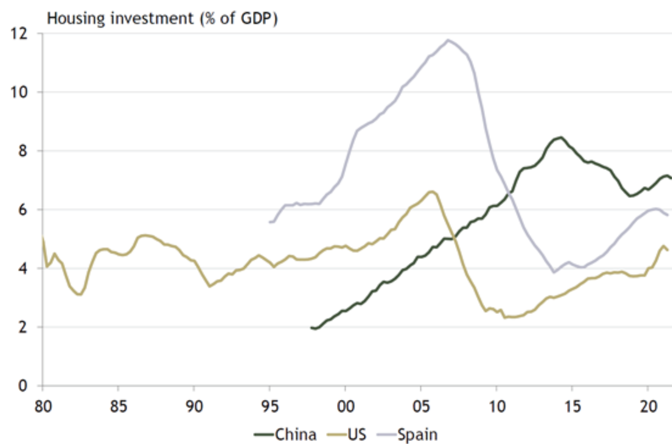
Source: Rogoff and Yang (2020) and KLEMS.

Home price-to rent ratios in so-called "Tier 1" cities like Beijing, Shanghai, Shenzhen, and Guangzhou exceed or are comparable to those in any of the world's most expensive cities.

It should be noted that Rogoff's data represents the broadest measure of the role of real estate investment in the economy. As such, it may exaggerate the scale of overinvestment. That's because it includes a wide variety of indirect impacts of real estate investment on the economy such as the induced demand for auto purchases when households purchase homes in the suburbs.

A recent report by Absolute Strategy Research estimated China's share of national income spent on housing at about 7% of GDP.[4] Even with this narrow definition, that is still a high share of national income to spend on housing. It exceeds that spent by the U.S. before its bubble burst in 2007, but is quite a bit lower than what was spent by Spain in 2007 **(Chart 4)**.

Chart 4: Even Narrowly Defined, China's Housing Investment is Still Very High



Source: ASR Ltd. / Refinitix Datastream

Excluding land purchases and multiplier effects on related industries, a narrow definition shows China's residential housing investment currently at a very high 7% of GDP, but well below the 2013-14 peak.

So is China a "bubble economy," like Japan in the early 1990s?

Probably not – because there are major differences between property market dynamics in China versus other "property bubble" economies. These differences suggest that the risks of a disruptive collapse are lower than commonly perceived. First, China's nationwide home prices are fundamentally well supported because they have generally moved in line with or even fallen relative to urban incomes over the last two decades. Second, banks have not permitted high leverage to drive up home prices since strict down payments of 30% of purchase price have generally been required. Third, residential housing construction has been declining as a share of the economy since 2013 as authorities have selectively and episodically curbed credit to the sector.

Thus, while we would expect the authorities to continue to curb the economy's dependence on real estate investment in coming years, the risks of a disruptive bubble collapse would be much higher if residential property construction as a percent of GDP was currently soaring – and accompanied by explosive growth in home prices and mortgage debt.

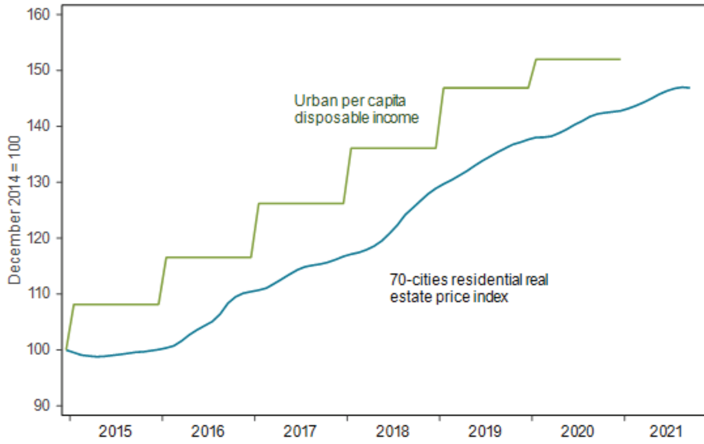
Consider that in Japan from 1985 through 1991 property prices rose by 5x in a relatively slow-growth economy, fueled by extremely high leverage that left the banking system highly exposed to even minor declines in real estate prices.[5] When the Bank of Japan decided to pop the bubble in the early 1990s, conditions were ripe for a huge decline in housing investment and major problems in the banking system.

Or consider the U.S. in the 2000 through 2007 period when property prices doubled, fueled also by extremely high leverage and a relatively untested securitization process for mortgage debt. Housing investment as a percent of GDP rose to a level not seen for many decades, leaving the financial system and the economy highly vulnerable to a change in sentiment.

In contrast, home prices in China have risen a bit less than 50% in the last seven years. That has actually lagged the growth in per capita disposable income over that period, suggesting that China's home prices have been well supported by fundamentals **(Chart 5)**. Moreover, economist Jonathan Anderson of the Emerging Advisors Group has looked at China's home prices versus incomes since 2001.[6] Since then, home prices have seen a cumulative increase of an impressive 390%. But urban incomes have risen nearly 600% over the same period. Using a variety of different data sources, he concludes that home prices have been falling on average relative to urban incomes over the last two decades.

4 Adam Wolfe, "The end of China's property bubble," Absolute Strategy Research, November 2, 2021.
5 Koyo Ozeki, "The Chinese Real Estate Market: A Comparison with Japan's Bubble," PIMCO, December 2009.
6 Jonathan Anderson, "How to Think About China (2021 Edition), Part 4, Emerging Advisors Group, September 6, 2021.

Chart 5: Where's the Bubble? China's Home Prices vs Disposable Income

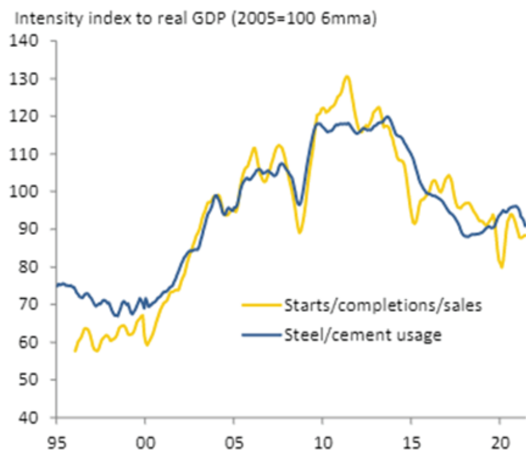


Source: GW&K Investment Management and Macrobond

China's home prices have lagged per capital disposable income growth since 2014, and over the last several decades as well. This suggests there is no asset price bubble overall in China's housing market.

In addition, using granular housing data, Anderson documents that the Chinese property sector is already on the way down, and has been since 2013. This can be seen from an "intensity index" which compares an average of housing sales, new starts and completions, depicted in index level terms relative to real GDP **(Chart 6)**. By this measure, the housing intensity of GDP has fallen by about one-third from its peak level in 2013, while experiencing several up and down cycles around the persistent downtrend. Not surprisingly, a related measure of housing-related resource use – the GDP intensity of steel and cement usage – has been on virtually an identical downtrend.

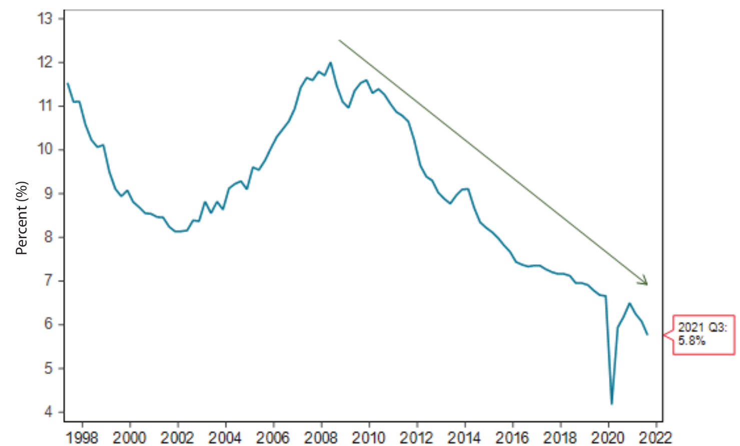
Chart 6: China's Housing Activity and Steel/Cement Usage Has Declined Notably as a Percent of GDP Since 2013



Source: Jonathan Anderson, Emerging Advisors Group (September 2020) and CEIC

In short, China's authorities have long been aware of the risk of a disruptive Japanese-style real estate bubble collapse and have been working to wean the economy from its real estate dependence for nearly eight years. Their efforts have undoubtedly contributed to a downshifting of the nation's long-term growth rate since 2008, but not in a disruptive way associated with collapsing bubbles **(Chart 7)**.

Chart 7: A Downshift in China's Long-Term Growth Since 2008: Annualized 5-year Growth in Real GDP (%)



Source: GW&K Investment Management and Macrobond

China's 5-year annualized real GDP growth rate has fallen by almost 50% since 2008. Much of the slowdown since 2013 can be attributed to reduced reliance on housing investment to drive growth.

In a sense, Rogoff's forecast that "a significant slowdown in China's real estate sector could cut 5-10% off of cumulative GDP growth in the ensuing few years" has already come true. For example, in mid-2013 the International Monetary Fund forecast that China's economy would grow by 50% cumulatively from 2013 through 2018 (8.4% annualized). In fact, it grew only 40% cumulatively over that period (7.0% annualized) and the slowdown undoubtedly owed much to the relatively controlled deflation of real estate investment relative to GDP that occurred over that period.

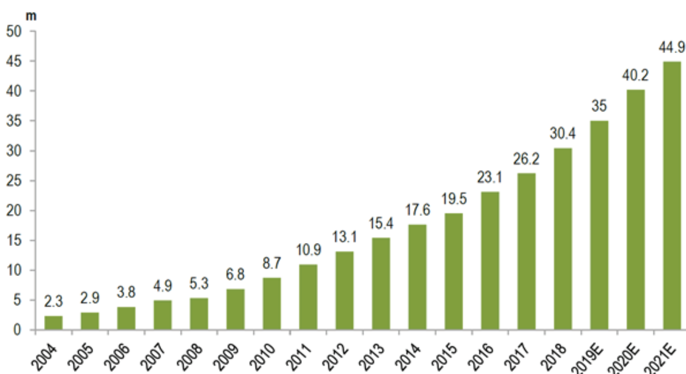
But what about the extremely high home prices in Tier 1 cities?

Even if nationwide home price indexes have lagged income growth for many years, there are still concerns that prices are excessive in Tier 1 cities. For example, as shown in Chart 3, the home price-to-income ratios in cities like Beijing and Shanghai far exceed those in other top cities around the world. And in those cities, prices are up nearly tenfold since 2001 and have indeed outstripped the sixfold growth in income since then.

The most important thing to keep in mind about China's Tier 1 cities is that they have been focal points for the explosion of wealth and income that have accompanied the nation's remarkable development in the past few decades, and for "new economy" industries like information technology, e-commerce, and communication services that have brought prosperity to millions.

According to research from UBS, the number of high end households has risen nearly twentyfold since 2004 – from 2.3 million then to 44.9 million in 2021 **(Chart 8)**. Thus, the home price-to-income ratios in Tier 1 cities may suffer by comparing home prices to average or median incomes. The more relevant comparison for such cities may be home prices to high-income household incomes. Presumably in cities where a rapidly growing segment of "super earners" may have incomes five times the average, home prices trends will disproportionately be driven by income growth of the super earners.

Chart 8: No. of China's High-Income Households



Source: UBS, January 2020

As China's New Economy has prospered, high-income households have grown by nearly twentyfold since 2004. That has helped turbo-charge home price growth in China's tech-heavy Tier 1 cities.

The impact of this income inequality has become a political issue behind China's recent "common prosperity" drive, much as similar home price issues have become political flashpoints in U.S. tech-driven cities like San Francisco or Seattle. That said, if the politics are fraught, the economics are basic: As a declining trend in new construction collides with extremely rapid growth in high-income households, it results in the very high home prices seen in China's Tier 1 cities.

It is also worth keeping in mind how big China's economy is. For example, Beijing and Shanghai account for only 2.5% of overall residential construction by area and roughly 6% by value according to Emerging Advisors Group. So they can hardly be seen to be representative of nationwide trends.

And what about China's infamous "ghost cities"? And tens of millions of empty flats?

Since the late 2000s and early 2010s, investors have fretted about so-called "ghost cities" like Ordos City in Inner Mongolia where news articles carried pictures of massive developments with empty housing and deserted commercial districts. Numerous stories like this can be found by internet searches for "China ghost cities."

A decade later it turns out that many of these ghost cities are now fully occupied with growing populations and well-functioning private and public services. Moreover, even when they stood vacant a decade ago, they only accounted for a few percent of total property construction. Once again, keep in mind how big China's economy is. That means that wasteful "white elephant" government projects, when they occur, will be breathtaking in scale even if they are not representative of nationwide trends.

The reason there are not many stories of new ghost cities is simple: the bad publicity generated by ghost cities in the past helped prompt the government's deleveraging campaign and related constraints on local governments to fund speculative "white elephant" projects. Hence, the reduced housing intensity of GDP seen since 2013.

If the ghost cities concern represents old news, there is a more recent concern that home prices are at risk from a giant supply of empty flats that were purchased by speculators. These concerns were fueled by a 2017 China Household Finance Survey (CHFS) that covered 40,000 households and estimated that there were over 50 million empty flats – or roughly 22% of the existing urban housing stock.

The 50 million figure has been debunked thoroughly by the Emerging Advisors Group who puts the actual number at closer to 8 or 9 million, which is a less worrisome 4% to 5% of the urban housing stock. The lower number reflects adjustments for newly purchased flats that are still under construction, housing that is occupied by other family members or friends of the owner, vacation properties, and so on.

Data on developer inventories can also help assess whether China's property market is awash in excess supply. The good news from this data is that developer inventories, measured in terms of months of sales, are close to historic lows. For example, a survey across 100 cities by the E-House Restate Research Institute puts current residential inventories at about 9 months of sales, compared to peak levels of more than 20 months in 2012 and again in 2014. Thus, despite current financial strains facing developers, which have been deliberately engineered by government credit constraints, they are not at all jammed up with unsold inventory.

Conclusion: Neither Boom, nor Bust, but a Managed Decline

We think everyone from President Xi Jinping down agrees that China has been investing too much in residential housing – no matter what data items are used to make the argument. Xi himself has pushed the same slogan since 2016, "houses are for living in, not for speculation."

This suggests to us that investment in residential real estate will continue to decline as a share of national income in coming years, just as it has since 2013. Modest cycles of credit easing and tightening seem likely to continue as well, but no prolonged boom looks possible. If anything, the government's recent decision to continue pilot programs to implement property taxes clearly signals its intention to make housing a less attractive savings vehicle over time.

That said, the Wall Street Journal recently reported that President Xi has faced fierce internal resistance to his desire to move more aggressively to implement property taxes in 30 cities. As a result of such resistance, the plan was scaled back to about 10 cities. In a nation where more than 90% of urban families own their homes, the fear of many officials is that widespread and significant property taxes could crush housing prices, cause a retrenchment in consumer spending, and severely harm the overall economy.

Given such concerns, we expect China's policymakers to work hard to engineer a controlled decline of the property sector with an overall objective of maintaining social stability. This means providing substantial liquidity support to the financial system without directly bailing out troubled property developers. It also means ramping up infrastructure investment to put a floor under the demand for construction labor and heavy industrial inputs used by the construction industry.

The challenge for the government will be to maintain a delicate balance: if they provide too much liquidity they could end up encouraging developers to expand their balance sheets again and consumers to ramp up speculative home purchases as occurred in 2016. Alternatively, suppose it becomes clear that the government wants to redirect household savings away from financing unnecessary home building. Investors may then conclude that policymakers want the excess liquidity to be directed toward the stock market.

That could create a welcome respite from this year's bear market, although a speculative mania in Chinese stocks could create a new set of challenges for policymakers. Recall that the last time Chinese investors thought the government had blessed stocks as the favored asset class was in 2014-15. The result was that the domestic A-share index rose by 150% followed by a brutal 45% decline, all in the space of 13 months.

Whatever the stock market implications turn out to be, the managed decline scenario for real estate is supported by the facts we established earlier: home prices have generally been well behaved, mortgage leverage ratios controlled, and the process of a managed decline has been underway for many years. Yes, China has overinvested in housing. But this is not a picture of a runaway asset price bubble about to burst in a disruptive manner.

William P. Sterling, Ph.D.

Global Strategist

Disclosures:
This represents the views and opinions of GW&K Investment Management. It does not constitute investment advice or an offer or solicitation to purchase or sell any security and is subject to change at any time due to changes in market or economic conditions. The comments should not be construed as a recommendation of individual holdings or market sectors, but as an illustration of broader themes. Data is from what we believe to be reliable sources, but it cannot be guaranteed. GW&K assumes no responsibility for the accuracy of the data provided by outside sources.
© GW&K Investment Management, LLC. All rights reserved.