China's Political Cycle and China Buyers in Singapore Property Market*

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Abstract

To secure wealth is a key motivation of allocating assets overseas. The political leadership transition occurs in China every five years. The shift of leadership brings huge uncertainty to China's society, especially wealthy people. With the private residential property transaction data in Singapore, this paper shows that the number of transactions by China mainland buyers increases by half during China's political transitions, comparing with that by Singapore local, Malaysia, US and Hong Kong buyers.

Keywords: Political Transition; Foreign Buyers; Property Market; China

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1 Introduction

The globally capital and people flows increased these decades, and reshaped real estate market. Foreign buyers have been playing increasing important role although real estate market is thought to be regional and local traditionally. In 2007, about 10% volumes of real estate sales in US were to foreigners (Real Capital Analytics, 2011). This number jumped to 35% in 2013 (National Association of Realtors, 2014). In the Asia Pacific region, liquidity from foreigners is also very strong, although the rapid rise in residential house prices has resulted in policymakers in the region taking more protectionist stances as domestic affordability becomes an issue[1].

Chinese buyers attack a lot of attentions since they contributed huge volume of transactions in foreign real estate market recently[2]. In 2013, Chinese buyers are the biggest international players in the US housing market and some states are seeing billions of dollars in real estate deals as a result, according to the National Association of Realtors. Chinese investors buy about 12% of new Australian homes. As overall foreign investment in Australia has dropped, mainland Chinese buyers still spent 5.5 billion USD in 2013 or a 40% increase[3].

China political system has been leading by the Communist Party of China (CPC) since 1949. The CPC holds the local and national congress, governments, military force, judicial system and state-own enterprises. CPC appoints the leader of every public sector from up to bottom. The leaders have absolute power in their owning sectors. Most of laws and regulations are easily amended by relative officials. Under this political structure, the shift of leadership implies the significant change of game rule.

After the Culture Revolution, CPC strengthened its internal governance and build strict retirement and tenure system. Every five years, CPC holds its owning congress and select a large number of CPC committee members at both local and national level. Concurrently, the leadership in some public sectors is shifted. New leaders are appointed to reflect their position in the party. The political transition during this period contains large uncertainty in public policy due to the absolute power of new leaders. Wealthy Chinese are motivated to find a way to hedge the risk.

[1]The additional buyers stamp duties in Hong Kong and Singapore are good examples. It proposed additional taxes for foreign buyers in their local markets.

[2]For example, see reports in press: Les Christie, Chinese Homebuyers Are Flocking to These U.S. States, CNN 23/07/2014; John Gittelsohn, Chinese Cash-Bearing Buyers Drive U.S. Foreign Sales Jump, Bloomberg, 09/07/2014.

[3]See Australian Foreign Investment Review Board Annual Report, http://www.firb.gov.au/.

To purchase a house overseas, especially in the countries with stable political environment and excellent living condition, is the first choice of wealthy Chinese. Beyond grabbing the profit of investment, security is the priority. Some Chinese also take their oversea property as the backup of their life. Emigration is the Plan B once their career is destroyed in China[4].

Singapore is one of the favorite locations for Chinese buyer. It has very deep economic and social connection with China. The majority local ethic group, about 74.1% of Singapore residents, is Chinese, who are earlier immigrants from south coast of China. Singapore has very stable political environment. There are not many opposition parties out there, and current government is quite efficient and totally devoted to growth. Hence, there are hardly any coups, resistance, or even clashes. Crime rate is far below than what one gets to see across other countries. It results from the strict law enforcement. Singapore has a very sound economy even as it is the world's fourth leading financial hub.

Over 80% of residential property in Singapore is in public housing market highly regulated by government. In the remaining private property market, foreigners could only acquired apartments in buildings higher than six stories or in approved condominium developments based on the Residential Property Act in 1973. Since 2000s Singapore government relaxed the restriction of foreign buyers to boost dull property market as declining housing wealth causes financial hardship for elderly Singaporean[5]. First, foreigners were allowed to buy land parcels and completed homes at Sentosa Cove since August 2004. In mid-2005, the government removed the restriction for foreigners to own apartments below 6 stories, raised the loan-to-value limit and reduced the cash down payment. Between 2005 and 2007, foreign buyers accounted for 10% and 15% sales in the entire private residential market and the presale segment, respectively. In 2013, the transactions by foreign buyers jump to 27% of the total volume.

We observe the transactions data by buyers from different countries[6] in this paper and find that China buyers exposed very strong demand during the political transition period, 2001-2002, 2006-2007 and 2011-2012. The data show that the transaction volumes of China buyers during China political transitions have an

[4]Hurun Luxury Consumer Survey 2014 shows that 60% of Chinese wealthy people have or are seriously considering emigration; and 64% of wealthy Chinese are already engaged in overseas investment or immigration.

[5]For the related literature on Singapore property market, see, for example, Ong and Sing, 2002; Deng, McMillen and Sing, 2012; Liao et. al., 2014.

[6]China, Malaysia, US and Hong Kong buyers are analyzed below. Hong Kong is a Special Administrative Region (SAR) of China with highly independent political system. To simplify, we still use countries to indicate these four countries/regions.

unusual increase relative to other buyers. And this pattern does not exist for buyers from Malaysia, US and Hong Kong. Given the fact that China buyers has a dramatic increase during these periods in Singapore Market, we include the economic and environment dynamics between the origin countries of buyers and Singapore to eliminate the variations over time. After controlling them, transactions by Chinese buyers increase by a half during the political transitions. The results are robust and validated by different subsamples and econometric models.

Our estimation suggests that the China's political cycle is related to their investment on overseas assets. It echoes the previous studies on political cycle, which are usually modeled in a democracy country with two competitive parties (for example, Nordhaus, 1975; MacRae, 1977; Alensina and Sachs, 1988). The incumbent stimulates the economy close to election time in order to increase its chances of reelection. At the beginning of the new term, the inflationary effects of the preelectoral expansion are eliminated with a recession. The behavior of the two parties is identical, and a cycle results in equilibrium. Empirical evidences confirm this pattern in both US (Beck, 1987; Golden and Poterba,1980) and other countries (Alensia and Roubini, 1992). Few studies discuss the political cycle in China due to lack of competition from opposite parties. The impact of politics on economy sources from the career incentives of CPC members instead (Li and Zhou, 2005; Kung and Chen, 2011). Career potentials of local leaders can explain the variations of economic growth. However some economic activities still coincides with political cycle in China, such as luxury watch import (Lan and Li, 2014). As an ideal medium of corrupt exchange, it has a strong demand during political transitions.

The volume of transactions by Chinese buyers fluctuates periodically with political transitions. It is resulted from the investors' responses to the potential political risks. Macroeconomists claim that investors prefer to secure their wealth. Governments in unstable and polarized political systems are lack of strict legal infrastructure, resulting in poor quality of property rights and consequently a low level of domestic investment (Svensson 1998, Tornell and Velasco 1992). In property market, political uncertainty weakens the value of real estate due to poor protection of property right. Tu and Bao (2009) find that investors of Hong Kong are unwilling to pay a premium for the freehold housing during the political transition in 1997 when UK government transfered the sovereignty over Hong Kong to China.

This study is also complementary to the previous work on international real estate investment[7]. They show that both real estate only portfolios (Eichholtz et al., 1995) and mixed-asset portfolios combining both real estate and financial assets

[7]See a review by Sirmans and Worzala (2003).

(Cheng et al., 1999; Hoesli, Lekander and Witkiewicz, 2004; Newell and Webb, 1996) with international real estate outperform those without, hence indicating that international diversification appears to be important.

The remaining part of this paper is arranged as following. Section 2 briefs major risks during the political transition in China. The data is introduced in section 3. Section 4 shows the empirical analysis. Section 5 concludes.

2 Risks in China Political Transition

China government plays a dominant role in the economy. Besides the normal regulation of business and enforcement of laws, China government fully controls land market, and has heavily influence on capital and labor market (Gordon and Li, 2011; Lan and Li, 2013). Given the strong power of China government, the shift of political leadership imports huge uncertainty to China's society, especially for the wealthy people who are usually the entrepreneurs and high level officials. The impacts of leadership shift are bidirectional. From the bottom to up, some entrepreneurs and officials worry the disruption of connections since it means they will lose a lot of advantages to operate business and develop career.

The political connections are extremely important in China, especially for the connection to high level officials, because the connections favor entrepreneurs to acquire cheap land, obtain government orders, access capital market, and borrow bank loans[8]. The connections are even more important for officials in China government. It is a critical factor of officials' promotion. Local leaders who have connections with central are more easily to expose the success and cover the fault. If two governors have the same performances and personal profiles, the one who has central connection is more likely to be promoted (Li and Zhou, 2005)[9].

When the leadership shifts every five years, a large number of political connections are reconstructed in China society. Some entrepreneurs and officials lose their connections. They will be suddenly switched from a favorable position to an unfavorable position. It implies their income and career have a structural broken. To stay in China does not have many meanings for these rich people; and then they

[8]Literatures provide evidences on capital market in China, see, for example, Shih (2004), Li et. al. (2008). There are also related researches on emerging market (Khwaja and Mian, 2005) and developed market (Fisman, 2001).

[9]Jia, Kudamatsu and Seim(2013) show political connections favor the promotion of governors; and governors will put more efforts on local economic growth. Jia (2014) argues that heavily incentived politicians would like to promote growth but growth has its social costs such as pollution. Province whose leaders have connection with central is more likely to be heavily polluted due to the high career incentives.

choose to emigrant to other countries.

Second, China political leaders have absolute powers in their owning jurisdictions. Policy regime shift usually comes with leadership transition. It reshapes China society from up to bottom. Low capital investment and economic growth are observed in China with the timing of the Central Party Congress. Although, China mode, economic decentralization but political centralization, is fundamentally different from western mode, political cycle still exits. Local political leaders manipulate the economic policy in their jurisdictions and only enhance the economic performance when you are considered to be promoted (Li, 2011).

China new political leaders also prefer to enforce anti-corruption at the beginning of their terms. It is clear that corruption in China is both widespread and financially damaging. China was ranked 80th out of 178 countries in Transparency International's Corruption Perceptions Index in 2013[10]. Each new leadership will almost certainly feel some pressure to take additional and decisive actions in order to be seen as cracking down on corruption as China's leaders try to convey to the general populace that CPC is effectively battling corruption. Since most China vested interests are evolved into corruption, the enforcement of anti-corruption challenges the ecosystem of the privileged class and motivates them to find a safe place.

3 Data

The primary data source is Singapore Urban Redevelopment Authority's (URA) database, the Real Estate Information System (REALIS), which provides the transaction volume of private property in Singapore by buyers' nationality over time. Besides the transaction volume by China buyers quarterly, we also obtain the data by buyers from Malaysia, US and Hong Kong. They are all the top 10 origins of foreign buyers in Singapore private property market. Malaysia is a neighbor of Singapore, and it shares the similar culture and has strong social connections with Singapore. Malaysia buyers top the list of foreign buyers in our sample. US is one of the major western origins of foreign buyers, ranked after UK and Australia. It contributes 0.5% of the total transaction in Singapore market over our sample period. Hong Kong is a Special Administrative Region (SAR) of China and has little common political system as China mainland. Over 1,200 transactions are reported in our sample by Hong Kong buyers and about 0.2% of the total transactions.

Our sample starts from 1998Q1 to 2013Q4, and covers three complete episodes of leadership transitions that occurred during the 16th CPC congress in 2001 and

[10]See http://www.transparency.org/.

2002, the 17th in 2006 and 2007, and the 18th in 2011 and 2012. Figure 1 visualizes the transaction trends by buyers from different countries quarterly. The vertical axis is the log of transaction volumes and the horizontal axis is the time. Leadership transitions are marked by shaded bar. The transactions by China buyers increase dramatically in our sample. In 1990s, China buyers contribute the similar transactions volume as US buyers. But the number is close to that by Malaysia buyers after 2009 who are the largest part of foreign buyers. The increasing trend of China buyers is very stable. During the subprime crisis in 2008, the transactions by China buyers shrink weakly relative to buyers from other countries. Figure 2 shows the ratio of transactions by buyers from different countries. It shows the dramatic increase of China buyers in Singapore private property market more clearly. In 2012Q3, China buyers make 10% of transactions in Singapore market.

[Insert Figure 1 and 2 about Here]

Our empirical analysis also controls some economic and environmental factors between the origin and Singapore. Table 1 shows the summary statistics. The relative GDP per capita is defined as the ratio of GDP per capita between each country and Singapore; and the relative PM10 is the ratio of average concentration of particulate matter up to 10 micrometer between each country and Singapore. The GDP per capital and PM10 in each country are obtained from the World Bank. The data is annually and expanded to quarterly. The income dispersion is also used to control the inequality, and defined as the ratio of income share of the top 20% income earners to the bottom 20%. This information on China and Malaysia is from World Bank and available every three years. And US income information is obtained from US census and it is an annual data. Hong Kong census releases the income dispersion every five years. The missing data is generated by interpolation among different years from available data, and the control variables are assumed to be constant among different quarters in one year.

[Insert Table 1 about Here]

4 Empirical Analysis

In this section, we empirically show the significant increasing transactions by China buyers in Singapore property market during the political leadership transitions in 2001-2002, 2006-2007 and 2011-2012. Singapore local, Malaysia, US and Hong Kong buyers are considered as control group.

4.1 Basic Analysis

In the first step, we simply do a comparison of transaction volumes between buyers from China and other countries. We implement a *Different-in-Different* model to capture the different performance of China buyers among political transitions. In the analysis, the transactions by China buyers over times are in the treatment group; and the transactions by other countries buyers are set as control group respectively. The empirical specification is as following:

$$\ln(V_{i,t}) = \beta T_i \times C_i + \tau_t + r_i + \epsilon_{i,t} \tag{1}$$

where $V_{i,t}$ is the total transaction volumes by buyers from country i in quarter t; τ is a vector of quarter dummies to capture the time dynamics; and r is a vector of country dummies to show the variations among countries. T_t is the political transition dummy. It is equal to 1 during 2001-2002, 2006-2007 and 2011-2012; otherwise 0. C_i is a China dummy to indicate whether the transaction is from China buyers. It is equal to 1 if the transaction is made by China buyers; otherwise 0.

Table 2 reports the results, and Huber-White robust standard errors are included[11]. Panel A, B, and C split our sample to three periods, i.e.1998-2002, 1993-2007, and 2008-2013. Each sub-period only includes one political transition. Panel D uses three dummies to distinguish political transitions in different periods. Panel E shows the full sample regression. In different columns, we also try different control groups. In Column 1, we compare China buyers with Singapore local buyers. The results in Panel A and Panel C report a significant coefficients on the interacted terms between political transition dummy and China dummy. The coefficient in Panel B is positive but insignificant. The transaction volume by China buyers have a significant increase in 2001-2002 and 2011-2012 when China political leadership shift occurs. The coefficients on the interacted transition 2006-2007 and 2011-2012 dummies are positive and significant in Panel D. The coefficient on interacted transition 2001-2002 dummy is significantly negative since we do not consider the dramatic increase of China buyers in 2000s. Our full sample regression reports a positive increase of transaction volumes during transition but insignificant.

[Insert Table 2 about Here]

Column 2-3 use transactions by Malaysia, US and Hong Kong buyers instead of Singapore local as control group. The results are similar with Column 1. Most

[11] Huber-White robust standard errors are reported in all tables of this paper if not particularly marked.

coefficients on the interacted political transition dummies with China dummy are positive and significant, especially during the later political transition. The negative and insignificant coefficients are found for the earlier political transitions. It is resulted from the increase trend of transactions by China buyers. Column 5 includes the transactions records by foreign buyers from Malaysia, US and Hong Kong and pools them together with controlling country fixed effects. The results are consistent. The full sample regressions in Panel E report averagely number of transactions by China buyers increase by 41.6% comparing with that by other countries during China political leadership shift.

4.2 Placebo Test

We also repeat our empirical analysis as shown in Table 2 by using other countries buyers as treatment group and Singapore local buyers as control group. The results are reported in Table 3 as a placebo test. The logic here is that the motivation does not exist for other countries buyers if China buyers are motivated by the uncertainty during political transition.

[Insert Table 3 about Here]

Column 1 in Table 3 repeats the regression as shown in Column 1 in Table 2 as a comparison. Column 2-4 use Malaysia, US and Hong Kong buyers as treatment group respectively. The coefficients reported in Table 2 are on the interacted terms between political transition dummies and the treatment group country dummy respectively. Column 2 shows that the transactions by Malaysia buyers have an increase during the political transition period since all coefficients are positive and some are significant. But the value of these coefficient are much smaller than the results in Column 1. Column 3 and 4 shows US and Hong Kong buyers do not contribute more transactions during China political transitions. The placebo test confirms that the sudden increase of the transaction volume during China political transitions is only observed in the sample of China buyers.

4.3 Relative Purchase Motivation Model

As we mentioned before, our basic *Different-in-Different* analysis is possibly disturbed by the increasing trend of China buyers' transactions; and to omit variables is also a concern. We build a relative purchase motivation model in this part to consider these influences and the results are still consistent.

Our specification is as following:

$$\ln(V_{i,t}) = \beta_1 T_i \times C_i + \beta_2 \frac{GDPP_{i,t}}{GDPP_{SG,t}} + \beta_3 \frac{GDPP_{i,t}}{GDPP_{SG,t}} \times DISP_{i,t} + \beta_4 \frac{PM10_{i,t}}{PM10_{SG,t}} + \beta_5 \ln(HPI_{SG,t}) + \tau_t + r_i + \epsilon_{i,t} \quad (2)$$

where $GDPP_{i,t}$ is the GDP per capita of country i at time t; $GDPP_{SG,t}$ is the GDP per capita of Singapore at time t; $PM10_{i,t}$ is the concentration of PM10 of country i at time t; and $PM10_{SG,t}$ is the concentration of PM10 of Singapore at time t. The logic underline these variables is that the property purchase between two countries is related to their relative GDP and environmental quality. The relative GDP indicates the purchase power; and the environmental quality is a part of motivations. Since the person purchase power is not only decided by the GDP per capita but also related to income distribution. $DISP$ is the income dispersion and used to fill this gap. Finally, the housing price index, $\ln(HPI_{SG})$, is added to control the property market conditions in Singapore[12].

Table 4 reports the results of our regressions with quarterly transaction volumes by China, Malaysia, US and Hong Kong buyers from 1998 to 2013. Column 1 does not include any control variables. The coefficient on interacted term between political transition and China dummy are positive and significant at 10% level. Column 2 adds the relative GDP per capita and its interacted term with income dispersion. Buyers from high income countries contribute more transactions in Singapore property market but the income inequity weaken this effects. Column 3 consider the relative PM10. The coefficient is significantly negative. It seems that better environmental quality attacks more oversea property acquisition. The market condition in Singapore is included in Column 4. Foreign buyers are more likely to enhance their investment in a booming market. In the last column, we do not control the time fixed effects and include the transition dummy and season dummies. The results are consistent. Among these columns, the coefficients on the interacted terms between political transition and China dummy are significant. The value is around 0.5. It implies the transactions by China buyers increase by a half during political transactions after controlling other conditions.

[Insert Table 4 about Here]

We also use different method to double check our results. Table 5 repeats the regressions of Column 4 in Table 4 with different methods. The results of coeffi-

[12]The quarterly housing price index is published by Singapore Urban Redevelopment Authority (URA).

cient on interacted term are reported. Column 1 is the results with Huber-White robust standard errors as same as Table 5. The coefficient is significant with a *p-value* 0.013. Column 2 considers the possible series correlations with Newey-West standard errors. Two lag periods are added. The value of coefficient is the same and significant at 10% level. Column 3 allows the correlations in one countries and clustered the errors by four countries. The *p-value* change to 0.108. Column 4 and 5 try to eliminate the heteroskedasticity and use weighted least squares regression. The log of total transactions are used as weight in Column 4 to allow the market fluctuation over time; and the log of tourist of each countries to Singapore in specific year are the weight in Column 5. The coefficients in both columns only have a little bit change and both are significant at 5% level.

[Insert Table 5 about Here]

Table 6 runs the regressions in three different subgroups. Column 1 only includes transactions by China and Malaysia buyers; Column 2 considers the comparison between China and US buyers; and Column 3 uses Hong Kong buyers as control group. Generally, the coefficients on interacted term between transition and China dummy are all positive but significant in Column 1 and 3. It is insignificant but still positive in Column 2. China buyers are more active in Singapore market during China political transition comparing with other countries buyers. The coefficients on relative GDP per capita are all significant and positive among three subgroups. It implies income effects are determinants for foreign buyers.

[Insert Table 6 about Here]

4.4 Robustness Test

In this part, we use the transactions in central region of Singapore and freehold property as robustness test. As Liao et. al. (2014) point out the foreign liquidity to Singapore is uneven geographically. Foreign buyers have acquired more private housing properties in prime areas than in emerging suburbs. During 2004-2011, sales to foreigners on average weighed 14% of total sales in the Central region, but were only 5% in North-East and North regions. The private property in the central region of Singapore are mostly built for investment purpose. To use the subsample of central region transactions will eliminate the buyers by foreign workers in Singapore. The results are reported in Column 1 and 2 of Table 7. Column 1 uses the specification of Column 4 in Table 4 and the model in Column 2 is as same as Column 5 in Table 4. The results are quite similar to Table 4. The coefficients on interacted term are significant and positive.

[Insert Table 7 about Here]

In real estate markets, a freehold owner typically enjoys a larger bundle of property rights and higher tenure security (Asabere 2004, Tu and Bao, 2009). In Singapore private property market, freehold and leasehold property are both available. If the investors target to preserve their investment, the freehold property will be more favorable. We also do the robustness test with the transactions on freehold property by foreign buyers. The results are in Column 3 and 4 of Table 7. Similarly, the results are consistent. The transactions by China buyers have a significant increase during political transition. It still holds if we only consider either the property market in central region of Singapore or freehold property market.

5 Conclusion

After the checking the statistics of transactions by China buyers in Singapore, this paper concludes that China buyers are more likely to invest more during political transition periods. We argue that the uncertainty in China's society raising with the political leadership shift is the major driven of China buyers to invest overseas. Comparing with the behavior of Singapore local, Malaysia, US and Hong Kong buyers in Singapore property market, our findings are significant.

Our work gives a new perspective of international real estate investment and echoes the recent media reports on China buyers over the world. The results are also suitable for other property markets where China buyers deeply evolved, such as Australia, US, New Zealand, and Canada. To eliminate this phenomenon is depended upon the advancing political reform in China.

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Figure 1. The Transaction Volume of Singapore Private Property by Buyers from China, Malaysia, US, Hong Kong and Singapore

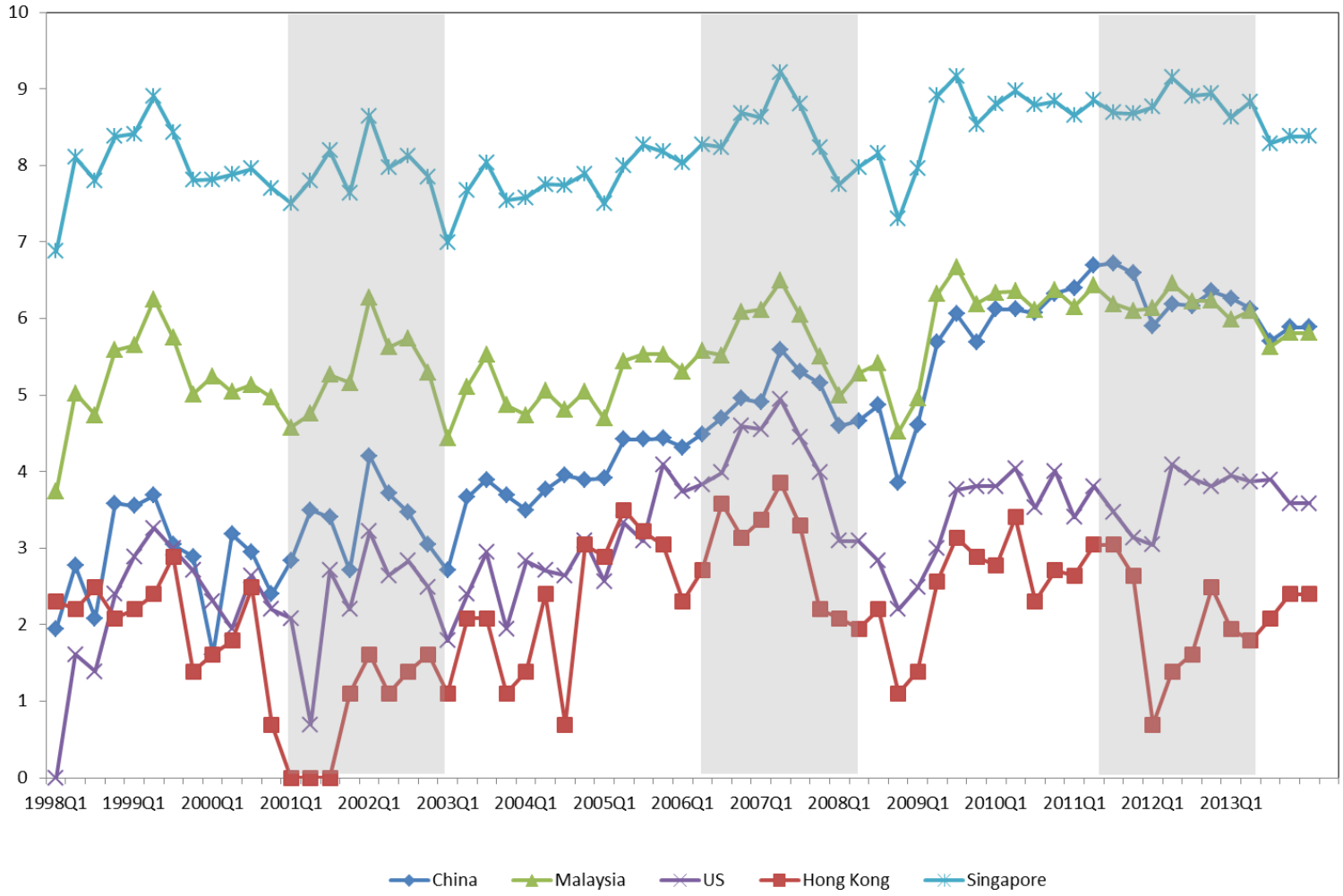

Figure 2. The Transaction Ratio of Singapore Private Property by Buyers from China, Malaysia, US, and Hong Kong

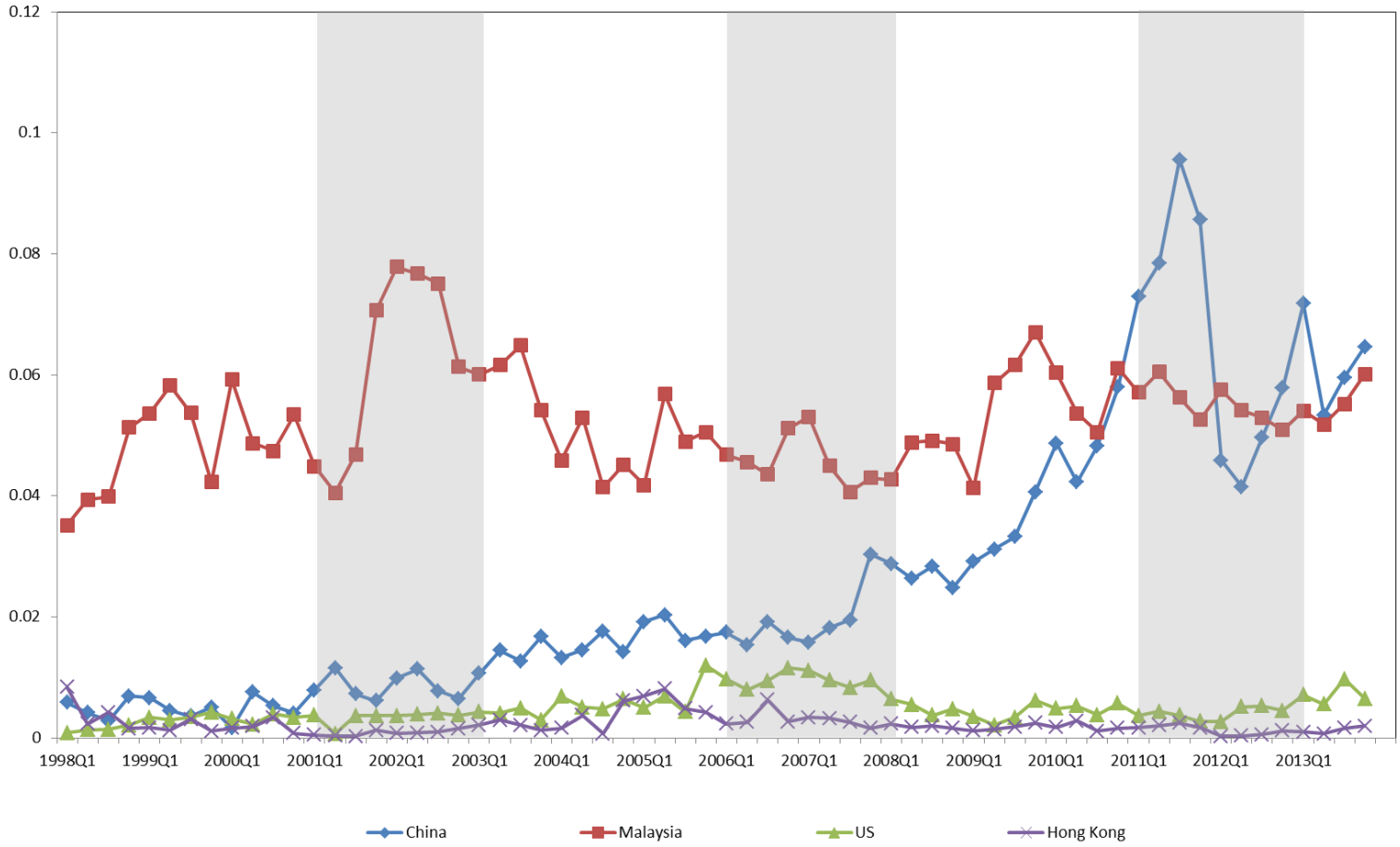

Table 1. Summary Statistics

	China	Malaysia	US	Hong Kong
Transactions	191	309	31	12
	(222)	(180)	(26)	(10)
Transactions Share	0.026	0.053	0.005	0.002
	(0.023)	(0.009)	(0.003)	(0.002)
Relative GDP per capita	0.071	0.183	1.359	0.904
	(0.028)	(0.015)	(0.281)	(0.190)
Dispersion	9.241	10.222	14.664	11.793
	(1.138)	(1.639)	(0.642)	(0.462)
Relative PM10	3.389	1.860	0.838	1.378
	(0.240)	(0.120)	(0.106)	(0.261)

Note: The mean of each variable reported in table and standard deviation is in the parenthesis.

Table 2. Basic Analysis

Dependent Variable	ln(transactions)				
	(1)	(2)	(3)	(4)	(5)
Treatment Group	China	China	China	China	China
Control Group	Singapore	Malaysia	US	Hong Kong	Foreign Buyers
	Panel A: Sub Sample 1998-2002				
Transition in 2001-2002	0.593***	0.393*	0.388	1.744***	0.842***
	(0.153)	(0.196)	(0.332)	(0.349)	(0.263)
	Panel B: Sub Sample 1993-2007				
Transition in 2006-2007	0.172	0.146	-0.556***	-0.025	-0.145
	(0.116)	(0.136)	(0.143)	(0.265)	(0.163)
	Panel C: Sub Sample 2008-2013				
Transition in 2011-2012	0.335*	0.319**	0.550***	0.744***	0.538***
	(0.160)	(0.136)	(0.179)	(0.258)	(0.145)
	Panel D: Full Sample				
Transition in 2001-2002	-0.708***	-0.792***	-0.345	0.487	-0.216
	(0.184)	(0.200)	(0.288)	(0.330)	(0.398)
Transition in 2006-2007	0.313*	0.282	-0.680***	-0.148	-0.182
	(0.182)	(0.180)	(0.158)	(0.271)	(0.257)
Transition in 2011-2012	1.448***	1.323***	1.448***	2.165***	1.645***
	(0.209)	(0.185)	(0.206)	(0.287)	(0.338)
	Panel E: Full sample				
Transition	0.351	0.271	0.141	0.835***	0.416*
	(0.250)	(0.242)	(0.254)	(0.310)	(0.230)

Note: The depended variable is the log of transaction volumes by different countries buyers quarterly. The independent variable is the interacted term between China dummy and political transition dummies shown in the left column. The country dummies and time dummies are included in the regression but not report here. Huber-white robust standard errors are in parenthesis. ***, **, and * indicate the significance level at 1%, 5% and 10% respectively.

Table 3. Placebo Test

Dependent Variable	ln(transactions)			
	(1)	(2)	(3)	(4)
Treatment Group	China	Malaysia	US	Hong Kong
Control Group	Singapore	Singapore	Singapore	Singapore
	Panel A: Sub Sample 1998-2002			
Transition in 2001-2002	0.593***	0.200*	-5.609***	-1.151***
	(0.153)	(0.114)	(0.207)	(0.299)
	Panel B: Sub Sample 1993-2007			
Transition in 2006-2007	0.172	0.026	-4.253***	0.197
	(0.116)	(0.042)	(0.042)	(0.225)
	Panel C: Sub Sample2008-2013			
Transition in 2011-2012	0.335*	0.016	-5.246***	-0.409
	(0.160)	(0.062)	(0.087)	(0.351)
	Panel D: Full Sample			
Transition in 2001-2002	-0.708***	0.084	-5.609***	-1.195***
	(0.184)	(0.104)	(0.207)	(0.250)
Transition in 2006-2007	0.313*	0.031	-4.253***	0.461***
	(0.182)	(0.040)	(0.042)	(0.172)
Transition in 2011-2012	1.448***	0.126***	-5.246***	-0.717**
	(0.209)	(0.046)	(0.087)	(0.338)
	Panel E: Full sample			
Transition	0.351	0.080*	-5.036***	-0.483**
	(0.250)	(0.046)	(0.140)	(0.224)

Note: The depended variable is the log of transaction volumes by different countries buyers quarterly. The independent variable is the interacted term between treatment group country dummy and political transition dummies shown in the left column. The country dummies and time dummies are included in the regression but not report here. Huber-white robust standard errors are in parenthesis. ***, **, and * indicate the significance level at 1%, 5% and 10% respectively.

Table 4. Relative Purchase Motivation Model

Dependent Variable	ln(transactions)				
	(1)	(2)	(3)	(4)	(5)
China×Transition	0.416*	0.330*	0.468**	0.468**	0.553**
	(0.230)	(0.193)	(0.185)	(0.185)	(0.273)
Relative GDP per capita		4.005***	4.612***	4.612***	0.103
		(1.533)	(1.557)	(1.557)	(1.588)
Dispersion × Relative GDP per capita		-0.226*	-0.249**	-0.249**	0.012
		(0.115)	(0.115)	(0.115)	(0.122)
Relative PM10			-1.005***	-1.005***	-0.949***
			(0.385)	(0.385)	(0.348)
ln(Housing Price in Singapore)				1.513**	1.768***
				(0.659)	(0.255)
Transition					0.158
					(0.126)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	No
Season Fixed Effects	No	No	No	No	Yes
Observations	256	256	256	256	256
R-squared	0.885	0.897	0.901	0.901	0.747

Note: The depended variable is the log of transaction volumes by China, Malaysia, US and Hong Kong buyers quarterly. The independent variables are shown in the left column. Huber-white robust standard errors are in parenthesis. ***, **, and * indicate the significance level at 1%, 5% and 10% respectively.

Table 5. Standard Errors Analysis

	Huber-White	Newey-West Lag=2	Cluster by: country	WLS Weight: ln(total transactions)	WLS Weight: ln(tourist)
China×Transition	0.468	0.468	0.468	0.453	0.457
Std. Dev.	0.185	0.273	0.206	0.186	0.181
P-value	0.013	0.088	0.108	0.016	0.013

Note: The table report the coefficient on interacted term between political transition dummy and China dummy. Standard errors and p-value is reported base on different econometric method. The regression model is as same as Column 4 in Table 4.

Table 6. Subgroup Regressions

Dependent Variable	ln(transactions)		
	China and Malaysia	China and US	China and Hong Kong
	(1)	(2)	(3)
China×Transition	0.357**	0.071	0.726***
	(0.158)	(0.178)	(0.220)
Relative GDP per capita	27.679***	3.422*	9.502***
	(4.095)	(1.753)	(3.452)
Dispersion × Relative GDP per capita	0.937	-0.099	-0.456
	(0.584)	(0.142)	(0.324)
Relative PM10	-0.593	-0.453	-1.259
	(0.727)	(0.455)	(0.785)
ln(Housing Price in Singapore)	-2.062**	2.949***	2.347**
	(0.899)	(0.553)	(0.886)
Country Fixed Effects	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Observations	128	128	128
R-squared	0.934	0.947	0.934

Note: The depended variable is the log of transaction volumes by different countries buyers quarterly. Each columns report a subgroup of two countries. One is China and the other is Malaysia, US and Hong Kong respectively. The independent variables are shown in the left column. Huber-white robust standard errors are in parenthesis. ***, **, and * indicate the significance level at 1%, 5% and 10% respectively.

Table 7. Robustness Test

Dependent Variable	ln(transactions in Central Region)		ln(transactions on freehold property)	
	(1)	(2)	(3)	(4)
China×Transition	0.539*	0.448**	0.520*	0.477**
	(0.308)	(0.204)	(0.314)	(0.204)
Relative GDP per capita	-1.222	4.586***	-0.196	5.264***
	(1.538)	(1.459)	(1.531)	(1.441)
Dispersion ×Relative GDP per capita	0.110	-0.238**	0.044	-0.271**
	(0.120)	(0.108)	(0.121)	(0.107)
Relative PM10	-0.867**	-1.054**	-0.716*	-1.187***
	(0.392)	(0.433)	(0.389)	(0.421)
ln(Housing Price in Singapore)	1.534***	1.685**	1.408***	1.540***
	(0.291)	(0.696)	(0.285)	(0.584)
Transition	0.093		0.216	
	(0.144)		(0.135)	
Country Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	No	Yes	No	Yes
Season Fixed Effects	Yes	No	Yes	No
Observations	256	256	256	256
R-squared	0.654	0.873	0.693	0.888

Note: The depended variable is the log of transaction volumes in the central region of Singapore in Column 1 and 2, and the log of transaction volumes on freehold property in Column 3 and 4 by different countries buyers quarterly. The independent variables are shown in the left column. Huber-white robust standard errors are in parenthesis. ***, **, and * indicate the significance level at 1%, 5% and 10% respectively.