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CGEB-CREFR Conference on China’s Real Estate Markets
Friday, April 17, 2015

Conference Summary

On Friday, April 17, 2015 over 130 industry professionals, academics, and students joined us for our daylong Conference on China’s Real Estate Markets. Our conference took place at NYU Stern School of Business and consisted of four panels: Macro and Regional Drivers of China’s Housing and Land Prices; Real Estate Shocks to Corporate Investment and Shadow Banking in China; Industry Perspective on China’s Real Estate Markets; and China’s New Urbanization Strategy. We were also thrilled to welcome Nobel Laureate and William R. Berkley Professor in Economics and Business, Michael Spence as our Keynote Speaker.

Macro and Regional Drivers of China’s Housing and Land Prices

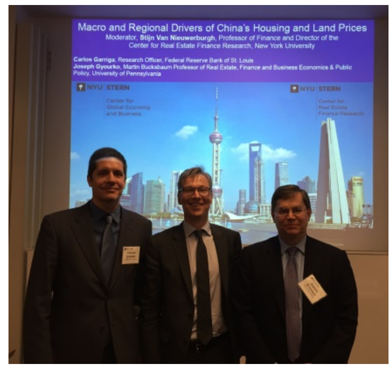
The first session featured two academic papers which – though different in style- get at the same basic question: Is the house price level and the run-up in house prices over the past decade in China consistent with an improvement in economic fundamentals or is it a bubble? The United States housing boom and bust in the 2000s was driven by a significant erosion of credit standards and a significant extraction of home equity by households in the form of second mortgages and home equity lines of credit. When house prices stopped growing, many over-levered households folded and 7 million households ended up in foreclosure. The housing crisis triggered a financial crisis because banks had not transferred much of the credit risk, despite the promise of securitization to do just that. The subsequent deleveraging that both household and financial sectors went through, depressed consumption spending and employment growth, and further weakened housing markets. With this experience still fresh in our memories, it is paramount to look for parallels and differences with the Chinese housing market anno 2015.

[Rural-Urban Migration, Structural Transformation, and Housing Markets in China](#)
Carlos Garriga

Carlos Garriga, a well-known real estate economist working at the Federal Reserve Bank of St Louis, takes a step back and reminds us of the housing market reforms and remarkable structural transformation that the Chinese economy underwent over the last 25 years. In his paper, he models the rural-to-urban migration flows coinciding with the declining contribution of agriculture to GDP. Driving the migration wave is high productivity growth in the manufacturing sector. When workers move to the cities, they earn higher wages but they also compete with other city dwellers for scarce land (for building housing, office, retail, etc.). The wage growth and concurrent demand for real estate, combined with the limited supply of new land that the government makes available each period and the costs of development justify high house prices. In fact, Dr. Garriga’s paper shows that we can explain about 80% of the rise in house prices both nationwide and in Beijing and Shanghai, from these forces. In other words, the structural transformation and urbanization which are expected to continue for the next several decades justify the observed house price levels and the last decade of rapid house price appreciation. His model provides an interesting laboratory to ask pertinent policy questions. What would happen to house prices if China's productivity growth in manufacturing started to permanently decrease? In such a scenario, could the government support housing price levels by relaxing borrowing constraints for households (for example by lowering mortgage rates or down payment requirements)? What would that do to urban migration flows? Can the government affect migration flows away from certain cities and towards other cities by using its land quota system, and what would that do to house prices? Will declining house prices make urban migration more attractive?

[Evaluating the Risk of Chinese Housing Markets: What We Know and What We Need to Know]
Joseph Gyourko

Prof. Joe Gyourko, the director of the Zell Lurie Center for Real Estate at the Wharton School at the University of Pennsylvania, started with the important observation that measuring risk in housing markets requires having reliable house and land price series. With his co-authors, Prof. Gyourko has been a pioneer in constructing such high-quality land price indices for China. In his talk, he presented land price growth data over the past decade and emphasized the geographic heterogeneity in local housing market conditions across cities. While national land prices grew by 160% over the 11 years from 2004 to 2014, prices in Beijing grew by 1000%, by 450% in Chonqing, by 350% in Shanghai, and by 330% in Tianjin. But they grew by "only" 100% in Dalian and by 78% in Xian. Next, the paper documented several new metrics on the quantities of housing demanded and supplied in order to arrive at a better picture of the fundamentals of each of the largest 35 real estate markets in China. Studying novel data on new housing units constructed, unsold developer inventory, and vacancy rates, three categories of cities emerged. The first category has supply at least 10% below projected demand, implying strong fundamentals. This group contains Beijing, Shanghai, Shenzen, Changchung, Hangzhou, among others. A lot of these cities are located on the East Coast. A second group of cities looks decidedly vulnerable with supply at least 30% above projected demand. This group includes cities such as Chengdu, Chongqin, Wuhan, Nangchan, among others. Many of these are second and third tier cities in the middle and West of China. The remaining group contains cities somewhere in between where demand and supply are roughly in line. Finally, the paper studied price-to-rent and price-to-income ratios. Price-to-rent ratios in many large Chinese cities exceed 25, roughly double the average level in large U.S. cities. Beijing has price-to-rent ratios of 50, Shanghai and Nanjing 45, Tianjin and Guangzhou 40. In most cities, price-rent ratios are flat or decreasing, but sometimes this is because rents are rising rather than prices falling. Similarly, price-income ratios are far above the levels seen in the U.S. Houses in Beijing cost 12 times average income, and many other large cities have values above 8, which is about twice the average value for the U.S. While such high price-rent and price-income ratios are not necessarily problematic and may simply reflect the very high growth rates (and expected growth rates) in income in the major Chinese cities, they do suggest that housing markets are priced for perfection. At a price-rent ratio of 50, a 1% slowdown in rental income growth would reduce house prices by 1/3rd.



Carlos Garriga, Stijn Van Nieuwerburgh and Joseph Gyourko

Real Estate Shocks to Corporate Investment and Shadow Banking in China

Understanding house price dynamics, both how and why they have moved in the past and thus how they are likely to evolve in the future is clearly critical to understanding China's real estate markets. However, the evolution of these markets will also have much broader implications for other parts of China's economy and financial system and, by extension, the world economy.

[The Crowding-out Effects of Real Estate Shocks - Evidence from China]

Laura Xiaolei Liu

For example, the drop in house prices associated with the housing crisis in US had well known negative effects on household consumption but also on corporate investment. Does this link between the real estate markets and corporate investment also exist in China, what are the direct effects of changes in prices on firms that hold real estate assets on their balance sheets, and do these effects induce additional indirect effects on other firms who do not appear to be exposed to these markets? These are the questions that Laura Xiaolei Liu of Peking University answers in her paper "The Crowding-Out of Effects of Real Estate Shocks—Evidence from China" (co-authored with Ting Chen of the Hong Kong University of Science and Technology and Li-An Zhou also of Peking University). The key challenge is to identify the true effects of real estate prices, given that fluctuations in broader economic conditions will effect both these prices and corporate investment. The paper overcomes this challenge by using government policy shocks that caused price decreases in 46 cities independent of underlying economic conditions. With this identification strategy, the paper shows that, as in the US, higher prices cause increased investment for those firms with real estate assets. Moreover, in China this investment is concentrated in the real estate sector. Of potentially greater importance for the real economy, rising prices have serious negative consequences for investment efficiency on two dimensions. This new investment is less efficient than existing investment, and the potentially more efficient investment of other firms is crowded out. There seems to be a limited amount of investment capital available, and rising real estate markets pull this capital away from more productive uses elsewhere in the economy. Therefore, from a policy perspective, buoyant real estate markets have a downside, the government should be cautious about propping up or supporting these markets, and, in fact, policies that pull down prices could benefit the economy as a whole.

Robert Whitelaw

[The Great Wall of Debt: Credit Risk of Chinese Local Government Obligations]

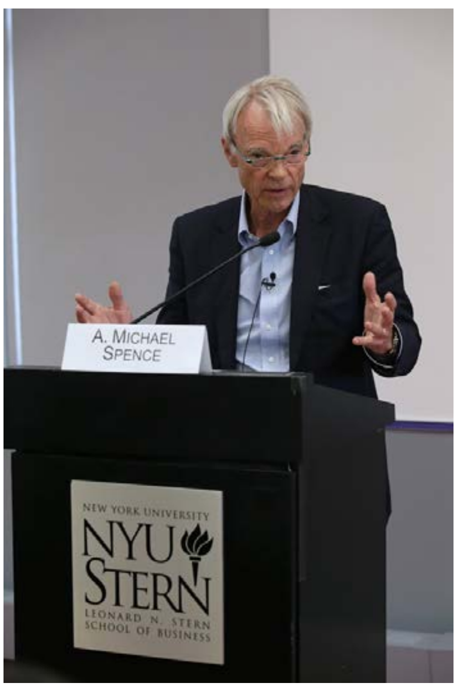
Jennie Bai

An equally important issue is the effect of real estate prices on the health of the financial system in China. While securitization, which was critical to the transmission of real estate shocks to the broader system in the US, is not prevalent in China, other securities are closely linked to the health of the housing sector. Jennie Bai of Georgetown University in her paper "The Great Wall of Debt: The Cross Section of Chinese Local Government Credit Spreads" (co-authored with Andrew Ang of Columbia University and Hao Zhou of Tsinghua University) examines one such security, chengtou bonds. The approximately RMB 5 trillion of this debt is issued by municipalities through local government financing vehicles, and the proceeds from these debt issues have been the drivers of a substantial amount of the investment-driven, post-crisis stimulus in China. These bonds are tied closely to the real estate sector because it is the value of the land transferred from local governments to these financing vehicles that provides collateral for this debt. The chengtou bonds are held, in turn, by banks and shadow banks, thus linking real estate to the financial system as a whole. The paper examines the determinants of yield spreads on these bonds and identifies a number of significant factors, including the China's sovereign CDS spread and conditions in the local real estate market where the chengtou bonds are issued. The former effect is consistent with the existence of a partial implicit guarantee from the central government, which would expose government finances to local real estate risk. The latter effect links the health of the banking and shadow banking sector to these same risks. In addition, the yields on chengtou bonds provide a window both into investors' perception of local housing risk and into the overall health of the financial system.

Keynote Speech
Michael Spence, Nobel Laureate, William R. Berkley Professor in Economics & Business, New York University

The Chinese economy is in the course of a major transition away from rapid export- and investment-led economic growth toward more moderate consumption-led growth. Navigating that transition effectively will be the key to sustaining the rapid improvement of living standards in China. It also will matter greatly for the world economy: even at the currently slower growth pace of about 7%, China remains (by virtue of its size) the largest contributor to global economic growth.

In addition to its scale (in terms of population, output and exports), China stands out economically in notable ways. In particular, consumption accounts for an exceptionally *low* share of expenditure – only about 35 percent of GDP, compared to advanced economy norms in the range of 60 to 70 percent. The reason is that household disposable income in China is only about one half of national income, while the household savings ratio is high at around 30 percent.



A. Michael Spence, Keynote Speaker

China cannot rely over time on its past growth model. China already has very high global market share in the production of those goods where its comparative advantage lies. That will constrain export gains. At the same time, diminishing returns to capital and leverage limit the growth benefit from sustaining China's extraordinarily high rate of investment (roughly one half of GDP).

As a result, the ongoing slowdown of the economy – currently to a pace of about 7 percent – was largely inevitable. Had China's leadership acknowledged and welcomed this reality back in 2008 when the global financial crisis hit, they could have avoided unnecessary vulnerabilities. These include the large, government-promoted buildup of debts associated with local government financing vehicles, shadow banks, and real estate investment. They might also have made greater progress in kickstarting consumption as the new engine of growth.

Going forward, the government can still master this transition to a more moderate consumption-led expansion that will boost living standards over the long run. It has enormous assets (including the state-owned enterprises – SOEs – that own perhaps one half of the country's fixed assets) with which to address losses in the financial system. But mastering the transition will require financial reforms to boost disposable income and consumption. These probably include a further liberalization of bank deposit and lending rates, incentives for the SOEs to boost their payouts sharply (say, to at least one half of earnings) and measures to limit the government's implicit guarantees for financial institutions, while providing explicit guarantees to depositors.

The process is not without risk. Many countries fail to break out of the "middle-income" trap. Powerful domestic interests probably will resist efforts to reform finance and the SOEs, so leadership is critical for progress. The world economy outside China poses serious challenges. At the top of the list is the ongoing financial crisis in Europe, which could still undermine China's largest export market.

Finally, the housing market plays an important role in any economy, but the impact of a shock to house prices in China would be different than in the US, because Chinese households are so much less levered. A downturn in house prices would lead to a negative shock to consumption, but not with the severity we saw in the US financial crisis, where extremely high levels of leverage magnified the impact. On the other hand, the potential sensitivity of household consumption to the housing sector is an important concern for China now as it transitions to a new, consumption-lead growth strategy.

Stijn Van Nieuwerburgh, Jane Weng, Harrison Hong, Jian Xu, Ken Miller, Jennifer Carpenter, and John Liang.

Industry Perspective on China's Real Estate Markets

Professor Jennifer Carpenter moderated a panel discussion with distinguished real estate industry and markets experts, starting with Mr. Jian Xu, Managing Director at Greenland Group, one of China's largest real estate developers. Mr. Xu acknowledged the real estate sector's central role in China's economy and described the rapid growth of real estate companies over the last decade. The average company grew tenfold in value, as the government provided a supportive growth platform. Increasingly fierce competition is now leading these firms to expand globally. Meanwhile, current inventories represent excess supply that will not be absorbed until at least 2016. However, Mr. Xu does not believe the market is in a bubble at risk of bursting. On the contrary, he is optimistic that growth in housing demand is inevitable and the market is under the control of the government, which can apply corrections as needed, by relaxing constraining policies and promoting reforms that will benefit the industry, for example, buy allowing homeowners to buy second homes.

Mr. John Liang, head of US operations of Xinyuan Real Estate company, the only NYSE-listed Chinese developer, reaffirmed this optimism. He described how homeownership in China is a cultural priority, a necessary condition for winning a bride, and how Chinese people are averse to borrowing too much money. In his view, China is if anything, under-built. In the larger cities, such as Beijing, land prices have soared as constraints on land supply lead to bidding wars, to the point where "the flour is more expensive than the bread." Meanwhile, the government tightly controls the two core market factors, land supply and mortgage lending, and can tighten or loosen these spigots as needed. For example, the government has reduced the required down payment on homes from 70% to 40% and is introducing a national mortgage program. He explained that unlike in the US, the free market model does not apply in China, and the government's very visible hand will continue to control and support China's real estate market.

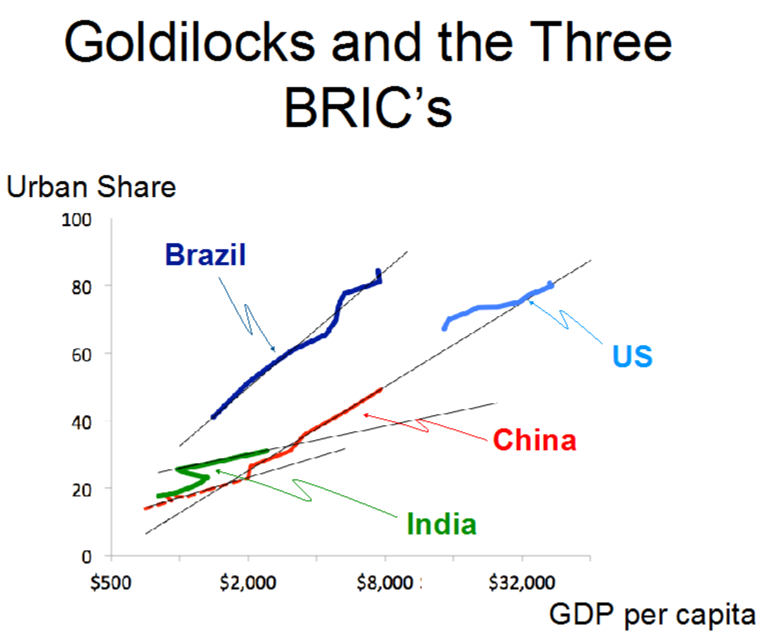
Mr. Ken Miller, a venture capitalist, merchant banker, and Senior Adviser to Teneo Capital with deep experience in China, did not share this optimism about the real estate markets in the short run. He described the growth of China's real estate sector as part of the government's larger investment-driven growth strategy, which is now running out of steam. There are now over 15,000 private real estate developers in China and stock prices are high, but return on equity is beginning to decline. On the real side, a real estate slowdown would have a severe impact on countries such as Australia that are supplying raw materials. On the financial side, as bad loans come due, the government has enough reserves to bailout the system, but a large liquidation of its reserves would shake the global capital markets.

Jennifer Carpenter, Jane Weng, Jian Xu, John Liang, Ken Miller, and Harrison Hong.

Finally, Professor Harrison Hong of Princeton, a prize-winning economist with extensive personal experience in China's real estate markets, offered both his local and global perspective. He explained how the high price-to-rent ratios in China reflect the view that real estate is one of the only good investment choices in a limited opportunity set where until recently the only alternatives were low-return deposits and a distrusted stock market. New shadow banking products such as peer-to-peer lending offer more competition for investor capital. Meanwhile, the high price-to-rent ratios make China's real estate markets very vulnerable to shocks in expected growth rates and discount rates. The global implications of a real estate shock in China would depend critically on government capital controls, and the degree of financial market liberalization. He also explained how real estate market dynamics have worsened the problem of wealth inequality in China. In his view, it would actually be good to see a correction in prices, which would lead to better capital allocation and wealth distribution.

China's New Urbanization Strategy

The last panel of the day, moderated by Paul Romer, NYU Stern Professor of Economics and Director of the NYU Marron Institute on Urban Governance, focused on China's New Urbanization Strategy. Professor Romer opened by emphasizing the importance of urban planning for China's real estate market and explaining how China's growth in income per capita will drive a commensurate increase in housing demand and floor space. This demand for floor space translates to a demand for urban land. Using a Goldilocks and the three BRICS metaphor, he showed how the path of China's rate of urbanization as a function of log GDP per capita lies a trajectory that connects eventually to the path followed by the US. By contrast, Brazil is seeing urbanization with much less income growth and India is seeing income growth with very little urbanization, both of which are unsustainable. The challenge for China is how to accommodate its policy of protecting the total area of arable land while allowing for what could well be a fourfold increase in the amount of urban land.



Dr. Yuan Xiao of Columbia Law School described how China's property rights policy prevents rural collectives from selling rural land directly to urban developers. Instead, local governments take land from peasants in exchange for compensation, and sell the land, but they can only convert rural land into urban land up to an annual quota, and these quotas cannot be banked or traded. The quotas are allocated by the central government and are not in correspondence with local demand, which results in urban land shortage in many cities. Some local governments are working around these constraints by consolidating scattered rural residential dwellings into denser high rises, and then reallocating the residential space to urban areas. This effective quota trading scheme introduces some element of market dynamics, but is restricted to the county level. Dr. Xiao would like to see policy reforms that do more to relax constraints on the banking and trading of quotas.

Alain Bertaud of the NYU Marron Institute on Urban Governance described China's city cluster strategy for urbanization, which links nearby cities with high-speed rail to create a common labor market. This model has been used elsewhere, for example, in the Randstad around Amsterdam, to create a common labor market with the associated benefits of economies of scale, positive spillovers, and productivity increases, without changing the boundaries of the cities themselves. In China, however, this will take place on an unprecedented scale. For example, the high-speed rail that now links Beijing and Tianjin creates a city cluster of 37 million people. One of the main challenges is creating an efficient public transport system. The cluster is too large for traditional subways and buses. One solution could be a hybrid that pairs the high-speed rail, which would have stations about ten kilometers apart, with station-to-door transport via small shared electric vehicles, or even one day, driverless cars. Overall, Bertaud is optimistic about the central government's ability to adapt urban transport to take full advantage of the potential productivity of very large labor markets.

For a Post-Conference blog post by Kermit Schoenholtz, Director of the Center for Global Economy and Business, please click here.