

17th Pacific Rim Real Estate Society Conference  
Sunday, 16 January to Wednesday, 19 January 2011

GOLD COAST, Australia

THE IMPACTS OF ANTI-SPECULATION POLICIES ON HOUSE PRICE  
MOVEMENTS: THE CASE OF GUANGZHOU, CHINA

Dr Janet Xin Ge

School of the Built Environment, University of Technology Sydney  
PO Box 123 Broadway, NSW 2007, Australia  
Telephone: +61 2 9514 8074, Fax: +61 2 9514 8777  
Email: xinjanet.ge@uts.edu.au

Abstract

The Chinese government implemented a new regulation in April 2010 for the purpose of regulating and suppressing real estate speculation and maintaining a healthy and sustainable housing market in the long term. This policy proposes to increase the minimum down payment for purchasing second homes. First-home buyers must deposit a minimum of 30 percent down payment for purchasing properties of over 90 square meters. Buyers of second homes with areas less than 90 square meters must make a minimum of 50 percent down payment, and loans for the purchase of third homes have been temporarily suspended. The impacts and effectiveness of the policy were challenged and argued about by various groups associated with the housing market. This paper studies the results of a survey on the impact of the new regulation. The market performance is then analysed using the case of Guangzhou. Finally, elements that affect house prices and the future direction of house prices will be estimated from the demand for and supply of housing in the marketplace. The study suggests that the new regulation is effective in preventing speculative activities and that house prices in Guangzhou will decrease in the short term.

Keywords: housing market, house prices, government policy, Guangzhou

## THE IMPACTS OF ANTI-SPECULATION POLICIES ON HOUSE PRICE MOVEMENTS: THE CASE OF GUANGZHOU, CHINA

China is one of the most populous countries, having a population of 1.35 billion people. It implemented economic reforms and opened its market to the world in the early 1980s. Its economy has been growing dramatically since then, especially from the 1990s, and is currently among the biggest in the world (GPG, 2010). Figure 1 shows the growth trend of the Gross Domestic Product (GDP) in China over the last 5 decades in US dollars. The GDP in 2008 was US\$4,327 billion, which represents 13 and 3.2 times the GDP in 1988 and 1998 respectively.

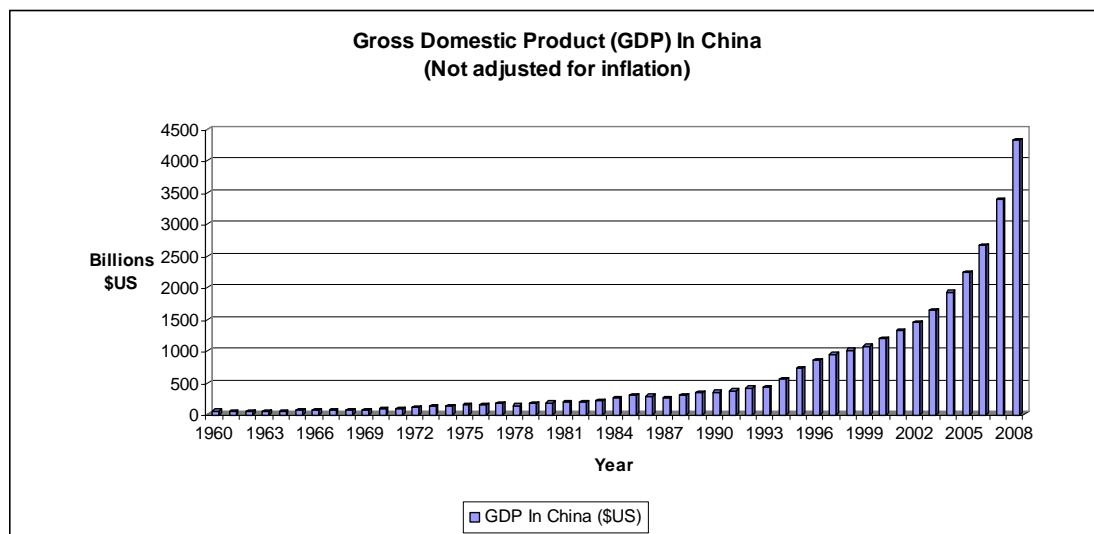


Figure 1. Gross Domestic Product in China. (Source: World Bank, 2010).

Residential housing in China has traditionally been characterized by a highly centralized planning system in housing investment, supply and distribution (Ye, 2007), in which houses were provided by the government or associated enterprises where members of the household work. When the Housing Provident Funds (HPF) was introduced in 1994, residential houses started to be traded freely and actively in the market (Li & Yi, 2007). The HPF is a scheme that encourages workers to save a portion of their income for home purchase, such as for down payment, monthly payment and building repairs. Employees must contribute 5 percent of their monthly income, and their employers must match that amount. The employees are allowed to simultaneously borrow from the HPF and commercial banks for home purchase, and the remaining funds cannot be withdrawn unless they retire, die, or move company (Ministry of Finance, PR China, 1994). There were 80 million workers in the HPF scheme by 2004, and they had saved 630 billion yuan, or \$US76 billion (Global Property Guide, 2010). This caused a dramatic increase in home ownership in China. Housing is an important asset or “home” for Chinese people, driven by Chinese cultural attitudes (Chovanec, 2009a; Ronald, 2008). This attitude contributes to home ownership, particularly for men seeking a wife (Zha, 2009; Yu, 2010).

The higher demands for home ownership have strongly boosted residential house prices in China. Real prices more than doubled over the past decade, appreciation rates escalating at the beginning of 2007 and then again in early 2009. The house price index for the period January 2006 to October 2009 (Figure 2) and the changes of

house prices in China (Figure 3) have demonstrated strong growth in the housing market. The most recent data show a record 41 percent (annualized) growth rate for the first quarter of 2010.



Figure 2. House Price Index in China from January 2006–October 2009. (Source: NBSC)

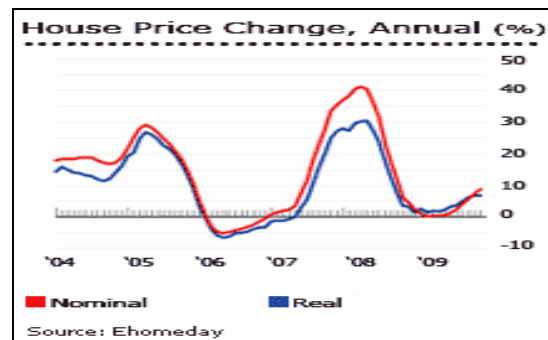


Figure 3. China's housing markets (1994–2010). Source: Ehomeday

The National Bureau of Statistics (2010) indicates that housing prices have increased 9.3 percent in China's 70 cities since August 2009 and 11.7 percent over the same period last year, reaching a record high since 2005, when monthly housing price statistics first became available. In the first ten months of 2009, the volume of sales for all types of property was nearly 80 percent higher than for the same period the previous year. Floor space sold rose 48 percent, activity being the most chaotic in the country's major cities.

According to the *China Real Estate News* in May (2010a), house prices to income earning ratio in 2009 reached 8.03. The ratio exceeded 14 in Beijing, Shanghai, Shenzhen, Hangzhou and some second-tier cities. In Beijing, the capital city, urban residents had 24,725 yuan (US\$3,689) per capita, and an average household disposable income of 64,285 yuan (US\$9,591). An average family household residential area of 90 square meters costs 1.6 million yuan (US\$238,720), according to the average price of Beijing housing in November 2009; i.e., 17,810 yuan per square meter. The price earning ratio is 25:1 or the equivalent of 25 years of family disposable income (*China Real Estate News*, 2010b).

A sizable portion of new lending has flowed into real estate. Total financing for all real estate developers grew some 43 percent in the first 10 months of 2009, to 4.4 trillion yuan. Mortgage lending jumped by a spectacular 120 percent, to more than 616 billion yuan (US\$91.8), and lending to property developers rose by 50 percent to just over 911 billion yuan (US\$135.8) (Knowledge at Wharton, 2009).

Housing plays an important role in the social, economic and welfare system in a country. Ownership of housing has become one of the key welfare issues (Groves et al., 2007). A higher housing price reduces home ownership and thus may distort the welfare provision, social stability and economic development. Scholars are debating whether bubbles are exiting in the Chinese housing market. Though the World Bank confirms that there is no property bubble in China (Oliver, 2009), many contrary claims are based on the facts of higher vacancy rate (Javers, 2009; Powell, 2010), high price to income ratio (Xu, 2009) and high price to rent ratio (Veneziani & Weisenthal, 2010), as well as a weak secondary property market in China (Chovanec, 2009b). To

prevent a potential concern for a property market crisis, the Chinese government adopted intervention by producing anti-speculative regulation policies.

### ***Research Methods***

Forty years ago, the methodology of policy study was well researched. Cook and Scioli (1972) developed a research strategy for measuring policy impacts based on the principles of experimental design methodology. Three approaches were identified by Yin and Heald (1975) with regards to policy studies: propositional method, cluster method and case survey method. The propositional method works best when previous studies have been organized along a similar experimental paradigm. Conclusions are drawn from comparison between the previous studies and new findings. The cluster method is most effective when previous studies have produced large amounts of original quantitative data that can be aggregated and reanalysed. The case survey method works best when the studies consist of a heterogeneous collection of case studies. Case study research on policy is continually advocated. According to Hancock and Algozzine (2006), case studies produce in-depth knowledge of a policy within a narrowly defined framework and provide an understanding of both policy processes and outcomes. The method is an essential tool for understanding why a policy is enacted, how it is implemented, and which factors contribute to its success or failure.

The aim of this research is to uncover the impact of the anti-speculative policy issued by the Chinese government on house prices, by examining housing price performances before and after the policy was issued. The research question is: Does the anti-speculative policy achieve the desired objectives for which it was designed? Due to the variation in housing and market conditions across provinces and cities in China, and the potential implications of these differences for the implementation of a housing policy, the study was limited to studying the impact of the housing market in Guangzhou as a case study. The impacts of the policies through (a) utilising secondary survey data to understand how purchasers view the anti-speculative policy; (b) an investigation of experts' opinions which are searched randomly in publications on the Internet; and (c) a case study comparing housing price performance before and after the issued policy in Guangzhou. The discussion and analysis of the impacts of housing policy then are concluded.

### ***Government Policies on Housing Market in China***

Housing policies and systems of provision and finance in mainland China are different from those of other East Asian societies, such as Hong Kong, Singapore and Japan. According to Ronald (2008), both Hong Kong and Singapore show aspects of British housing policy, as they were British colonies. Singapore has developed an intense and highly controlled system of 'public-home ownership', whereas Hong Kong demonstrates a more managed approach to housing system development and has a large public rental sector. Home ownership was central to post-war housing policies in Japan.

In mainland China, there are five stages of the reform process in the housing system. The first is massive public housing stock provided mostly for free as a component of social welfare by government institutions and state-owned enterprises, also called Welfare Allocation Period (1949–78), or a government-invested-and-run-welfare-

housing system (Lou & Palomar, 2006). Under this old system, land could not be granted or transferred. There was little incentive for housing investment and improvement, since the nominal rent collected did not even cover the cost of basic maintenance (Deng et al., 2009). The second stage (1979–87) of housing reform focused on testing various measures such as rent adjustment and privatization of the existing public stock (Wang & Murie, 2000), also called the Experiment Period (Ye, 2007). A policy *Implementation Plan for a Gradual Housing System Reform in Cities and Towns* opened up a nationwide comprehensive housing reform in China for the period 1988–98. During that time, public housing started to be sold to the sitting tenants at heavily discounted prices. Both supply- and demand-side programs were created to facilitate the development of a housing market under the framework of *The Decision on Deepening the Urban Housing Reform* issued in 1994. A multilayer housing provision system for different income groups was established. For example, Economical and Comfortable Housing (ECH) subsidized middle- and lower-income households so they could purchase affordable housing. The HPF was also created for financing house purchases. Private investment in housing was encouraged.

Immediately after the Asian financial crisis in 1997, the Chinese central government in 1998 issued a significant policy: *A Notification from the State Council on Further Deepening the Reform of the Urban Housing System and Accelerating Housing Construction*, for the purpose of prohibiting enterprises from building or buying new housing for their employees. Most urban households began to purchase housing developed by private sectors, and China finally established the mechanism on open trade housing market (Deng et al., 2009). The effect of the policy was that China's annual investment in real estate averaged about 746 billion yuan (US\$111.3 billion), or about 7 percent of the nation's GDP from 2000 to 2004 (Ye et al., 2006). Homeownership and urban residents' living conditions also significantly improved (Feng, 2003).

Purchasing housing for living and investment became a much-debated topic and a common occurrence in Chinese families. Since housing prices soared crazily in 2007, the government implemented measures to prevent and deflate the bubbles in the housing market. The tighter housing policies included new property taxes and tighter lending conditions. Foreigners were allowed to freely own property in 2001. However, under the new policies, foreigners have restricted ownership unless they have worked, studied or lived in China for more than one year, and the property can only be used for personal purposes and not for rental. The increase in house prices slowed down in the first half of 2008 and fell in the second half of 2008 (3.2 percent in real terms in Beijing) during the global financial crisis (*Global Property Guide*, 2010).

In response to the global crisis, the Chinese government produced stimulus programs including:

- A four trillion yuan (US\$585 billion) stimulus package was allocated for a housing and infrastructure project, manufacturing, education and industry in November 2008;
- Local governments were allowed to issue 200 billion yuan (US\$27.6 billion) in bonds through the Ministry of Finance;
- The property deed tax rate was reduced to 1 percent from 1.5 percent for first-home buyers purchasing less than 90 square meters; and

- 5.5 percent business tax could be exempted for selling residential property held for more than two years.

Buyers took advantage of looser lending conditions and lower interest rates, and developers were able to acquire loans because of the lowered capital requirements. The residential property market responded quickly, and property prices in Shanghai increased by 19 percent from March to July 2009 (Wang, 2009), for example.

A rapid rise in housing price due to a huge demand in the marketplace has created not just an economic problem but also a problem of social stability and housing affordability. To cool down the overheated real estate markets and speculative activities, *A Notification from China's State Council on Enhancing Stable and Healthy Development in the Real Estate Market* was issued on 17 April 2010 (China State Council, 2010). The notice requests raising the down payment on home purchases to 50 percent of the purchase price and 30 percent for homes bigger than 90 square meters for first-home buyers. Interest rates on loans for second houses will be no lower than 1.1 times the benchmark rate, and there is a temporary suspension on loans for the purchase of third properties. The notice also requests a hold on all loans to borrowers who cannot provide proof of a year or more of local tax or social insurance payment (Weinland, 2010).

The State Council, the central government's main administrative body, is chaired by the heads of some 50 ministries operating on the national level. Provincial governments are allowed to formulate detailed implementation guidelines based on their different segment market conditions. Beijing, Shenzhen and Guangzhou have already taken measures to restrict the number of houses a household can own.

Beijing was the first city in China to issue its own restrictions on home purchases in late April 2010, stating that households in the capital were allowed to buy only one additional home. Shanghai is the latest city in China to exercise measures for curbing speculative demand in the property market (Fung, 2010). One family is restricted to having one home, which means a family unit consisting of parents and their child, excluding an adult child (Chong, 2010). The city government has also produced measures such as boosting land supply (at least 70 percent of total residential land supply) to public housing and small- to medium-sized home construction, as well as differentiated credit policies and tax changes, such as raising the developer's land-appreciation tax based on the sales price of a property, to 2–5 percent from 1 percent (Fung, 2010). The policy has no specific timeline.

Guangzhou has the most flexible lending rules, issuing a *Property Control 24 Measures* on 21 May 2010 that included increasing the supply of land and an inventory of vacant land, increasing construction of affordable housing, increasing market supervision, etc. However, the measures did not involve curtailing demand. For example, Shenzhen also introduced property control rules but has not limited the number of families that can purchase commercial housing (*China Real Estate News*, 2010d).

It has been claimed that the increased loans for second homes are the highest since the government began policy regulation of the commercial housing market in 2003 (Weinland, 2010). There are also concerns that the policy to tighten second-home

purchases is hard to implement due to the independence of housing registration and banking systems (Li, 2010). In China, housing registration is not linked with provinces or with the banking credit system or the marriage registration system. It is hard to prevent people from buying second houses in different provinces. In many cases, a house is registered to a single owner instead of a married couple. However, a divorced person who owns half of a house will be treated when he or she applies for a loan as if it was for a second property.

Some policies have also aimed to regulate developers. On 11 March 2010, the Ministry of Land and Resources issued a directive stating that developers must make a 50 percent down payment on land at auctions within one month after signing a contract, or they will lose the land and their deposit. The new regulations are designed to punish property developers who deliberately raise housing prices by delaying the proposed sales dates. The Ministry of Housing and Urban-Rural Development has pledged to order developers not to take deposits for sales of uncompleted apartments without proper approval. Developers must disclose to the public all apartments after getting pre-sale approval (Wang, 2010).

### *Market Effects of the Policies*

Effects of the policies can be studied through survey results, expert opinions and housing price performances before and after the policy.

#### *Survey Results of the Policies*

Home-buying activity in some areas has cooled following the central government's nationwide tightening measures on April 2010. The average daily sales volume in Beijing during the first week of October fell to 134 units from 550 units in the last week of September. In Hangzhou, average daily sales dropped to 121 units from 452 units in the previous period (Deutsche Bank, 2010). A new survey (*China Real Estate News*, 2010c) suggests that 88.9 percent of users believe that house prices did not fall in Guangzhou.

The China Real Estate Research Center (CRERC) has conducted a survey that studies the degree of satisfaction with the new real estate policies in China for the period of 5 April to 7 May 2010. More than 1,000 home purchasers participated in the survey. Table 1 shows part of survey results on property policy. 70.04 percent of home purchasers support the policy on limitation of second-house purchasing and restrictions on purchasing a third house; 66.5 percent of purchasers also support the down payment of 30 percent for homes bigger than 90 square meters. Most of the purchasers (58.37 percent) agree that the lending policy has affected demand, 66.56 percent of the purchasers supported the land and tax policy, and 58 percent agreed that the policy will reduce speculation in property. Close to 50 percent of the purchasers believe that the policy will deflect some pressure on house prices. Table 1 summarises part of the statistics on satisfaction with the new policy.

Ten experts and developers were also included in the survey. Fewer than half the experts agreed that the policies that limited the second and restricted third home purchase, as well as the formulation of property tax, will deflect housing prices and dampen speculation. However, developers seem positive about the policies that will affect housing prices.

The survey results indicate that purchasers support the anti-speculative policies regulating housing markets. The message is that purchasers acknowledge the sustainable increase in housing prices and the need for government intervention. However, whether the policies achieve the desired objectives for which they were designed is questionable, as more than half the participants think that the policies may not effectively deflect the housing prices.

Table 1  
*Part of Survey Results on Property Policy*

Policies	Purchasers	Experts	Developers
Support for the policy on limited 2nd and restricted 3rd home purchase	73.04%	47.62%	
Support for the policy on down payment on home purchases to 30 percent for homes bigger than 90 square meters.	66.5%		
Limited 2nd and restricted 3rd home purchase will reduce demand in the market.	58.37%		
Limited 2nd and restricted 3rd home purchase will deflect housing price.	39.82%	47.62%	63.64%
Down payment on home purchases to 30 percent for homes bigger than 90 square meters will reduce demand in the market.	44.82%		68.08%
Support for the policy on formulation of property tax.	66.56%	81.85%	
Formulation of property tax will dampen speculation.	45.97%	46.61%	

(Source: CRERC, 2010)

#### *Experts' Opinions on the Policy*

The opinions of eight real estate experts were randomly selected from newspapers and websites. Experts argued for and against the new housing policies and the effects of tightening policies issued by the Chinese government. Reactions to the new policies are mixed.

According to Li Shaoming (2010), a Beijing-based analyst at China Jianyin Investment Securities Co, there must be some effects on housing prices if the policy is implemented effectively. He said that the tax policies may follow if those measures fail to produce evident effects.

The new policy aims at restricting housing demands by administrative orders, especially the demands from non-owner-occupiers. Song Hui Yong (2010), Director of the Research and Consulting Department, Shanghai Centaline Property Consultants Limited, claimed that it is impossible for residents to enter the housing market now. He pointed out the policy will be effective when increasing housing supply to balance the higher demand on housing.

Professor Yan Jinming, a land management specialist at Renmin University in China, said that it is the first time that the central government has produced comprehensive measures to balance land supply and demand, which will effectively cool the



overheated real estate market. He also said that “the series of measures gives residents confidence in the domestic housing market and curbs speculation in the country’s major cities.”

According to Fitch Ratings, the recent policies are expected to moderately cool the market sentiment, in line with the government’s goal of deflating bubbles and ensuring the property sector’s long-term healthy development. Michael Wu, a director in Fitch’s Asia-Pacific corporate team, advised that the recently announced policies of curbing lending on second or additional residential property purchases will reduce demand from investors and speculators who may find it more difficult to finance their purchases.

Ha Jiming, Chief Economist at China International Capital Corporation, suggested that the measures will curb housing demand and reduce medium- and long-term risks for China’s economy and the financial sector, but more reasonable lending rates are needed to deflate the housing bubble in the long term.

Deputy Secretary-General of the Beijing Real Estate Association Chen Zhi advised that speculation is the main reason behind high house prices in Beijing, and housing has become more unaffordable for many.

House sales in some major cities have started declining as potential home buyers expect prices to fall in the wake of the tightening measures. In the week ended 25 April 2010, sales of new homes in Shenzhen tumbled 60 percent from the previous week (Wang, 2010).

Hansei Real estate expert Wang Jianlin claimed that housing prices in Guangzhou will fall 10% in 2010 due to falling demand after a strong price growth in 2009.

The above opinions indicate that experts acknowledge the overwhelming housing market and support the new housing policy issued by the government. They seem to believe that the policy will produce some effects on the housing market. However, concerns are also implied in their opinions that the policy may not be sustained, as strong demands on the housing market may dilute the effectiveness of the policy.

### ***Housing Price Performances: The Case of Guangzhou***

Guangzhou, the capital of Guangdong Province, located in southern China, is the country’s third largest city after Shanghai and Beijing. The housing market in Guangzhou has gradually developed to become open, transparent and efficient. Figure 4 shows statistics on the average residential house price trend from 2003 to 2010 (October onwards) and the percentage increased from the previous years, as provided by the Land and Property Bureau of Guangzhou. It shows that the average housing price per square meter in 2010 increased by 184 percent or 1.84 times the price in 2003. Housing prices have demonstrated a rapid increase every year. The average selling price of new houses was 9,338 yuan (US\$1,393) per square meter or a 7 percent increase over the previous year and a 44 percent increase from 2006.

The prices were relatively flat in the first half of 2009, due to the effect of the global financial crisis (Figure 5). The Chinese government produced a stimulus package, and

the prices rose again towards the end of 2009 and early 2010. It was reported that the average price of housing in six main districts in Guangzhou rose to 14,000 yuan per square meter, double that of the last five years (*Southern China Newspaper*, 2010). In 2009, the sale of both new and existing houses soared. There were 29,608 transactions, an increase of 90.7 percent, and the sale of existing houses increased by 53.7 percent for the same period from the previous year.

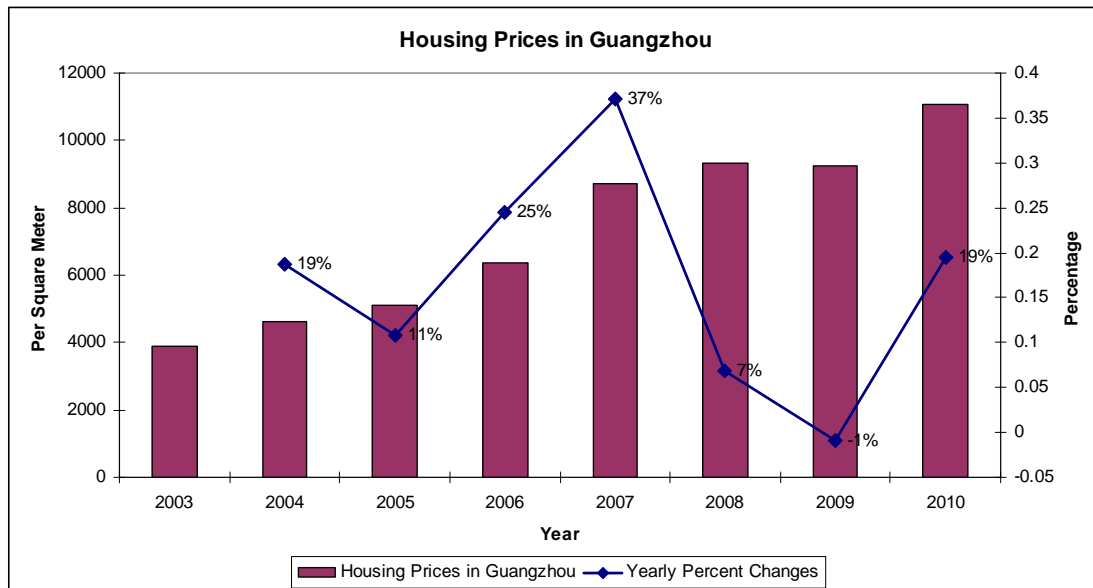


Figure 4. House price per square meter trend in Guangzhou.

In April 2010, the new housing policy was announced. The Guangzhou housing market fell by 23 percent, from 12,955 to 10,000 yuan per square meter, after the policy was issued, from that of May to June 2010 (Figure 5) and increased again from September. The trend is similar for existing houses. According to Zhang et al. (2010), three possible reasons for the rising prices in Guangzhou are:

- a) more choices from the available housing stock;
- b) house prices have been adjusted from the new policy to purchasers' affordable level;
- c) commencement of the Asian Games in November 2010.

Have the policies deflected housing prices effectively? What are the impacts of the anti-speculative housing policies? The aim of the anti-speculative housing policies is to stabilise housing prices by curbing speculative activities. How the anti-speculative housing policies affected housing market depends on the market performances, i.e., housing price, trading volume and new construction.

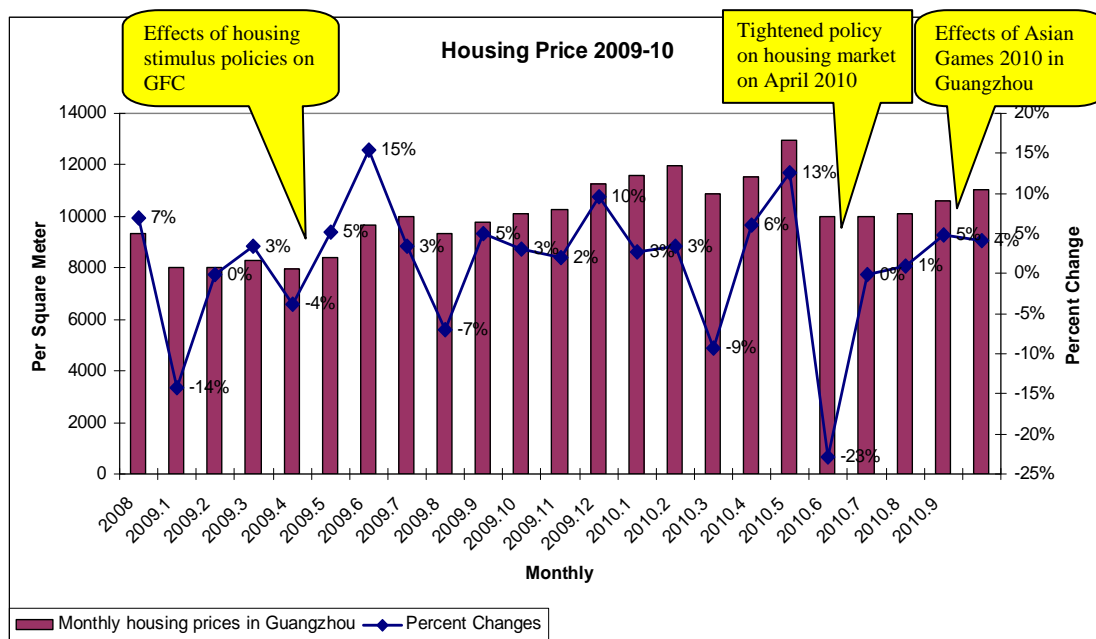


Figure 5. Monthly housing price in Guangzhou 2009-10.

### *Effectiveness of the Policies*

The policies are considered effective when their objectives are achieved. As shown in Figure 5, there is evidence of effectiveness on the government interventions. One was the GFC stimulus programs when government aimed to rescue the housing market from falling in the track of recession. Housing prices rebounded effectively from negative 14 percent in January 2009 after the announcement of the stimulus program. The recent policies were issued in April 2010 for the purpose of dampening anti-speculation activities. The housing price was 11,511 yuan and 12,955 yuan per square meter, or a 13 percent increase, from April and May 2010. The price decreased to 10,000 per square meter, negative 23 percent in June 2010, since the issue of the new policies. Demands for housing have been reduced as buyers of second and third houses are limited by the administrative order and by the increase of loan deposits. House trading volume was less frequent, and the housing price was stabilised for a few months. However, developers were forced to pay higher tax on sales and restricted from collecting money from presale unless they obtained prior approval. As fewer developers are able to put down 50 percent of the deposit on land auction, land price inflation may be controlled. However, it is questionable whether the effects of this policy can be sustained.

### *Ineffectiveness of the Policies*

It is widely accepted that house prices are determined by the demand for, and supply of, houses in the property market. The demand for housing depends on national economic factors such as GDP and interest rate, and local elements like population, household income and employment (Reichert, 1990). Expectations about the future direction of the economy affect current demand (Ge & Lam, 2002). Housing price appreciation stimulates investment demand for houses and leads to speculation (Case & Shiller, 1990; Levin & Wright, 1997). Government policy, inflation, interest rate changes and rate of return on property all have significant effects on consumer confidence and the demand for housing (Wheeler & Chowdhury, 1993).

In Guangzhou, the current population is 10.3 million, and it is expected to increase to 15 million in the next 20 years. Economic growth has been maintained between 11 and 15 percent each year (Figure 6). The Guangzhou government planned to invest 25.37 billion yuan (US\$3.82 billion) on fixed assets and infrastructure in 2010. The per capita disposable income has also remarkably increased over the last decade and reached 27,610 yuan (US\$4,120) in 2009 (Figure 7), according to the primary data from the local municipal statistics bureau. By the end of 2009, total savings including foreign currency in Guangzhou was 1.6929 trillion yuan (US\$254.9 billion), and total residential savings was 686.7 billion yuan (US\$103.4 billion), though the unemployment rate increased to 4.2% in 2010 (Figure 9). Chinese people have the good habit of saving money. There are fewer instruments available for investment in China. Many people thus prefer to invest in the real property market to gain capital return and guard against inflation. Given the constant increase in population and income, in particular, the interest rate remains low at 5.94 percent in 2010 (Figure 8) for loans of five years, a higher demand for housing will be expected. The policies on the restriction on buying second and third homes may reduce the trading volume on houses. However, it may only have temporary effects, as housing prices will be under demand pressure to rebound rapidly, given the same housing supply.

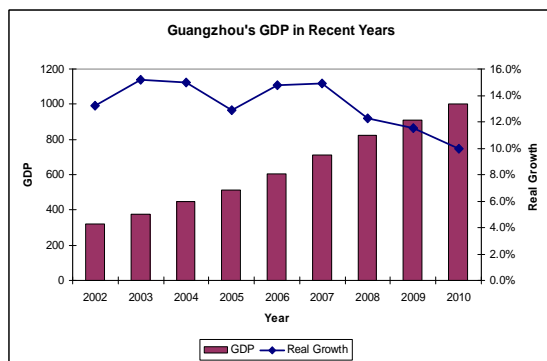


Figure 6. Guangzhou's GDP in Recent Years.

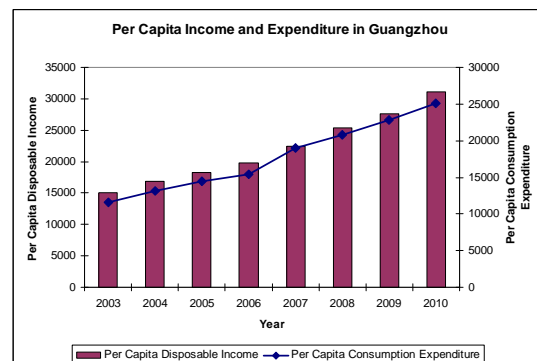


Figure 7. Guangzhou's per capita income.

Source: *Guangzhou Statistical Yearbook*, various issues.

On the supply side, land supply and interest rate play a role in housing price movements (Peng & Wheaton, 1994; Ho and Ganesan, 1998; Ley & Tutchener, 2001). Ge and Lam (2002) built a housing price model for Hong Kong and suggested that household income, population, land supply and government policy are important factors contributing to house price movements in Hong Kong.

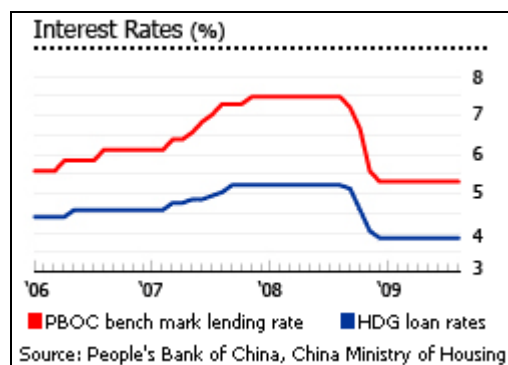


Figure 8. Interest rates in China.



Figure 9. Unemployment rate in Guangzhou  
Source: *Guangzhou Statistical Yearbook*, various issues.

The average supply of new houses in Guangzhou over the last 10 years has been maintained at 3.5–4.5 million square meters. Only 26,339 houses were presold that were approved by the government in the first half 2010, totalling 2.94 million square meters, 14.1 percent less than the same time in previous year. The new policies also include restrictions on developers who must have half of the capital for land deposit and take not deposits for presales without approval. The measures have resulted in developers lacking motivation and making it impossible for real property development and construction, thus reducing chances of speculation on land and raising selling prices. However, the imbalance in demand for and supply of housing will be worse and cause further pressure on house prices due to lack of construction.

As a result of the current policy constraints for home ownership, continual increase of average income, low interest rate, relative low unemployment with gradual population growth in Guangzhou, as well as short supply, the demand for housing will be maintained. The housing market in the short term would likely be stable; however, in the long term, housing price would be expected to rebound dramatically.

### *Conclusion*

This paper has studied housing market performance in China, in particular the city of Guangzhou. The study also describes the evolving housing policies for the last five decades in China. The impacts on housing price and construction from the recent tightened housing policies are discussed. It was found that housing prices decreased rapidly, from 12,955 to 10,000 yuan per square meter from May to June 2010, i.e., 23% lower than in the previous month after the anti-speculative housing policies were released in April. The prices have stayed around 10,000 yuan level for about three months, and then under pressure rose again. The market evidence suggests that the policy was effective in dampening an increase in housing prices. Second- and third-home purchasers were restricted from the housing market through raising the amount of down payments. Developers found it difficult to access land and cash from presales; thus, land speculation could be prevented. However, the effects of the policies may be sustained because of stronger demand pull factors and shortage of housing supply to meet the high demands for housing. The survey results of the China Real Estate Research Center and experts' opinions indicate a need for government to implement anti-speculative policies. The results also revealed concerns and doubts whether the policies could actually work well to stabilize the housing price. The study of the Guangzhou housing market performance suggests that recent housing policies could affect housing price, which may remain relatively stable in the short term. However, in the long term, housing prices will rebound, when there is an imbalance of demand for and supply of housing. The sustainable high prices reduce homeownership and housing affordability. The housing policies focusing on administrative order alone may be not the best for the current market condition. Instead, a housing policy that works with the increasing housing supply and combines monetary and fiscal instruments that lead to dispersed purchasing housing in different periods could be suggested. Further study is needed in this area.

## References

- Case, K.E., & Shiller, R. J. (1990). Housing price dynamics within a metropolitan area. *Regional Science and Urban Economics*, 26, 387–407.
- China Real Estate News (2010a). China's housing price to income ratio in 2009 reached a record high of 8.03. Retrieved 12 October 2010 from, <http://www.chinarealestatenews.com/news/2010-05-21/82972>.
- China Real Estate News (2010b). Beijing hard to buy a house you report income to buy a suite for 25 years. Retrieved 12 October 2010 from, <http://www.chinarealestatenews.com/news/2010-07-19/64276/>.
- China Real Estate News (2010c). Guangzhou property market reopened Friday night line-up that line up on Sundays. Retrieved 12 October, 2010 from <http://www.chinarealestatenews.com/news/2010-09-13/47904/>.
- China Real Estate News (2010d). Beijing-Guangzhou and Shenzhen, list of control measures around the “Beijing 12” the most severe. Retrieved 12 October, 2010 from, <http://www.chinarealestatenews.com/news/2010-05-30/21500/>
- China State Council (2010). A notification on enhancing stable and healthy development in the real estate market. Retrieved 12 October 2010 from, [http://www.gov.cn/zwggk/2010-04/17/content\\_1584927.htm](http://www.gov.cn/zwggk/2010-04/17/content_1584927.htm).
- Chong, G. (2010). Shanghai restricts home ownership to cool property market. *Business News, Channelnewsasia*. Retrieved 11 October 2010 from, <http://www.channelnewsasia.com/stories/economicnews/view/1086399/1/.html>.
- Chovanec, P. (2009a). China's real estate riddle. *Far East Economic Review*. Retrieved 12 October 2010 from, <http://www.feer.com/economics/2009/june53/Chinas-Real-Estate-Riddle>.
- Chovanec, P. (2009b). China goes wrong way on property taxes. Retrieved 12 October 2010 from, <http://chovanec.wordpress.com/2009/12/18/china-goes-wrong-way-on-property-taxes/>
- Cook, T. J., & Scioli, F. P. (1972). A research strategy for analysing the impacts of public policy. *Administrative Science Quarterly*, 17(3), 328–339.
- Deng, L., Shen, Q.Y., & Wang, L. (2009). Housing policy and finance in China: A literature review. Retrieved 12 October 2010 from <http://www.chinaplanning.org/Publications/Lan%20Deng%20-%20Housing%20Policy%20and%20Finance%20In%20China.pdf>,
- Feng, W. (2003). Housing improvement and distribution in urban China: Initial evidence from China's 2000 census. *The China Review*, 3(2), 121–143.
- Fung, E. (2010). Shanghai limits home purchases. *The Wall Street Journal – Asia*. Retrieved 11 October 2010 from, [http://online.wsj.com/article/SB10001424052748704696304575538851946957686.html?mod=goglenews\\_wsj](http://online.wsj.com/article/SB10001424052748704696304575538851946957686.html?mod=goglenews_wsj).
- Ge, X. J., & Lam, K. C. (2002). Building a house prices forecasting model in Hong Kong. *The Australian Journal of Construction Economics and Building*, 2 (2), 57–70.
- Global Property Guide (2010). Prices heat up in China's erratic housing market. Retrieved 11 October 2010 from, <http://www.globalpropertyguide.com/Asia/China>.
- Global Times (2010). Shanghai aims to tackle speculation. Retrieved 12 October 2010 from, <http://english.peopledaily.com.cn/90001/90778/90860/7159336.html>.
- Groves, R., Murie, A., & Watson, C. (eds.) (2007). *Housing and the new welfare state: Perspectives from East Asia and Europe*. Aldershot: Ashgate.
- Hancock, D. R., & Algozzine, B. B. (2006). *Doing case study research: A practical guide for beginning researchers*. New York: Teachers College Press.
- Ho, W., & Ganesan, S. (1998). On land supply and the price of residential housing. *Journal of Housing and the Built Environment*, 13(4).
- Hui, E. C. M., & Gu, Q. (2009). Study of Guangzhou house price bubble based on state-space model. Gale: Cengage Learning. Retrieved on 12 October 2010 from <http://www.thefreelibrary.com/Study+of+Guangzhou+house+price+bubble+based+on+state-space+model%2F...-a0219062357>
- Javers, E. (2009). Is China headed toward collapse? Politico.com. Retrieved 12 October 2010 from, [http://www.politico.com/news/stories/1109/29330\\_Page2.html](http://www.politico.com/news/stories/1109/29330_Page2.html).
- Knowledge at Wharton (2009). Deconstructing China's property market: What's behind the bubbles? Retrieved on 14 October 2010 from, <http://www.knowledgeatwharton.com.cn/index.cfm?fa=viewfeature&articleid=2154&languageid=1>.

- Levin, E. J., & Wright, R. E. (1997). Speculation in the housing market? *Urban Studies*, 34(9), 1419–1437.
- Ley, D., & Tutchener, J. (2001). Immigration, globalization and house price in Canada's gateway cities. *Housing Studies*, 16, 199–223.
- Li, S. M., & Yi, Z. (2007). Financing home purchase in China, with special reference to Guangzhou. *Housing Studies*, 22(3), 409–425.
- Lou, J. B., & Palomar, J. (2006). *Housing policy in the People's Republic of China: Successes and disappointments*. Paper presented at the United Nations World Urban Forum, June 19–23, 2006, Vancouver, Canada.
- Ministry of Finance, PR China (1994). Caizhengbu Guowuyuan Zhufang Zhidu Gaige Xiaozu zhongguo Renmin Yinhang Guanyu Jianli Zhufang Gongjijing Zhidu de Zanxing Guiding (Interim provisions on establishing the system of housing provident Fund) (Document No. 126). Retrieved 3 December, 2007 from, <http://www.realestate.gov.cn/file.asp?recordno = 2450&teamno = 103&line = 100>.
- National Bureau of Statistics of China, various issues. Retrieved 20 September 2009 from, <http://www.stats.gov.cn/english/>.
- National Bureau of Statistics of China (2010). Statistics: New house prices continue to uphold the regulation of the initial completion of statistical programs. *China Real Estate News* (2010). Retrieved 12 October, 2010 from, <http://www.chinarealestatenews.com/news/2010-09-12/34226/>.
- Oliver, C. (2009). World Bank sees no property bubble in China. *MarketWatch*. Retrieved 12 October, 2010 from, <http://www.marketwatch.com/story/world-bank-sees-no-bubble-in-chinese-real-estate-2009-11-04>.
- Peng, R., & Wheaton, W. C. (1994). Effect of restrictive land supply on housing in Hong Kong: An econometric analysis. *Journal of Housing Research*, 5(2), 263–292.
- Powell, B. (2010). China's property: Bubble, bubble, toil and trouble time. Retrieved on 12 October, 2010 from, <http://www.time.com/time/magazine/article/0,9171,1971284,00.html>.
- Reichert, A. K. (1990). The impact of interest rates, income and employment upon regional housing prices. *Journal of Real Estate and Economics*, 3, 373–391.
- Ronald, R. (2008). *The ideology of home ownership: Homeowner societies and the role of housing*. Palgrave: Macmillan.
- Sou fang (2010). Retrieved 14 October, 2010 from, [http://www.chinadaily.com.cn/china/2010-04/21/content\\_9755404.htm](http://www.chinadaily.com.cn/china/2010-04/21/content_9755404.htm)
- Southern China Daily* (2010). Average house price 14,000 per square meter in the center six districts in Guangzhou, double in five years., Retrieved 14 October 2010 from, [http://www.google.com.hk/imglanding?q=%E5%B9%BF%E5%B7%9E%E6%88%BF%E4%BB%B7%E8%B5%B0%E5%8A%BF%E5%9B%BE&um=1&hl=zh-CN&safe=strict&sa=X&rlz=1R2ACAW\\_en&biw=1501&bih=623&tbs=isch:1&tbnid=F3lnGVnIqLeAHM:&imgrefurl=http://news.xinhuanet.com/house/2010-01/21/content\\_12847663.htm&imgurl=http://news.xinhuanet.com/house/2010-01/21/xin\\_3320107210855250145455.jpg&zoom=1&w=500&h=473&iact=hc&ei=IKG3TLXLEsblcYaKqfcl&oei=4pW3TPnDIouxcbCR6eII&esq=4&page=1&tbnh=115&tbnw=122&start=0&ndsp=26&ved=1t:429,r:2](http://www.google.com.hk/imglanding?q=%E5%B9%BF%E5%B7%9E%E6%88%BF%E4%BB%B7%E8%B5%B0%E5%8A%BF%E5%9B%BE&um=1&hl=zh-CN&safe=strict&sa=X&rlz=1R2ACAW_en&biw=1501&bih=623&tbs=isch:1&tbnid=F3lnGVnIqLeAHM:&imgrefurl=http://news.xinhuanet.com/house/2010-01/21/content_12847663.htm&imgurl=http://news.xinhuanet.com/house/2010-01/21/xin_3320107210855250145455.jpg&zoom=1&w=500&h=473&iact=hc&ei=IKG3TLXLEsblcYaKqfcl&oei=4pW3TPnDIouxcbCR6eII&esq=4&page=1&tbnh=115&tbnw=122&start=0&ndsp=26&ved=1t:429,r:2)
- Veneziani, V., & Weisenthal, J. (2010). Why Shanghai real estate is the most obvious bubble ever. *The Business Insider*. Retrieved 12 October, 2010 from, <http://www.businessinsider.com/the-chinese-real-estate-bubble-is-the-most-obvious-bubble-ever-2010-1#prices-are-way-out-of-whack-compared-to-global-standards-3>.
- Wang, Q. (2010). Government to punish property price manipulation. *China Daily*. Retrieved 14 October 2010 from, [http://www.chinadaily.com.cn/china/2010-04/21/content\\_9755404.htm](http://www.chinadaily.com.cn/china/2010-04/21/content_9755404.htm).
- Wang, Y. P., & Murie, A. (2000). Social and spatial implications of housing reform in China. *International Journal of Urban and Regional Research*, 24(2), 397–417.
- Wang, Y. (2009). Boom and gloom. *China Daily*. Retrieved 13 October 2010 from [http://www.chinadaily.com.cn/bizchina/2009-08/25/content\\_8613659\\_2.htm](http://www.chinadaily.com.cn/bizchina/2009-08/25/content_8613659_2.htm).
- Weinland, D. (2010). China's housing market: Strictest regulation to date, China Elections and Governance. Retrieved 13 October 2010 from, <http://chinaelectionsblog.net/?p=4372>.
- Wheeler, M., & Chowdhury, A. R. (1993). The housing market, macroeconomic activity and financial innovation: An empirical analysis of US data. *Applied Economics*, 385–392.
- World Bank (2010). China Gross Domestic Product in current U.S. dollars, not adjusted for inflation. *World Development Indicators*. Last updated October 2, 2010. Retrieved 11 October 2010 from, [http://www.google.com/publicdata?ds=wb-wdi&met=ny\\_gdp\\_mktp\\_cd&idim=country:CHN&dl=en&hl=en&q=china+gdp](http://www.google.com/publicdata?ds=wb-wdi&met=ny_gdp_mktp_cd&idim=country:CHN&dl=en&hl=en&q=china+gdp)

- Xu S. L. (2009). An affordable home for every family, Chongqing official promises. *Global Times*. Retrieved 12 October 2010 from, <http://china.globaltimes.cn/society/2009-09/465135.html>.
- Ye, J. P. (2007). China housing policy and housing market. Retrieved 12 October 2010 from, [http://www.prrs.net/Papers/Ye\\_China\\_Housing\\_Policy\\_and\\_Housing\\_Market.pdf](http://www.prrs.net/Papers/Ye_China_Housing_Policy_and_Housing_Market.pdf).
- Ye, J. P., Wu, D.Y., & Wu, J. (2006). A study on the Chinese housing policy during social transition: Practice and development. *Housing Finance International*, 20(3), 50–58.
- Yin, R. K., & Heald, K. A. (1975). Using the case survey method to analyse policy studies. *Administrative Science Quarterly*, 20(3), 371–381.
- Yu, T. Y. (2010). Price pressure on the home front. *China Daily*. Retrieved 13 January 2010 from, [http://www.chinadaily.com.cn/cndy/2010-01/04/content\\_9258220.htm](http://www.chinadaily.com.cn/cndy/2010-01/04/content_9258220.htm).
- Zha, M. J. (2009). Pitching a tent and a message. *Shanghai Daily*. Retrieved 13 January 2010 from, [http://www.shanghaidaily.com/sp/article/2009/200912/20091209/article\\_422094.htm](http://www.shanghaidaily.com/sp/article/2009/200912/20091209/article_422094.htm).
- Zhang, J., Li, D. Y., & Luo, S. L. (2010). House prices low in August will rise in September. Retrieved 14 October 2010 from, <http://house.21cn.com/newhouse/price/2010/08/01/7703107.shtml>.



# PACIFIC RIM REAL ESTATE SOCIETY (PRRES)

[HOME](#) [PRPRJournal](#) [Conference](#) [Proceedings](#) [Search](#) [About](#) [Newsletter](#) [Membership](#)

## 17th Annual Pacific Rim Real Estate Society Conference

Sunday 16 to Wednesday 19 January 2011  
Gold Coast, Australia

*Proudly supported by*



Queensland University of Technology  
Brisbane Australia



BOND  
UNIVERSITY  
MIRVAC SCHOOL OF  
SUSTAINABLE DEVELOPMENT



University of the  
Sunshine Coast  
Queensland, Australia

### [Conference Proceedings](#)

[Conference Program](#)

[The Conference in Pictures](#)

[Conference Web Site \(At Bond University\)](#)

## Conference Summary

Bond University's Institute of Sustainable Development & Architecture was delighted to host the three-day 17th Pacific Rim Real Estate Society Conference on the Gold Coast with the support of Queensland University of Technology and the University of the Sunshine Coast in January this year. With the theme 'Climate Change and Property: its impact now and later' the conference was among the one of the most successful conferences with 165 delegates attending the main conference that included 110 delegates attending the Welcome Reception and 140 delegates enjoying the conference dinner.

Opened by Prof Robert Stable, Bond University Vice Chancellor & President the conference highlighted different aspects of the main conference theme of Climate Change and Property: its impact now and later with 116 thought-provoking academic paper presentations. These included Climate Change and Environmental Issues, Energy Efficiency and Property, Sustainability and the Built Environment, Specialist Property, Housing Markets and Housing Affordability, Commercial Property & Valuation, Property Management & CRE, Property Market Analysis, Property Rights/Legislation and Property Issues, Development, Education, Finance and Investment, and Legislation and Legal, Rural Issues.

Inspiring keynote presentations were delivered by Meg McDonald-CEO Carbon Trust Australia, Prof George Earl-Bond University's Institute of Sustainable Development & Architecture, Govindan Nair-Lead Economist The World Bank (retired) and President of Hemispheres Solutions LLC USA, The Hon Tom Roper-President The Australian Sustainable Built Environment Council, Brian Stewart-CEO & General Council Urban Development institute of Australia, Stephen Butler-National Engineering & Operations Manager Mirvac, Prof Philip Follent-Head of School Soheil Abedian School of Architecture Bond University, Prof Brian (Tony) Ciochetti-Thomas G. Eastman Chair and Chairman Center for Real Estate Massachusetts institute of Technology, Prof Mike Hefferan-State President QLD Division Property Council of Australia.

# PACIFIC RIM REAL ESTATE SOCIETY (PRRES)

[HOME](#) [PRPRJournal](#) [Conference](#) [Proceedings](#) [Search](#) [About](#) [Newsletter](#) [Membership](#)

# Proceedings from the PRRES Conference - 2011

## 17th Annual Pacific Rim Real Estate Society Conference

### Gold Coast, Australia, January 16-19, 2011

[Delegate Papers - Listed by Author](#)

[Delegate Papers - Including Keywords and Abstract](#)

---

Proudly supported by



Queensland University of Technology  
Brisbane Australia



BOND  
UNIVERSITY  
MIRVAC SCHOOL OF  
SUSTAINABLE DEVELOPMENT



University of the  
Sunshine Coast  
Queensland, Australia

---

## Delegate Papers

Papers shown as "**refereed**" have been refereed through a peer review process involving an expert international board of referees appointed by the PRRES Board and the Conference organisers. Full papers were refereed with authors being required to make any changes prior to presentation at the conference and subsequent publication as a refereed paper in these proceedings. Non-refereed presentations may be presented at the conference without a full paper and hence not all non-refereed presentations and/or papers appear in these proceedings. All authors retain the copyright in their individual papers.

---

Hera Antoniades, [Regulatory Theory And Protection Of The Principal: White Collar Crime Fraud In Occupational Licensing For Property Agents](#) **Refereed**

Kamalahasan Achu, [Do Clients Influence Valuations Carried Out For Financial Reporting Purposes? Some Evidence From Malaysia](#)

Azlina Binti Md. Yassin, Prof. Sandy Bond and Assc. Prof. John McDonagh, [The Effectiveness Of The Riverfront Development Guidelines In Malaysia](#) **Refereed**

Dr Bishna Bajracharya, Dr. Iraphne Childs and Dr Peter Hastings, [Climate Change Adaptation Through Land Use Planning And Disaster Management: Local Government Perspectives From Queensland](#) **Refereed**

Andrea Blake and Prof Chris Eves, [Valuers' Liability: The Impact Of Torts Reform In Queensland](#) **Refereed**

Bond, Pacifici and Newman, [Sustainability In Housing](#)

Steven Boyd, [The Demise Of The Property Developers – A Review Of The Systemic Influences On The Sunshine Coast](#) **Refereed**

Terry Boyd and Steven Boyd, [Valuing The Land Component Of Improved Investment Property For Tax Purposes](#)

Prof. Chris Eves and Lyndall Bryant, [Sustainability And Mandatory Disclosure In Queensland An Assessment Of The Impact On Home Buyer Patterns](#) **Refereed**

- Greg Costello and Chris Leishman, [Using Option Pricing Theory To Value Development Land](#) **Refereed**
- Lucy Craddock, ["Property, Planning And Purpose: Legal Concerns Facing Broadband Roll Out In Australia"](#) **Refereed**
- Dr. Zhi Dong, [Foreign Exchange Rate And Capital Structure Decision](#)
- Professor Chris Eves, [Tracking The Brisbane Residential Property Market: Post Gfc](#) **Refereed**
- Jeremy Gabe, [Market Implications Of Operational Performance Variability In Certified Green Buildings](#) **Refereed**
- Dr Janet Xin Ge, ["The Impacts Of Anti-Speculation Policies On House Price Movements: The Case Of Guangzhou, China"](#) **Refereed**
- Don Gilbert, [Matching Market Demand to Supply of Retail Space via more Accurate Market Rental Valuations for More Efficient Development and Use of Retail Space](#)
- Peter J Glynn, Dr Ros Taplin, [Climate Change Related Labour Market Implications For The Construction Industry](#) **Refereed**
- M. H. Hanis, C. Susilawati and B. Trigunaryah, [Asset Identification: Addressing The Climate Change In Public Asset Management Process](#) **Refereed**
- Professor Michael J Hefferan, [Changing Demands For Property Professional Service And Its Impact On Tertiary Courses – An Australian Study](#) **Refereed**
- Jukka Heinonen and Seppo Junnila, ["Comparing Climate Change Effects Of Rural And Metropolitan Lifestyles, A Hybrid?LCA Approach"](#) **Refereed**
- Christopher Heywood, Daoren Lai and Eckhart Hertzsch, [Normal - Sustainability Upgrades To Office Buildings: A Survey Across Australian Climatic Zones](#) **Refereed**
- Janine Irons and Lynne Armitage, ["The Value Of Built Heritage: Community, Economy And Environment"](#) **Refereed**
- Angelo Karantonis, [Is Australia Selling Off Its Real Estate?](#) **Refereed**
- Seung-Young Jeong and Jinu Kim, [A Study Of Retail Property Prices In Seoul](#) **Refereed**
- Valerie Kupke, Peter Rossini and Sharon Yam, [An Exploration Of Female Home Ownership Patterns In Australia](#) **Refereed**
- Valerie Kupke and Peter Rossini, [An Exploratory Analysis Of Land And House Price Data Over Time](#) **Refereed**
- Matti Kuronen, Jukka Heinonen, Christopher Heywood, Seppo Junnila, Jukka Luoma-Halkola And Wisa Majamaa, [Customerships In Urban Housing Redevelopment – A Case Study On Retrofitting A Suburb](#) **Refereed**
- Professor Craig Langston, [On Archetypes And Building Adaptive Reuse](#) **Refereed**
- Chyi Lin Lee and Richard Reed, [Volatility Decomposition Of Australian Housing Prices](#) **Refereed**
- Junxiao Liu and Kerry A. London, [New Housing Supply And Residential Construction Costs In Australia: A Panel Ecm Approach](#) **Refereed**

David Parker, Tony Lockwood and Wayne Marano, [Mass Appraisal Certification Standards – The Spatial Dimension](#) **Refereed**

Jarmila Machajdiková Daniela Špirková Janka Bábelová, [The Historical Development Of Land Registration And Its Impact On Real Estate Development In The Central Europe With The Emphasis On Slovakia](#) **Refereed**

Michael Y Mak and Clinton J Peacock, ["Social Sustainability: A Comparison Of Case Studies In UK, USA And Australia"](#) **Refereed**

KF Man and KW Chau, [Does The Building Cycle Co-Move With Property Cycle – Empirical Evidence From Hong Kong](#) **Refereed**

KF Man, SY Lau, [Valuation Of Raw Land In Hong Kong- A Sequential Compound Option Approach](#) **Refereed**

Vince Mangioni, [Property Investment Advice Whos Who In The Investment Advice Zoo?](#) **Refereed**

Noorsidi Aizuddin Mat Noor & Chris Eves, [Malaysia High-Rise Residential Property Management: 2004-2010 Trends & Scenario](#)

Brett McAuliffe, [Implications Of The National Rental Affordability Scheme On The Valuation Of Residential Property](#) **Refereed**

Mike Todd and John McDonagh, [Solatium Payments For Public Works - An International Comparison](#) **Refereed**

P.Brent Nahkies, [Retrofitting – CPR For The Central City?](#)

Dr Daniel OHare, [The Development Of Knowledge Nodes And Health Hubs As Key Structuring Elements Of The Sustainable City Region](#) **Refereed**

Timothy OLeary, [Australian Residential Energy Standard Assessment And Rating Framework – A National Response For 2010/2011 Frameworks](#) **Refereed**

Geoff Page, [Successful Farmers Markets](#) **Refereed**

Professor David Parker, [REIT Investment Decision Making: A Practitioner Survey](#) **Refereed**

Professor Richard Reed and Stefanie Forster-Kraus, [Housing Affordability From A Global Perspective – A Comparison Between Housing Demography In Australia And Germany](#) **Refereed**

Richard G. Reed, Sara J. Wilkinson and Georgia Warren-Myers, [Energy Efficiency And Property Values: A Discussion Paper](#)

Richard Reed, Sara Wilkinson, Anita Bilos and Karl-Werner Schulte, [A Comparison Of International Sustainable Building Tools – An Update](#)

Dr Kristy Richardson and Dr Leone Hinton, ["A Bachelor Of Property, Attrition And Flex Students: A Preliminary Examination Of The Challenges Of Retaining Students"](#) **Refereed**

Dr Steven Rowley and Professor Fiona Haslam-McKenzie, ["Sustaining The 3Rs - Rural, Regional And Remote Housing Markets In Western Australia"](#) **Refereed**

Dr Song Shi and Iona McCarthy, [Dairy Farmland Prices And Return Expectations In New Zealand](#)

Dr Song Shi, [Serial Persistence And Risk Structure Of Local Housing Market](#)