A Paper Bubble:

The "Wealth Effect" and the Chinese Housing Market

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Introduction: Has China Created a Bubble à la the U.S. 2000-2006 Housing Bubble?

Between 2000 and 2006, American home prices surged 130%, with the median sale price of U.S. homes reaching a peak of $224,000 in July, 2006. Over the next six years, the median sale price fell by $72,000, reaching a record low of $152,000 in February, 2012.[1] The dramatic decline in the U.S. housing market is widely-regarded as the primary cause of the 2007/2008 Financial Crisis, which plunged the United States into almost unprecedented financial turmoil and contributed to a global recession that lasted four years.

During this time, global economic growth cratered from 4.1% in 2006 to a low of -2.1% in 2009. However, the People's Republic of China was seemingly immune to the effects of the global recession.[2] Many commentators attributed China's success to its prompt and enormous stimulus package, which boosted the Chinese economy and allowed it to maintain a 9.2% growth rate in 2009, down only 0.4% from 2008, even as the recessionary contraction in foreign

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[1] "United States Home Prices and Values," *Zillow*, accessed February 8, 2015, http://www.zillow.com/home-values/.

[2] "GDP growth (annual %)," *The World Bank*, accessed February 8, 2015, http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/1W-CN?display=graph.

economies reduced demand for Chinese exports. The RMB 4 trillion stimulus package, which was proposed in November, 2008 and approved by the National People's Congress as part of the 2009 budget (up 22.1% from 2008), was equivalent to 14% of China's 2008 Gross Domestic Product. Bank lending — which was used to finance the majority of the stimulus — exploded. Since 2008, banking assets have grown by an astonishing $14 trillion, "equal to the entire size of the U.S. commercial banking sector."[3]

In the ensuing lending binge, enormous amounts of money flowed into the real estate market, further fueling a residential housing rally that had begun in 2000-2005 and in many ways exceeded the period between 2000 and 2006 in the United States. Since 1980, Chinese housing prices have increased almost 700%, compared to 370% in the United States;[4] at its peak, the price-income ratio across China averaged 11:1, more than double that in the United States.[5] In response to limitations implemented by Beijing, housing price growth fell in 2012, only to come roaring back through 2013, reaching a year-on-year increase of 10%. New housing prices slipped into negative growth in May, 2014,[6] with recent data showing record drops in February,

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[3] Xinyuan Wang, "Banks see slower growth in assets," *Global Times*, January 27, 2014, accessed March 1, 2015, http://www.globaltimes.cn/content/839765.shtml.

[4] "Location, location, location," *The Economist*, August 29, 2014, accessed February 12, 2015, http://www.economist.com/blogs/dailychart/2011/11/global-house-prices.

[5] Brett Fawley and Yi Wen, *Economic Synopses: The Great Chinese Housing Boom*, Federal Reserve Bank of Saint Louis, May 3, 2013, accessed February 10, 2015, http://research.stlouisfed.org/publications/es/13/ES-_13_2013-05-03.pdf.

[6] "China Newly Built House Prices YoY Change," *TradingEconomics*, accessed February 09, 2015, http://www.tradingeconomics.com/china/housing-index.

2015.[7] Alarmingly, residential housing price inflation in China, which reached a peak in early 2014, is now falling at a faster rate than in the U.S. prior to the recession.[8] Two years after housing price inflation peaked, the U.S. entered a devastating recession: the median net worth of U.S. families fell 39% from $126,400 in 2007 to $77,300 in 2010;[9] according to the American Enterprise Institute, one-fifth of accumulated household wealth was wiped-out in 2008 alone, the same year Bear Stearns, Lehman Brothers and other financial giants collapsed.[10] The extreme deterioration of American household balance sheets — housing typically represented 75-80% of household assets — not only precipitated the meltdown but also caused the pace of economic recovery to be the slowest since World War II. By 2013, 27% of U.S. mortgages remained underwater, severely constraining consumer spending and economic growth.[11]

With so much at stake, commentators often warn of parallels between the Chinese housing market and 2000-2006 in the U.S., arguing that the Chinese housing market has created an asset price bubble, a phenomenon defined by the Federal Reserve Bank of Chicago as when "the market price of an asset exceeds its price determined by fundamental factors by a significant

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[7] Clare Jim, "China February new home prices fall at fastest rate on record, add risk to growth target," *Reuters*, March 18, 2015, accessed March 29, 2015, http://uk.reuters.com/article/2015/03/18/uk-china-property-prices-idUKKBN0ME05920150318.

[8] "Chart of the Week: Chinese House Prices Falling at a Faster Rate than in the US Pre-Recession," *Thomson Reuters*, February 23, 2015, accessed March 29, 2015, http://alphanow.thomsonreuters.com/2015/02/chart-week-chinese-house-prices-falling-faster-rate-us-pre-recession/?.

[9] Ylan Q. Mui, "Americans saw wealth plummet 40 percent from 2007 to 2010, Federal Reserve says," *The Washington Post*, June 11, 2012, accessed March 29, 2015, http://www.washingtonpost.com/business/economy/fed-americans-wealth-dropped-40-percent/2012/06/11/gJQAlIsCVV_story.html.

[10] John H. Makin, "The global financial crisis and American wealth accumulation: The Fed needs a bubble watch," American Enterprise Institute, August 29, 2013, accessed March 29, 2015, http://www.aei.org/publication/the-global-financial-crisis-and-american-wealth-accumulation-the-fed-needs-a-bubble-watch/.

[11] Craig K. Elwell, *Rebuilding Household Wealth: Implications for Economic Recovery*, Congressional Research Service, Setember 13, 2013, accessed May 6, 2015, https://www.fas.org/sgp/crs/misc/R43228.pdf.

amount for a prolonged period of time."[12] Such commentators warn of an impending "Minsky Moment" — a sudden collapse of asset prices as a result of investors' unsustainably leveraged positions that destroys wealth and results in a recession — à la 2007-2008 in the United States.

However, unlike in the U.S., the dramatic rise in the value of housing in China — although exacerbated by local government policy that for a time ensured that prices could only go up — was supported by strong fundamentals. Consequently, China's housing market does not seem to have generated a particularly excessive bubble, and only a modest correction is likely. Even as prices continue to fall, China is unlikely to experience a "Minsky Moment" because the financing structures and lending practices common in China's residential housing market produce far less risk than those common in the United States. Consequently, the decline in housing values will not destroy massive amounts of Chinese household wealth as it did in the United States; in fact, the enormous growth of "housing wealth" has been largely illusory. A recession is still possible, however it would be as a result of reduced economic activity and increased unemployment, rather than a deterioration of household balance sheets.

I. Local Government Involvement: Exacerbating Land and Housing Price Growth

Experience has made Chinese leaders acutely aware of the danger rampant speculation fueled by ever-rising prices poses to the housing market. On April 6, 1988 the island of Hainan was classified as a Special Economic Zone, resulting in a real estate boom that lasted until 1993 when Premier Zhu Rongji pushed to clamp down on the economy. When the market crashed,

[12] Douglas D. Evanoff, George C. Kaufman and Anastasios G. Malliaris, "Chicago Fed Letter: Asset price bubbles: What are the causes, consequences, and public policy options?," Federal Reserve Bank of Chicago, November, 2012, accessed March 29, 2015, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0CEMQFjAE&url=https%3A%2F%2Fwww.chicagofed.org%2F~%2Fmedia%2Fpublications%2Fchicago-fed-letter%2F2012%2Fcflnovember2012-304-pdf.pdf&ei=J1QYVfrJCYuuogSDwoCoCA&usg=AFQjCNFJc4mxvjGBdROdP7FF9qCQI-jEafQ&bvm=bv.89381419,d.cGU.

Hainan was left with RMB 30 billion of bad debt (equivalent to 10% of the entire national budget) and 8% of nationwide nonperforming property assets. Has the acceleration of housing price growth — a result of monetary policy — been a symptom of a bubble reminiscent of the speculation-induced Hainan Boom and Bust?

In China, the People's Bank of China "formally operates under the leadership of the State Council," making monetary policy an official tool of the Chinese government.[13] Over the past 15 years, Chinese policy — especially at the local level — has supported consistent increases in the price of land, which translates to high housing prices. The relationship between land prices and housing prices is evident by the correlation between the percent change in new home prices and the transaction value of land over time.[14] Chinese policy has fueled rising housing prices because of the strategy pursued by local governments to "unlock" the value of land in China. Beginning in 1994 — shortly after the Hainan Boom and Bust — local governments were restricted from issuing bonds by Zhu Rongji. In 1998, Wuhu Construction Investment Company, a local government financing vehicle, invented a method of leveraging the future value of the land it administered to get around the ban on direct financing. With the backing of the local government, the L.G.F.V. (effectively an off-balance-sheet entity) would go into debt to fund massive investments in public works and development, secured and financed by land grants (a 1988 amendment to the Chinese Constitution allows the government to transfer the right to use and profit from, but not ownership of, land for a certain amount of time). The land would increase in

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[13] Stephen Bell and Hui Feng, *The Rise of the People's Bank of China* (Cambridge: Harvard University Press, 2013), 9.

[14] "China Newly Built House Prices YoY Change" and "National Data," *National Bureau of Statistics of China*, accessed March 12, 2015, http://data.stats.gov.cn/english/easyquery.htm?cn=A01.

value as a result of the development project, creating a "virtuous circle." This strategy was enormously successful and consequently replicated thousands of times across China. In 2013 alone, land leases brought in RMB 3.9 trillion to local government coffers, representing 35% of fiscal revenue.[15] However, this method of funding is increasingly a burden to the local governments. According to the National Audit Office, local governments are indebted to the tune of RMB 17.9 trillion, roughly 30% of Gross Domestic Product. This measure is comprised of RMB 10.9 trillion in debt and the full-value of RMB 2.7 trillion in debt guarantees and RMB 4.3 trillion in implicit debt guarantees (historically, the government has only been on the hook for 19.13% of these contingent liabilities, consequently RMB 17.9 trillion is a high estimate).[16] Moreover, as a result of diminishing returns, investments in public works and infrastructure will be unlikely to continue to produce sufficiently substantive improvements. Tellingly, between 2005 and 2014, the transaction value of land in China experienced wild fluctuations. According to the National Bureau of Statistics of China, the accumulated growth rate of transaction value of land reached a low of -45.7% in February, 2007 and a high of 123.5% in June, 2010,[17] making it a highly volatile and unreliable source of fiscal revenue going forward.

Beijing has recognized the problem of local government financing and has moved to remedy it. In the long-run, the National People's Congress has passed legislation overturning the 1994 ban, enabling provincial-level (but not city- and county-level) authorities to issue debt to

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15 "Flawed Incentives Fuel China's Addiction To Land Sales," *Forbes*, September 9, 2014, accessed March 12, 2015, http://www.forbes.com/sites/ckgsb/2014/09/09/chinas-undue-dependence-on-land-sales/.

16 "The auditors' footnotes," *The Economist*, January 3, 2014, accessed March 12, 2015, http://www.economist.com/blogs/freeexchange/2014/01/chinas-debt.

17 "National Data."

finance investment projects (not day-to-day outlays or credit guarantees). The central government is also experimenting by allowing certain local governments to assess property tax. Currently, local governments represent 80% of spending but only 40% of tax revenue, and without direct control over taxation, land sales are often viewed as the only viable way for local governments to make ends meet.[18] In the short-term, the central government is preparing to allow local governments to refinance upwards of RMB 1 trillion in high-interest debt, saving upwards of RMB 50 billion in interest costs in 2015 alone, with the possibility of additional refinancing down the road.[19] China's proven track record of successfully managing the excesses of the Chinese economy (for example, "on average, high inflationary episodes in China were over thirty months [earlier] than similar episodes in market economies between the 1960s and the 1990s"[20]) suggests that these strategies will be successful.

The strategy pursued by local governments created the widespread belief that housing prices could only go up. In this regard, the housing market is similar to the Hainan Boom and Bust and 2000-2006 in the United States. With reforms, local governments will overtime become less dependent on land sales, which will have a cooling — and stabilizing — effect on the housing market. However, the market remains buttressed by strong fundamentals.

II. Burgeoning Demand and Insufficient Supply: The Ultimate Floor on Housing Prices

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[18] "China's Local Debt Swells to 17.9 Trillion Yuan in Audit," *Bloomberg*, December 30, 2013, accessed March 12, 2015, http://www.bloomberg.com/news/articles/2013-12-30/china-s-local-debt-swells-to-17-9-trillion-yuan-in-audit.

[19] "Defusing a bomb," *The Economist*, May 11, 2015, accessed March 12, 2015, http://www.economist.com/blogs/freeexchange/2015/03/china-s-local-government-debt?fsrc=scn/fb/wl/bl/defusingabomb.

[20] Victor Shih, *Factions and Finance in China: Elite Conflict and Inflation* (New York: Cambridge University Press, 2008), 26.

An analysis of the forces shaping demand and the reality of supply in China suggests that the housing market justifiably produced rapidly increasing valuations beginning in 2000, although local government policy exacerbated housing price growth. The strong fundamentals create a floor below which housing prices cannot fall; this floor will likely remain relatively high in the near future, and consequently Chinese housing prices are unlikely to see devaluation as dramatic as in the United States.

In 2005, Chen Yuan — Chairman of the China Development Bank — famously noted that "urbanization is the most important and enduring motive force [*sic*] in stimulating consumption and investment in China's domestic economy."[21] Urbanization — the relocation of millions of farmers to urban areas in the most massive human migration in history — has also been the engine that drives the Chinese housing market. The scale of China's urbanization is difficult to comprehend. In 2011, China became a majority urban country for the first time in its 5,000 year history, with 50.6% of its population living in cities;[22] today, there are over 150 Chinese cities with over one million residents. While urbanization concentrated millions of citizens and created enormous markets across China, economic growth made it possible for them to become homeowners. Between 2000 and 2011, household disposable income grew at a much faster rate than did home prices, indicating that the housing market was not solely dependent on a constant influx of new homebuyers.[23]

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[21] Henry Sanderson and Michael Forsythe, *China's Superbank: Debt, Oil and Influence* (Singapore: John Wiley and Sons, 2013), 7.

[22] Central Intelligence Agency, "The World Factbook," accessed February 10, 2015. https://www.cia.gov/library/publications/the-world-factbook/fields/2212.html.

[23] James Barth, Michael Lea and Tong Li, *China's Housing Market: Is a Bubble About to Burst?* (Milken Institute, 2012), accessed March 29, 2015, http://www.milkeninstitute.org/publications/view/543, 12.

The sheer size of China's population ensures that the economic engine of urbanization can continue to operate for years to come. For example, over the next decade China will move an additional 250 million rural residents into newly built cities[24] at a cost of RMB 40 trillion.[25] Going forward, urban areas themselves will also serve as increasingly important sources of new demand. Although most Chinese now live in cities, 250 million are migrant workers — only 36% actually have an urban *hukou.*[26] This "internal passport" is the key to the most important benefits of urban residency, including the right to participate in government-subsidized housing projects. China plans to give urban *hukou* to an average of 17 million migrant workers a year, adding 100 million people to the pool of potential homebuyers by 2020 (by that time there will still be more than 200 million migrant workers without an urban *hukou*).[27]

Not only is participation in government-subsidized housing projects restricted to the holders of urban *hukou*, but the supply of such residences is also severely limited. Beginning in the 1990s, work units ceased providing housing to their employees. In order to ensure that the transition to a market-based housing market would be relatively smooth, the Chinese government heavily promoted the construction of economically affordable housing in addition to commodity houses. In 2000-2001, "economically affordable" housing — the purchase of which requires

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[24] Ian Johnson, "China's Great Uprooting: Moving 250 Million Into Cities," *The New York Times*, June 15, 2013, accessed March 1, 2015, http://www.nytimes.com/2013/06/16/world/asia/chinas-great-uprooting-moving-250-million-into-cities.html?pagewanted=all&_r=1&.

[25] Lucy Hornby and Jane Lee, "In China's Urbanization, Worries of a Housing Shortage," *The New York Times*, March 31, 2013, accessed February 13, 2015, http://www.nytimes.com/2013/04/01/business/global/in-chinas-urbanization-worries-of-a-housing-shortage.html?pagewanted=all&_r=0.

[26] "The great transition," *The Economist*, May 22, 2014, accessed March 1, 2015, http://www.economist.com/news/leaders/21599360-government-right-reform-hukou-system-it-needs-be-braver-great.

[27] "Moving on up," *The Economist*, May 22, 2014, accessed March 1, 2015, http://www.economist.com/news/china/21599397-government-unveils-new-people-centred-plan-urbanisation-moving-up.

proof of economic hardship and income and asset verification — accounted for nearly 25% of living area sold. However, by 2010 only 3% of investment in residential real estate was for "economically affordable" housing, compared to almost 20% in 1999.[28] China's "Rat Tribe" — the million residents living in unsafe, illegal rooms built haphazardly in bomb shelters and storage basements under Beijing — is symptomatic of this shortage. As the supply of affordable housing shrank, competition for the remaining units intensified, driving up the price. This imbalance was recognized by the Chinese government, which spent nearly $800 billion to construct an additional 36 million affordable housing units by 2015.[29] Since 2008, the Chinese government has also begun to shift its focus away from promoting private homeownership and towards low-rent programs, a change that will greatly help the poorest urban residents. China's rental market remains dramatically underdeveloped; for example, many investors with hundreds of homes in their portfolios do not bother to find tenants.

Incredibly, 22.4% of urban homes that have been sold — some 49 million units representing RMB 4.2 trillion in mortgages — are vacant,[30] to the extent that it would take 14 months for the market to absorb all unsold homes in first-tier cities and 16 months in second-tier cities.[31] This phenomenon has given rise to the so-called "Ghost Cities" (more often than not, such

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[28] Barth, Lea and Li, *China's Housing Market: Is a Bubble About to Burst?,* 5.

[29] Lucy Hornby, "China's 'affordable housing' numbers don't quite add up," *Reuters,* February 28, 2012, accessed March 1, 2015, http://www.reuters.com/article/2012/02/29/us-china-housing-idUSTRE81S0BA20120229.

[30] Esther Fung, "More Than 1 in 5 Homes in Chinese Cities Are Empty, Survey Says," *The Wall Street Journal,* June 11, 2014, accessed March 1, 2015, http://www.wsj.com/articles/more-than-1-in-5-homes-in-chinese-cities-are-empty-survey-says-1402484499.

[31] Li-Gang Liu, *Is China's Property Market Heading Towards Collapse?* (Peterson Institute for International Economics, August, 2014), accessed March 29, 2015, http://www.iie.com/publications/interstitial.cfm?ResearchID=2656.

"cities" are actually new suburban developments associated with larger, more established cities). Most of the vacant homes are held by investors and speculators, and their repeated buying and selling has come to be known as "stir-frying." This is not an indication of "irrational exuberance" in the Chinese housing market; rather, it is a sign that China's financial markets are severely repressed and that the availability of alternative investments is limited. Over time, China's continued financial deepening will reduce the tendency for investors to hoard so many units. Moreover, this so-called "stir-frying" has not influenced nationwide housing prices; studies indicate that during this period of time "monetary policy clearly accelerated home price growth, while speculative investment inflow did not have a significant impact on home price growth after controlling for money supply growth."[32]

In general, policy and cultural factors have had a a series of stabilizing effects on the public's enthusiasm for home ownership, which kept borrowers from taking advantage of the "certainty" that housing prices will rise. As a result, the Chinese housing market is not at risk of generating a "Minsky Moment."

III. Strict Mortgage Practices and Conservative Homeowners: A Highly Resilient Market

The methods of financing used to fund investments can increase the risk of a bust even when demand and supply are in equilibrium. When it is widely assumed that prices can only go up, investors may feel confident that they can increase their leverage ratio to an unsustainable level. For example, between 2000 and 2006, American homeowners were so highly leveraged that many would have been wiped-out by even a modest decline in the value of their homes, which is ultimately what occurred. In China, the widespread belief that prices can only go up

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[32] Barth, Lea and Li, *China's Housing Market: Is a Bubble About to Burst?,* 12.

has existed for over a decade, but the limitations placed on both borrowers and lenders made it impossible for most borrowers to take advantage of the rise.

The first residential mortgage in China was issued by the China Construction bank in 1986. Since the late 1990s, mortgage lending has expanded by an average of 80% annually.[33] Now, mortgage debt comprises between 80-90% of Chinese household liabilities, the vast majority of which is variable rate.[34] Although the Chinese mortgage market is enormous, it is extremely conservative. By law, "the loan amount [of a mortgage] may not exceed 80 percent of the appraisal value or the purchase price of the house, whichever is smaller, and [the] payment to income ratio should not exceed 70 [percent]."[35] In 2012, the national average down payment was 40%, double the minimum requirement and much higher than the "zero-down" mortgages popular in the United States.[36] Mainland Chinese interest rates also tend to be more robust than their international counterparts; H.S.B.C., for example, is able to offer a USD lending rate 39% lower than the People's Bank of China's RMB Commercial Base Lending Rate of 6.55%.[37]

The large down payment requirements and sturdy interest rates not only insulate Chinese borrowers and lenders against dramatic devaluations, but also limit mortgages to households

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[33] Karl Gerth, *As China Goes, So Goes the World* (New York: Hill and Wang, 2010), 12.

[34] David Mann, Chidambarathanu Narayanan, John Caparusso and Prabhat Chandra, *Asia Leverage Uncovered* (Standard Chartered, 2013), accessed March 29, 2015, https://www.sc.com/jp/_documents/jp/reports/economist-reports/Scout-Asia-leverage-uncovered-01072013.pdf, 40.

[35] Clayton D. LaForge, *The Silver Lining in the Red Giant: China's Residential Mortgage Laws Promote Temperance Among the Surging Middle Class* (University of Richmond School of Law, 2011), accessed March 29, 2015, http://scholarship.richmond.edu/cgi/viewcontent.cgi?article=1028&context=law-student-publications, 1246.

[36] Bell and Feng, *The Rise of the People's Bank of China*, 200.

[37] "HSBC (China) Home Mortgage Loan Base Rates," *HSBC*, 2015, accessed May 5, 2015, https://www.hsbc.com.cn/1/2/misc/loanlending.

with strong finances, almost guaranteeing the absence of subprime borrowers. In China, 69% of mortgage borrowers have relatively high incomes, and default risk is less than 1%.[38] Furthermore, securitization is virtually nonexistent (a pilot program begun in 2005 was cancelled because of its role in the 2007/2008 Financial Crisis) and the secondary mortgage market is underdeveloped, requiring that banks hold the mortgages they issue until maturity, which gives them a strong incentive to lend only to borrowers with the ability to repay. By contrast, American banks, knowing that government-sponsored institutions such as Fannie Mae and Freddie Mac were standing by to purchase the mortgages they issued, had no incentive to scrutinize subprime borrowers. Rather than purchase mortgages from banks, which results in a focus on quantity over quality, the Chinese equivalent of Fannie and Freddie — The Housing Provident Fund — administers a mandatory savings plan, allowing for withdrawals for home purchases and often extending favorable loans to borrowers of modest means. In 2008, it had a balance of $177 billion and extended $30 billion in loans,[39] suggesting that it is well-capitalized.

The conservative nature of Chinese lenders is well-known, however the culture of homeownership in China receives less attention. Chinese borrowers not only make high down payments, but their equity-debt ratio rises as their mortgage debt is amortized because they are unable and unwilling to borrow against the equity in their homes. In contrast, American borrowers rarely increase their equity-debt ratio. Between 2002 and 2007, "American households extracted $2.3 trillion from their houses," with the average American family consequently owing 138% if

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[38] LaForge, *The Silver Lining in the Red Giant: China's Residential Mortgage Laws Promote Temperance Among the Surging Middle Class*, 1247.

[39] Barth, Lea and Li, *China's Housing Market: Is a Bubble About to Burst?,* 5.

its after-tax income.[40] The American practice of repeated refinancing meant that when home prices started to decline, millions of Americans with little to no equity whatsoever were under-water. The fact that millions of Americans were continuously increasing their mortgage debt also meant that on the eve of the crisis, residential mortgage debt as a percent of G.D.P. was over 80%; by contrast, Chinese residential mortgage debt as a share of G.D.P. had not even reached 20% by 2012, three years after the stimulus package (in fact, Chinese citizens are often baffled by the notion of "refinancing," insisting that the logic must be flawed).[41] According to the China Household Finance Survey from the Southwestern University of Finance and Economics in Chengdu, only 3% of Chinese households would be underwater after a 30% decline in housing prices, a quantity that would have a negligible effect on the non-performing loan rate.[42] More-over, the bankruptcies would be concentrated in the upper-classes, with 11.2% of vacant homes — owned by wealthier families — underwater, compared to only 3.3% of occupied homes.[43]

IV. Housing and the Chinese Wealth Effect: The Destruction of Illusory Household Wealth

By and large, Chinese households have not taken advantage of the increase in household wealth that the rising value of their homes has generated. In fact, the increase in household wealth has been illusory and its potential destruction will have little to no effect on the Chinese economy. This is because the value of housing in China has not been part of the Chinese "wealth

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[40] Robert Reich, *Aftershock* (New York, Alfred Knopf, 2010), 63.

[41] Fawley and Wen, *Economic Synopses: The Great Chinese Housing Boom.*

[42] Yukon Huang, "China's Property Market Is No Bubble," *The Wall Street Journal*, July 24, 2014, accessed March 13, 2015, http://www.wsj.com/articles/yukon-huang-chinas-property-market-is-no-bubble-1406220282.

[43] Fung, "More Than 1 in 5 Homes in Chinese Cities Are Empty, Survey Says."

effect," i.e. changes in economic behavior — especially household spending — that result from an improvement or deterioration of household balance sheets.

That the Chinese and American "wealth effects" are not the same has been widely acknowledged. For example, Michael Pettis, a professor at Peking University, has argued that whereas conventional economic logic in the West suggests that rising rates increase the cost of holding cash and should result in more bank deposits, the Chinese tend to target a certain level of savings, higher rates therefore allow them to fulfill their savings goal with smaller deposits. "Chinese households, in other words, should feel richer when the deposit rate rises and poorer when it declines, in which case rising rates should be associated with rising, not declining, consumption."[44] Although rising rates generally decrease consumption in the U.S. (as consumers put more of their money in the bank to take advantage of the high interest rates), rising housing prices have the opposite effect.

Most economists hold that "increasing [U.S.] house prices increase [American] homeowners' wealth, which in turn increases consumption."[45] In fact, "it is estimated that a one-time decrease in [U.S.] housing wealth of 1% leads to a 0.10% decrease in [American] consumer spending."[46] Whereas American consumption tracks home prices, Chinese consumption does not increase in tandem with housing prices. Since 2000, as housing prices have rallied, con-

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[44] Michael Pettis, *The Great Rebalancing* (Princeton: Princeton University Press, 2013), 63.

[45] Les Picker, "How Do House Prices Affect Consumption?," *The National Bureau of Economic Research*, 2015, accessed May 6, 2015. http://www.nber.org/digest/feb06/w11534.html.

[46] Elwell, *Rebuilding Household Wealth: Implications for Economic Recovery*.

sumption as a percentage of G.D.P. has fallen dramatically,[47] and the increase in absolute terms has been modest. This indicates that, unlike in the United States, housing ironically play little to no role in the Chinese "wealth effect." However, it is not simply the case that Chinese household debt is so low that they can afford to lose substantial assets without suffering bankruptcy; the destruction of the nominal "housing wealth" Chinese families have accumulated is illusory and does not constitute the real destruction of Chinese wealth.

At first glance, housing is an enormous source of wealth for Chinese households: housing assets represent 40.7% of household wealth in China, compared to 32.3% of household wealth in the United States; the homeownership rate in China is 85.39% in urban areas and 92.6% in rural areas, compared to 65% in the United States; most surprisingly, the median capital gain on the purchase of a first apartment is around 46%, although it reaches 385% in Beijing, Shanghai and Shenzhen.[48]

However, in China home equity can only be accessed when a home is sold, not through refinancing; furthermore, the underdevelopment of the secondary market means that the capital gains — which are often 300% in major cities — are never realized. Tellingly, the statistics available in China only measure changes in new home prices, whereas the American data available through companies such as Zillow factor in the secondary market as well. Were the millions of second-hand homes to be put on the market, supply would skyrocket and prices would plummet. If accurate, the implications for urban Chinese households (which are, on paper, quite

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[47] *Financial System Review,* (Bank of Canada, December, 2012), accessed March 29, 2015, http://www.bankofcanada.ca/wp-content/uploads/2012/12/fsr-1212.pdf.

[48] Gan Li, "Findings from China Household Finance Survey," Texas A&M University and Southwestern University of Finance and Economics, January, 2013, accessed March 29, 2015, http://econweb.tamu.edu/gan/Report-English-Dec-2013.pdf.

wealthy) would be great. It would imply that the full value of housing assets (which averages RMB 9,300,000 with a median of RMB 4,000,000 for holders of urban *hukou*, compared to the average American equity position of $93,407[49]) should not be included in the calculation of household wealth, which is thought to average RMB 23,750,000 with a median of RMB 3,730,000 for holders of urban *hukou*.[50] Further research is needed to determine the likely value that can ultimately be extracted from houses in the secondary market, but it is almost certainly less than 100%; since the median housing assets held by holders of urban *hukou* is larger than that group's median net worth, even a small drop in the value of housing assets would represent a dramatic "loss."

Since Chinese borrowers have high equity-debt ratios, they are unlikely to be foreclosed upon in a crash; since Chinese homeowners cannot access home equity through refinancing, the secondary market is underdeveloped and the enormous capital gains therefore imaginary, they are less likely than Americans to feel resentment if the value of their home falls below the value of their remaining mortgage, and the effect on spending and other economic measures would be limited. Potential resentment is also limited by cultural factors that place an enormous value on homeownership, whatever the cost. For example, a man is expected to have a home prior to marriage, and pilot schemes of reverse mortgages were relatively unsuccessful because of the preference of older Chinese to make their home available for the next generation. Overall, Chinese enthusiasm for homeownership is in spite of the fact that they view housing as an expense rather

[49] "Z.1: Financial Accounts of the United States," Federal Reserve, December 11, 2014, accessed March 29, 2015, http://www.federalreserve.gov/releases/z1/current/accessible/b100.htm.

[50] Gan Li, "Findings from China Household Finance Survey."

than as a productive asset — Chinese borrowers typically use an astonishing 30-50% of their monthly income to repay their mortgage, creating the so-called *fangnu*, or "Housing Slaves"[51]

IV. Conclusion: Assessing the Recessionary Danger Posed by the Housing Market

The efforts already underway to reform local government finances will reduce the tendency of local governments to inflate land and housing prices. Moreover, unlike in the U.S., the dramatic rise in the value of housing in China has been supported by strong fundamentals, including the on-going process of urbanization, rising incomes and limited supply. Going forward, government initiatives to increase the construction of affordable housing, *hukou* reform and financial deepening will limit price drops and promote a healthy housing market. Overall, China's housing market does not seem to have generated a particularly excessive bubble, and only a modest correction is likely.

Even as prices continue to fall in the short-run, China is unlikely to experience a "Minsky Moment" because the financing structures and lending practices common in China's residential housing market produce far less risk than those common in the United States. Chinese lending standards are strict and Chinese borrowers have large equity positions in their homes. Consequently, the decline in housing values will not destroy massive amounts of Chinese household wealth as it did in the United States. In fact, this "housing wealth" has been largely illusory — it cannot be accessed because Chinese homeowners cannot refinance their mortgages and the secondary housing market is underdeveloped. Consequently, its destruction would have little to no effect on the Chinese economy.

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[51] "China Housing Slaves Helping Property Rebound: Mortgages," *Bloomberg News*, February 19, 2013, accessed February 1, 2015, http://www.bloomberg.com/news/articles/2013-02-19/china-housing-slaves-helping-property-rebound-mortgages.

The collapse of the residential housing market could still result in a recession, however it would be as a result of reduced economic activity and increased unemployment, rather than a deterioration of household balance sheets. The residential housing market is one of the most important pillars of the Chinese economy, and its collapse could cause a recession. According to the I.M.F., real estate and construction "accounted for 15% of 2012 G.D.P., a quarter of fixed-asset investment, 14% of total urban employment, and nearly 20% of bank loans."[52]

When land prices began to fall in the summer of 2011, the National Reform Commission had to step in to stop *Caixin* — China's *The Economist* — from publishing a front-page story titled, "Are the Defaults Starting?" In March, 2015 Kaisa Group Holdings, Limited, a developer based in Shenzhen, did in fact "default," missing $51.6 million in interest payments even after allowing for a thirty-day grace period.[53] Although Kaisa's missed payments may be the result of an anti-corruption investigation rather than a sign of the company's insolvency, it does not change the fact that more research is needed to determine the true health of Chinese property developers.

[52] Kenneth Rapoza, "Real Estate Oversupply Becoming Bigger Program For China," *Forbes*, August 3, 2014, accessed May 5, 2015, http://www.forbes.com/sites/kenrapoza/2014/08/03/real-estate-oversupply-becoming-bigger-problem-for-china/.

[53] Esther Fung, "Kaisa Defaults on Interest Payments on its Offshore Debt," *The Wall Street Journal*, April 20, 2015, accessed May 6, 2015. http://www.wsj.com/articles/kaisa-defaults-on-interest-payments-on-its-offshore-debt-1429535130.

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