An Austrian Analysis of Chinas Unsustainable Boom

Howden, David and XingBin Li, Jason

2015

This article can be cited as: David Howden and Jason XingBin Li. 2015. "An Austrian Analysis of China´s Unsustainable Boom." *Journal of Economic Affairs* 35(3): 443-52.

It can be found at: http://onlinelibrary.wiley.com/doi/10.1111/ecaf.12133/abstract

David Howden
Professor of Economics
St. Louis University
Madrid, Spain
dhowden@slu.edu

Jason XingBin Li
Universidad Rey Juan Carlos
Madrid, Spain
jasonbingolee@gmail.com

An Austrian Analysis of China´s Unsustainable Boom

China has enacted great institutional reforms over the past three decades, especially in the fields of social, political and economic policies. The resultant success story is now well known, with surges in per capita nominal and real incomes. By embracing the general ideology of capitalism, China had become a prosperous developing country, often depicted by the media as the "next superpower".

While China is in the midst of a macroeconomic boom, there are also some sector specific developments that are causing concern. One such area is the real-estate market. According to Soufun Data and China's National Bureau of Statistics (NBS), in June 2014 the national average house price has increased by 420% since 2000. In megacities like Beijing and Shanghai, housing prices have increased disproportionately relative to the interior regions. Beijing is now one of the most costly places to live in Asia (Fung 2014).

While the rise in per capita income is a positive development, the question of whether bubbles are forming in fields like real-estate is troubling. Is China's rise to prominence over the past 30 years sustainable and part of a trend bound to continue or has its expansive boom been predicated on unsustainable factors?

Austrian Business Theory

Austrian Business Cycle Theory (ABCT) makes a clear distinction between sustainable and unsustainable growth. Growth is sustainable when the profit of investment is greater than the depreciation allowance, *and* these investments are financed by real, not artificial, savings. Artificial expansions of the money supply by the central bank, fiduciary media by the fractional-reserve banking system, or credit by either party, creates a destabilizing monetary environment that allows for investments to be financed by some means other than real savings. A sound monetary system is necessary to coordinate the market rate of interest with the natural rate consistent with savers' preferences, thus promoting inter- and intra-temporal coordination.

Unsustainable growth, on the other hand, is generated from distortions to the capital structure of an economy from a loose monetary policy. The capital structure is distorted to favor investment furthest from final consumption, i.e., longer-dated investment projects. The result will be over-investment at the far end of capital structure (furthest from present consumption) at the expense of more intermediate-duration investments. Austrian economists refer to this shifting of investment expenditures as "malinvestment" (Mises 1949: 573). At the same time as businesses are making destabilizing malinvestment, consumers are using the artificial increases in the money supply to over-consume, or spending beyond their present and future income constraints. Finally, since the financial system acts as an intermediary of the central and private bank created credit, it will grow in size and importance relative to the real sectors of the economy (Howden 2010).

China's Real-Estate Boom

One common argument for China´s boom has been that the country is just "catching up" to the rest of the world, not so dissimilar from other developing countries´ economic trajectories throughout the 20th century. This story is evidenced by China's rise in total factor productivity (TFP), which had increased by nearly 15% per year from the early 1980s through the mid-1990sTFP measures the contribution to economic growth that cannot be explained by the growth of capital or labor. Notwithstanding a brief increase from 2005-08, TFP has dwindled over the past 25 years and is now less than 2% per year. While there was general economic growth since the reforms of the early 1980s, it has since been replaced by sector-specific expansions that may best be described as imbalances. Besides the great leaps in income and output China has experienced over the past 20 years, the housing market may be the feature that best defines the current boom. Average housing prices have more than quadrupled in China over the past 15 years, and have doubled in only the past four years (figure 1).

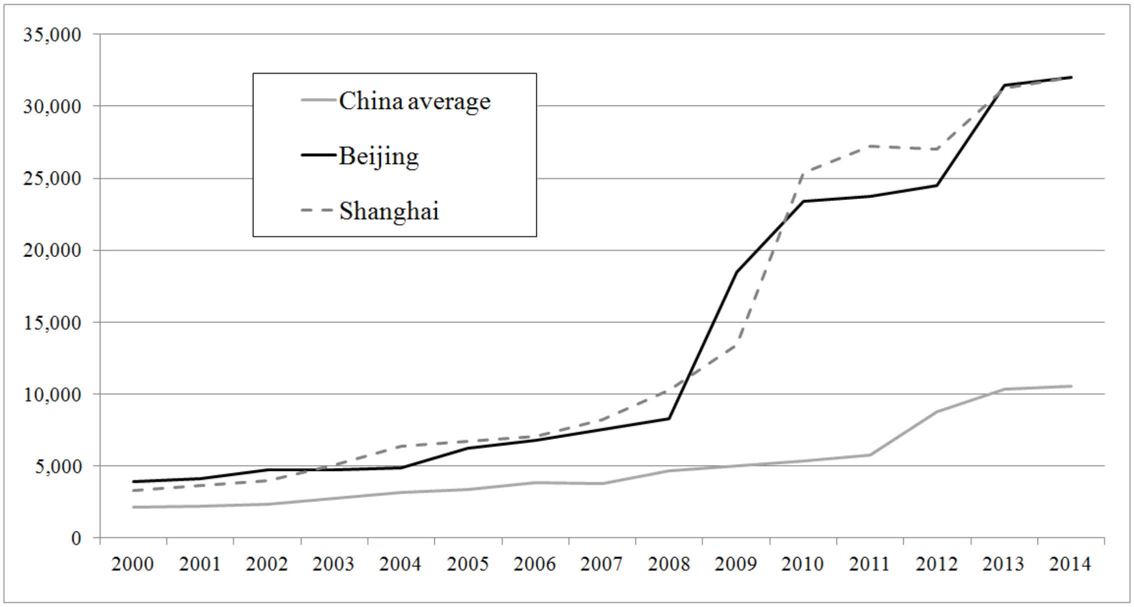

Figure 1: Chinese house prices (CNY per square meter)[1]

Source: NBS and Soufun Ltd.

The typical justifications people attribute as root causes for the current real-estate boom cover both demand and supply sides of the market. Government intervention is widely regarded as guaranteeing ever-increasing property prices: the cost of a recession triggered by real-estate market collapse would be too heavy for the Chinese government to survive, both economically and politically (Zhang 2013). The “inelastic demand”, or Gang Xu, for housing is a point repeatedly cited by Chinese economists and government officials as the primary reason why real-estate prices cannot significantly fall (Wang 2011). There are several reasons behind this argument. First, the great scale of urbanization has created a “rigid” demand for property (Masahiko and Wu 2012). Second, high inflation and suppressed financial markets have made housing a crucial investment (Coulson and Tang 2013). Finally, cultural values emphasize the importance of property for both marriage and raising a family.

[1] From January 2011 the NBS stopped publishing national house price data. Since then we have taken an average price in house prices in 100 cities from Soufun as a substitute for the national average price.

In addition to this “inelastic” housing demand, land-use restrictions enforced by the government (like land-use rights policies), also play an important role in explaining rising property prices (Zhang et al. 2013). Almost all land is government owned. (Land owned by the private sector is leased on a “land-use right”, which normally lasts for 60-70 years.) Consequently, revenues collected from leasing lands have become one of the most important sources of financing for local governments (since they were not allowed to issue local government bonds until 2014).[2] This land-use monopoly has made economic real-estate developments difficult to promote (Stein 2006). Hence, land restrictions have limited the supply of new housings and propped up market prices.

Chinese commercial banking is strictly controlled by the central bank, the People’s Bank of China (PBC). The PBC sets reserve requirements and loan targets. The benchmark interest rate is determined by the PBC, and commercial banks can only lend at the official rate subject to restrictions (between 70% and 110% of their benchmark rate).

By several measures, the PBC has eased monetary policy over the last two decades. As a result of its fixed exchange rate with the U.S. dollar, the PBC must “import” the Federal Reserve’s monetary policy which has been quite loose as its quantitative easing policies have been wound down (figure 2). However, China’s monetary policy has been even looser yet with M2 growing by over 800% since 2000. Despite being relatively stable for two decades, the ratio of M2 to M1 money supplies has risen substantially since 2010 (by comparison, a time period that has witnessed considerable deleveraging in the United States). This ratio can

[2] According to the Ministry of Finance of the PRC, provincial governments, autonomous regions and centrally controlled municipalities can issue local government debt of “moderate consideration”, while lower level governments only can issue their own debt through agreement with a higher level of government. We define “local government” as any lower level government institution subordinate to the central government.

be used as a proxy for the amount of bank-created credit relative to the central bank created monetary base.

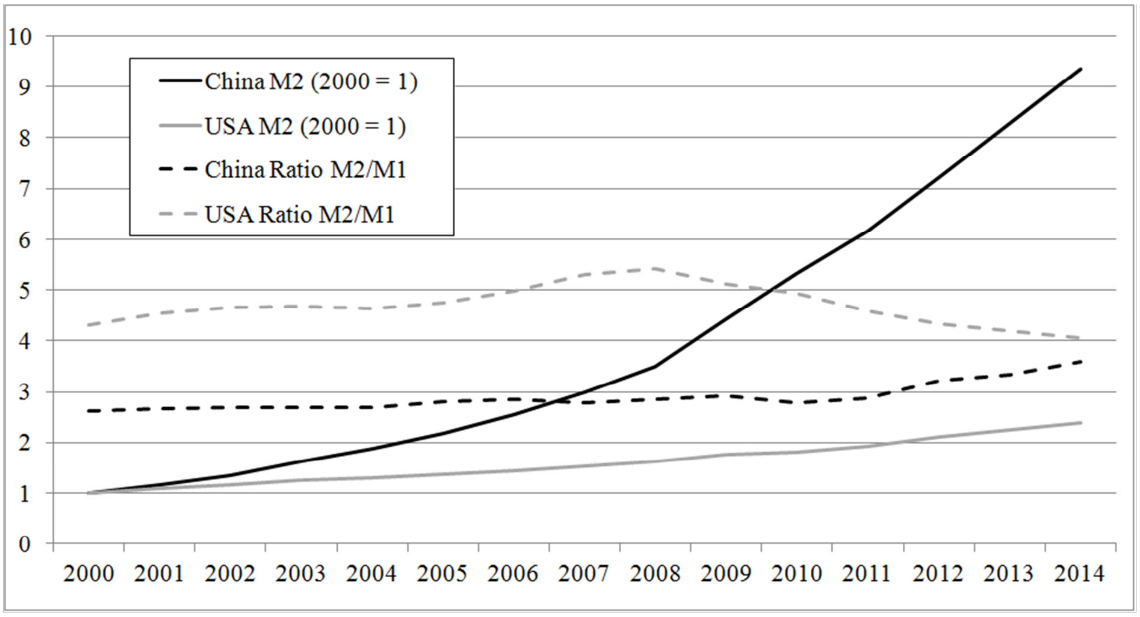

Figure 2: Chinese and American money supplies
Source: Federal Reserve Bank of St. Louis, Economic Data

Under such lax monetary conditions, both consumer and producer prices have been buoyant. While the late 1990s were defined as a period of general price stability, since 2000 both price indexes have registered average annual inflation of nearly 5%. While still not too high to be worrying to many economists, the lack of financial products that allow the average citizen to avoid the costs of inflation is troublesome.

In part, housing is one way that these people can hedge their bets. This, together with higher-than-inflation increases in housing prices, make real estate a very promising instrument for those who want to hedge against or speculate on the continuation of inflation, especially when compared to its alternatives: bank deposit rates below CPI inflation, struggling equity markets, and blanket prohibitions on overseas investments (Zhang et al. 2013; Gul. et *al*. 2010; Cumming et *al*. 2013).

Interest rates on demand deposits are negative when adjusted for strong consumer price inflation (figure 3). Low interest rates create a bind for Chinese citizens. With concerns about the future cost of living, many save large amounts of their income to fund their retirements (Howden and Zhou 2014). While these low interest rates dissuade Chinese savers from buying monetary investments (preferring to channel their savings into assets like real estate), producers are more than willing to seek out credit at such attractive rates. Figure 3 shows that after peaking near 15% in the mid-1990s, the benchmark the PBC uses in pricing mortgages has declined to around 5% today. Adjusted for inflation, real borrowing rates are quite low by absolute and historical standards.

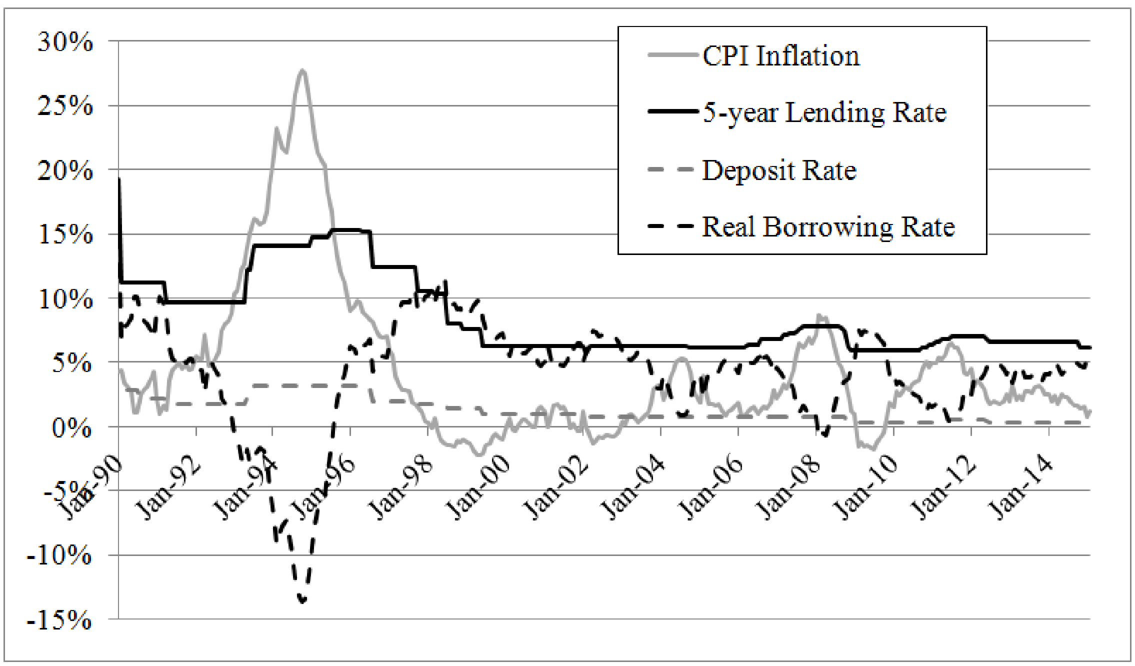

Figure 3: Inflation, Deposit and Lending Rates
Source: People's Bank of China

One way to see the effect of this low benchmark rate is to look at the total sum of mortgages outstanding. Mortgage lending growth has been strong since 2008, partly as a result of large government stimulus plans aimed at construction spending to boost GDP figures, and partly due to low interest rates encouraging domestic demand. As of 2014, 11.52 trillion CNY (18% of GDP) worth of individual consumer mortgage loans were outstanding. In addition, mortgage loans of major financial institutions, small rural financial institutions and foreign banks amount to 17.37 trillion CNY (27% of GDP). The general riskiness of banking sector assets is accumulating as loans are issued to less credit-worthy individuals or organizations (Lu et al. 2015).

Since 1978, China has created a series of policies to facilitate economic growth. Chief amongst these is the use of a fixed or heavily managed exchange rate to promote exports (Huang and Wang 2011; Cumming et *al*. 2013). This fixed exchange-rate policy requires that real interest rates must be the same in both countries (China and the U.S.) for interest parity to obtain. If China's interest rates were to be higher than U.S. interest rates, "hot money" would flow into China due to the favorable interest rate spread. Today this spread favors Chinese investments by over 3 percentage points (figure 4). As a result, appreciating pressures are placed on the yuan, but an unaccommodative PBC maintains the fixed rate at an artificially devalued level. One result of this policy has been a surge of "hot" money entering the country.

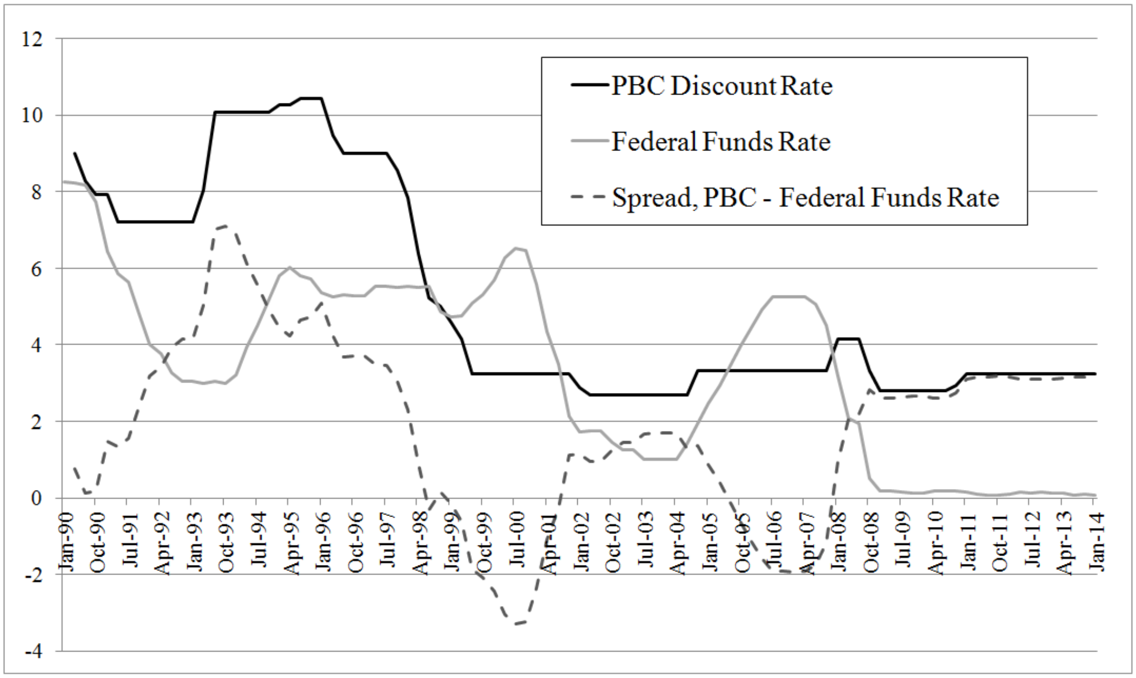

Figure 4: PBC and Federal Reserve Target Rates
Source: Federal Reserve Bank of St. Louis, Economic Data

At the same time, strict government control over the loan markets has caused market distortions. Cheaper bank loans are often provided to those who have a good relationship with banks officials, especially for publicly-owned businesses (Yan and Shao 2013). This leaves unconnected individuals with no option but to lend. Corruption in this area has been increasing, and several cases have been discovered of private lending companies arbitraging between the "dual-track loans markets" (i.e., the public and private markets) in recent years (Dong and Wang 2011; Shan et al. 2014). As a special form of dual-track loan markets, shadow banking is also growing quickly, reaching 45 trillion CNY (71% of GDP) by the end of 2014 (Moody's 2015; Lu et al. 2015).

In the public sector, revenue from land-use rights is producing vital funding for local government debt refinancing. In the first quarter of 2014, China's Ministry of Finance estimated that revenues from land-use rights reached 1.08 trillion CNY, roughly 55% of total local government revenue (1.95 trillion CNY). The local governments have an incentive to spur on the real-estate boom because if the housing bubble bursts they will lack funding to refinance their debts. In addition to the debt of local governments, the central government owes an additional 12.38 trillion CNY (roughly 24% of GDP).

Since 2012, China has enforced a “prudent” monetary policy in a bid to suppress the rapid growth of banking loans and the mounting risks of a real-estate bubble. Rather than reducing the total cash flow to the real-estate sector, these regulations have simply encouraged banks to circumvent traditional lending practices. By repackaging and promoting loans to state-owned trusts and asset-management companies, banks have been able to maintain their loan levels to a large extent while seemingly meeting the lower loan quotas and loan to deposit ratios (He et al. 2014).

If China is experiencing an Austrian-type boom, one aspect should be the undue growth of the financial sector (Howden 2010). In particular, deposit banks acting as credit intermediaries should see relative profits increase as they distribute fresh capital into the economy. Since China as yet has a relatively undeveloped financial sector, it is difficult to discern in absolute terms whether such growth is occurring in the financial system, especially relative to countries with establish financial systems. Still, trend changes over time point to such financial growth.

One way to measure the growth of the banking sector is by looking at its ability to intermediate credit. As the expansion of the money supply is only partially under the control of the PBC, the ratio of bank credit to deposits gives a better picture of the banking system’s ability to affect financing.

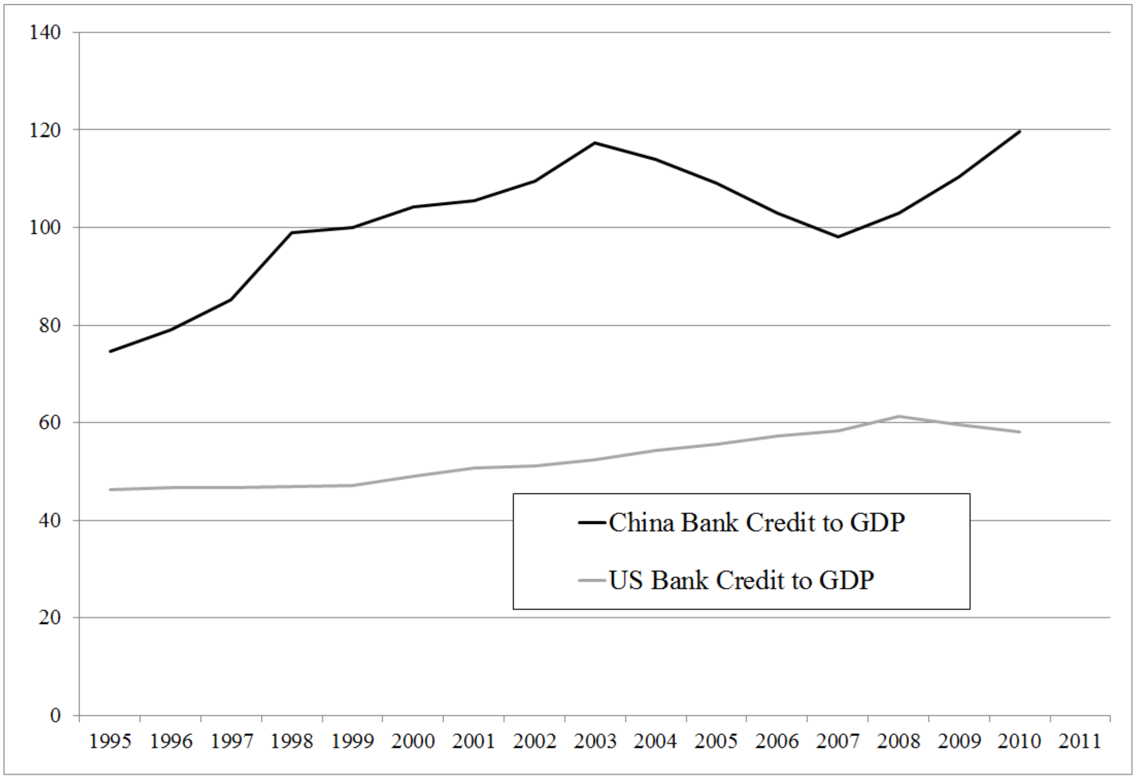

Figure 5: Bank Credit to GDP (%)
Source: Federal Reserve Bank of St. Louis, Economic Data

Although the ratio of bank credit to deposits has decreased over the past decade (to about 250% today), the growth of the base money supply has fostered a large disconnect between the amount of available credit relative to the underlying economy. Consider figure 5, showing the ratio of total bank credit to the relative economies of the United States and China. As of 2010, the last year the PBC made data available, China's banking sector intermediated 120% of GDP worth of loans. This figure had grown by 20 percentage points since the liquidity crisis of 2007-08, and in relative terms is twice as leveraged as the American banking system.

One could point to the growth of China´s credit markets as a general case of government intervention (as most financial companies are controlled or influenced by the central government). Thus, rather than being an example of an ABC, China´s story would be better told as one of centrally misdirected resources.[3] Though undoubtedly true, it is important to point out the roundabout way in which government intervention has wreaked havoc with the economy. The Chinese government has been praised for divesting itself of its previous heavy handed style of economic management. While it is true that significant reductions have been made in the realm of direct economic controls, ultimate control is still had through the credit facilities of the banking system. As a result, the Chinese government has (potentially unwittingly) set in motion an unsustainable boom that has yet to culminate, in contrast with previous economic mistakes that were evidently unsustainable at a much earlier stage.

Further Anecdotal Evidence

There are also anecdotal examples alluding to malinvestment, overconsumption or undue financial sector growth. Three Chinese cities, Ordos, Zhengzhou and Wenzhou, are often cited as "ghost cities" (Chen 2013). Despite over-construction in several key areas, real estate prices remain buoyant in many of the larger centers (and especially in Beijing and Shanghai). One explanation for the apparent disconnect between high prices and oversupply is that the types of housing units demanded by the influx of new workers (i.e., affordable units for low income workers) are not being met by the types of new units being constructed (mostly aimed towards higher income earners). In 2014, 23% of urban real estate was vacant, and the Survey and Research Center for China Household Finance lamented the "severe mismatch of affordable housing" (China Household Finance Survey 2014). Only 2% of housing properties in Ordos were ever occupied. The remainder has mostly been vacant and mid-construction abandonment of projects is rampant. In Zhengzhou the vacancy rate is 23% according to Credit Lyonnais Securities Asia (Chen 2013). By comparison, the vacancy rate of American housing was at 7% as of 2015 and has only rarely surpassed 10% over the past 50 years (US

[3] We thank a referee for making this point.

Census Bureau 2015). While normally this surplus would result in lower housing prices to clear the market, most real estate is built and owned by the central or local governments, and is not under the same profit constraint as private businesses. (One of the key components of China's Twelfth Five-year Plan was to construct 36 million homes by 2015, roughly adding 10% to the existing stock.)

China’s annual infrastructure spending now surpasses that of the United States *and* the European Union (Ryan 2014). There are many “bridge to nowhere” types of projects, from a $4.8 billion theme park built in Tibet (The Tibet Post 2013), to an economically dubious $23 billion railway from Lanzhou to Xinjiang in the Northwest part of the country, to luxury local government buildings resembling those in the U.S. Capital (Wang 2009).

Conclusion

ABCT can explain the ways in which the current Chinese economic boom is unsustainable. On the one hand, government interventions, such as land monopolies, have raised costs for real estate developers. By limiting the availability of investment instruments and access to external markets, government interventions have created the strong demand for housing as a hedging tool against ever-increasing housing prices. On the other hand, a loose monetary policy and artificially low interest rates have made the property market quite tempting to developers. The over-construction and over-consumption in the housing sector coincide with the capital structure analysis that Austrian economists hold as the core of their business cycle theory. Coupled with the growth of the financial sector facilitating credit, China’s recent economic growth pattern is largely consistent with an Austrian styled boom and can best be described as unsustainable.

References

Chen, Te-Ping. 2013. “China’s ‘Ghost Cities’ May Not Be So Spooky”, Wall Street Journal. 24, September. Accessed 27 June 2014, http://blogs.wsj.com/chinarealtime/2013/09/24/chinas-ghost-cities-may-not-be-so-spooky/

China Household Finance Survey. 2014. “´The Vacancy Rate of Urban Housing and Trend in the Housing Market´ CHFS Press Conference Held in Beijing.” [Available] http://www.chfsdata.org/detail-2,26,28-103.html (accessed 15 June 2015)

Coulson, N. Edward, and Mingzhe Tang. 2013. Institutional and demographic influences on the presence, scale and geographic scope of individual chinese real estate investment. *Regional Science and Urban Economics* 43(2): 187-96.

Cumming, Douglas, Alessandra Guariglia, Wenxuan Hou, and Edward Lee. 2013. *Developing china's capital market: Experiences and challenges*. New York: Palgrave Macmillan.

Fung, Esther. 2014. China Housing Slump Hits More Than Houses. The Wall Street Journal, 18 June. Accessed 8 July 2014, http://online.wsj.com/articles/china-new-home-prices-mark-first-monthly-decline-in-2-years-1403057754

Gul, Ferdinand A., Jeong-Bon Kim, and Annie A. Qiu. 2010. Ownership concentration, foreign shareholding, audit quality, and stock price synchronicity: Evidence from China. *Journal of Financial Economics* 95(3): 425-42.

Howden, David. 2010. Knowledge Shifts and the Business Cycle: When Boom Turns to Bust. *Review of Austrian Economics* 23(2): 165-182

Howden, David, and Yang Zhou. 2014. China's One-Child Policy: Some Unintended Consequences. *Economic Affairs* 34(3):353–369.

Huang, Yiping, and Xun Wang. 2011. Does financial repression inhibit or facilitate economic growth? A case study of Chinese reform experience. *Oxford Bulletin of Economics and Statistics* 73(6): 833-55.

Lu, Yunlin, Haifeng Guo, Erin H. Kao and Hung-Gay Fung. 2015. Shadow banking and firm financing in China. *International Review of Economics & Finance* 36: 40-53.

Masahiko, Aoki and Jinglian Wu. 2012. *The Chinese economy: A new transition*. New York: Palgrave Macmillan.

Mises, Ludwig von. 1949. *Human action: A treatise on economics*. New Haven, CT: Yale University Press.

Moody's. 2015. China's shadow banking growth slows on regulatory tightening, but new areas emerge. 22 Jan. Accessed 27 March 2015, https://www.moodys.com/research/Moodys-Chinas-shadow-banking-growth-slows-on-regulatory-tightening-but--PR_316856

Ryan. D. 2014, Riding China's infrastructure boom. *Business Speculator*. 27 February. Accessed 27 June 2014, http://www.businessspectator.com.au/article/2014/2/27/china/riding-chinas-infrastructure-boom

The Tibet Post, 2013. China to Construct Multi-Billion Dollar Tourist Project in Lhasa, 11 July. Accessed 27 June 2014, http://www.thetibetpost.com/en/news/tibet/2696-china-to-construct-multi-billion-dollar-tourist-project-in-lhasa-tibet

US Census Bureau. 2015. Housing Vacancies and Homeownership. [Available] http://www.census.gov/housing/hvs/index.html (Accessed 15 June 2015)

Wang, N. 2011. Unveil "GangXu." *China Construction Information* 17, 20-25.

Wang, Xue Jin. 2009. Who Serves in Luxury "White House" prison? *Communists* 23: 69.

Zhang, Chengsi. 2013. Money, housing, and inflation in china. *Journal of Policy Modeling* 35(1): 75-87.

Zhang, Dingsheng, Wenli Cheng and Yew-Kwang Ng. 2013 Increasing returns, land use controls and housing prices in China. *Economic Modelling* 31: 789-795.