

# 17<sup>th</sup> Pacific-Rim Real Estate Society Annual Conference

## Origin and diversity? The Chinese Property Developer in the Nanjing affordable housing market

Jia You  
PhD Candidate  
Melbourne School of Design  
The University of Melbourne  
Parkville, Victoria 3010, Australia  
j.you@pgrad.unimelb.edu.au

Hao Wu  
Lecture in Property  
Melbourne School of Design  
The University of Melbourne  
Parkville, Victoria 3010, Australia  
haow@unimelb.edu.au

Sun Sheng Han  
Professor in Urban Planning  
Melbourne School of Design  
The University of Melbourne  
Parkville, Victoria 3010, Australia  
sshan@unimelb.edu.au

### **KEYWORDS:**

Affordable housing, developer, Nanjing, evolutionary diversity

### **ABSTRACT**

Property developers have appeared to be one of the most critical elements in the rapidly emerging housing markets in transitional China. Yet little is known about their origin and diversity. This paper fills in a gap by examining the origin and evolutionary diversity of property developers involved in affordable housing projects using Nanjing as a case study. Data is collected from semi-structured interviews conducted between December 2009 and January 2010, as well as official websites of developers, and media reports. All developers who were involved in affordable housing projects in Nanjing (2002-2010) were identified. The study found that the developers in the affordable housing sector in China can be categorised into four groups according to their origins. Similarities are observed within each category; while diversity presents in multiple ways such as ownership and organisational structure. This paper is one of the first attempts to investigate developer diversity in China's housing market.

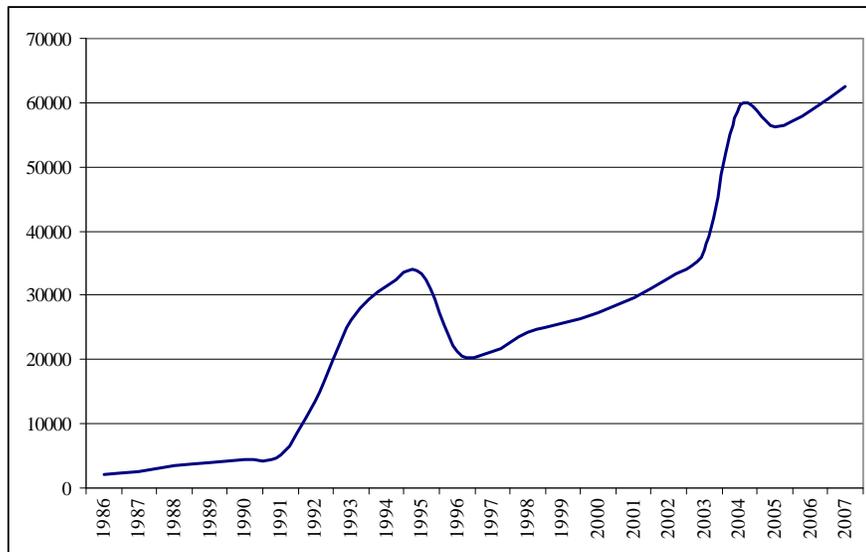
# **Origin and diversity? The Chinese Property Developer in the Nanjing affordable housing market**

## **INTRODUCTION**

Since 1978, an economic reform has started in all aspects around China. Substantial structural changes include government reform of the administrative system, management reform of the state-owned enterprises (SOEs), and the rapid emergence and expansion of the private sector. All have had profound influence on China's housing sector, and stimulated the emergence of one of the world's largest market-driven property development industries. One significant outcome is the rapid increase of the number of property developers in China since early 1980s (see Figure 1). The development history of the Chinese property developers has shown a complicated development pathway, which was not only influenced by the non-state sector, but also affected by reforms of state-owned enterprises and government departments. Till recently a systematic study of the origins of Chinese property developers is lacking. on the demand side, although the housing reform has improved living conditions of urban households (Niu 2008), the rapid increase of property prices has led to lowering affordability – a major policy challenge for the government (Mak, Choy & Ho 2007; Wang & Li 2006).

As affordable housing is not developed fully followed the development process of commodity housing development, where its land allocation, product delivery and profit are determined by the government, especially the local government, what is the operational way of affordable housing development, and is it different from commodity housing development? Who are the property developers contributing to affordable housing development? Is there a link, be it visible or hidden, between the property developer and the government in government led projects? All these questions remain to be explored in China.

Figure 1 Number of property developer in China (1986-2007)



(Data source: China Real Estate Statistical Yearbook, various issues)

Although the Chinese housing market only with a short history, developers usually decide whether it is a desirable development project according to market conditions (Han & Wang 2003; Zhang 2000). Even the state subsidy companies were not excluded from the market framework, and needed to compete with other developers (Zhang 2000). However, others (Cao 2009; Huang 2004; Zhang 2006) believed that the property market is still behaved under the influence of the government sector at both the central and local levels. Thus, to have a better understanding of housing market in China, the analysis needs to consider the role of the government (Huang 2004). But there is a lack of research on the relationship between the government and property developers from the perspective of developers' origins and reform history.

Instead of looking at the commodity market sector having a deep understanding of the developers' origins and diversities in affordable housing sector is important. As there is no entry barrier to prevent typical developers from entering affordable housing sector, understanding developers' origins in affordable housing sector can help explain developer behaviour in an open market. Having a fully understanding of developers' origins is useful for further comparison of developers in the commodity housing sector. This also helps to establish a foundation for exploring motivations factors of developers.

The aim of this paper is to examine the origin and diversity of property developers who are involved in affordable housing projects by using Nanjing, a major city that has rich experience of affordable housing developments, as a case. All the developers involved in affordable housing in Nanjing since 2002 to 2010 are included in this research. The paper starts with a definition review of property developers and affordable housing in China, followed by detailed analysis of the property developers involved in affordable housing projects in Nanjing.

## **PROPERTY DEVELOPERS AND AFFORDABLE HOUSING**

### **The generic property developer**

The property developer is a key stakeholder in property development projects (Millington 2000). Their responsibilities include completing successful developments, and coordinating within different professionals (Estate Gazette 1989; Miles, Berens & Weiss 1991; Millington 2000; Wilkinson & Reed 2008). But to make this group of professionals different from others who randomly take a similar role in developing a property, Millington (2000, pp.25-38) specified the term “developer” as, “the person or organization in reality **regularly** recruit many others professionals to assist in a project, **frequently** forming a formal development team to take responsibility for a scheme, particularly when it is large and when it involves substantial sums of money”. It means that property developers are the group of people who regard property development as their key working field.

Developers’ profit-oriented behavioural characteristic is accepted widely (Estate Gazette 1989; Millington 2000; Wilkinson & Reed 2008). But non-profit firms as property developers could also be found in practical world, especially for affordable housing (Bratt 2008). Besides profit-seeking behaviour, there are many other means to categorize developers, such as through the types of delivered property, the projects’ geographical location, the company structures, as well as the purposes of the final products (Miles, Berens & Weiss 1991; Millington 2000; Wilkinson & Reed 2008).

### **Property developers in China**

In legal or official terms, a property developer in China is an enterprise working on real estate development and operation for profit-earning purposes (SCPRC 1994). A property developer must at least have its own name and organization, fixed operating

place, a certain amount of registered capital and sufficient professional staff (SCPRC 1994). It seems that the definition with constraint conditions is more for administration purposes from the government's perspective. Similarly, there is also an official categorization of developers in China. The Real Estate Developer Qualification Management Regulation was published by the Ministry of Housing and Urban-Rural Development of the People's Republic of China (MOHURD) since 1989, to regulate developers' behaviour, as well as to maintain a healthy property development. The Regulation divides developers into different grades, basing on financial capacity, human resource capacity (especially professional service), historical experience in property development, as well as the quality of pervious projects. The qualification issued by the MOHURD is like a licensing given to the property developer, no property developer can involve in any development project without holding it (MOHURD, 2000b).

In this research, the developer is defined as an organization, recruiting human resources in all related and necessary fields, coordinating with all of them, and handling all the issues accruing in a property development process, as well as having property development business and service as the organisation's core business.

### **Fundamental reforms affecting the origin and diversity of Chinese developers**

Housing is constructed by either the work units or government departments during the pre-reform stage; while there was also a lack of specially-designated government department to oversee or co-ordinate urban public property (Duckett 1998). The economic reform commenced over China since 1978 influenced various aspects in China, including government departments, SOEs and property development.

The administrative reform started from decentralization, including both administrative and economic decentralization (White 1991). In this process, the central government transferred power to local governments, which gained more determination power including project approval and investment. Property companies were established during this period. As changes occurred in the administrative sector only, rather than in the economic system, companies during that time were still subsidiaries of the local governments, and performed more like a government institution (Duckett 1998; Wu 2005). The administrative reform further deepened by restructuring the organizational

systems of the local government, and changing the function of the government to indirect macro-regulation or macro-management in economic sector (Duckett 1998; White 1991). It also required reducing the size of the administrative apparatus. Instead of merging some departments into other existing ones, the ministries and central bureaux removed them from the government system and turned them into councils or large companies (Duckett 1998). In this process, property companies in management and/or development businesses, which were reformed from government departments responsible for public housing construction before, established in the 1980s.

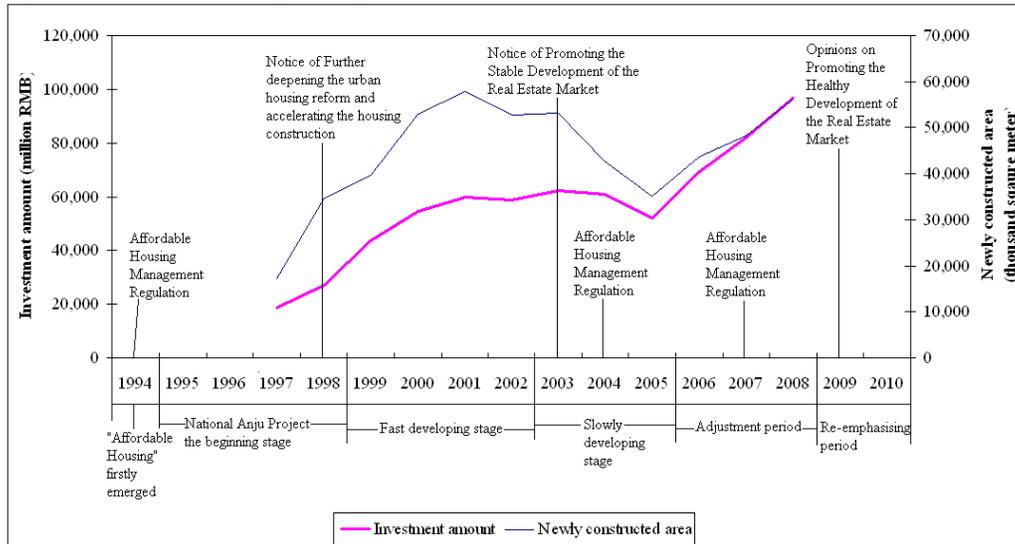
Another contribution of the economy reform is the introduction of non-state sector components and the promotion of their development (Wu 2005). Since private sector had been introduced, it expanded in the following decades and played a decisive role not only in the industrial manufacturing but also in the whole national economy (Wu 2005). Similarly, in the real estate sector, the non-state sector played a more significant role than ever before. In addition to the non-state sector, the state sector was also reformed. The SOEs shifted to an enterprise with greater autonomy, especially on making business decisions according to the market conditions (Duckett 1998; Duncan & Huang 1998; Hassard et al. 2007; Mai & Perkins 1997). It provided SOEs an opportunity to involve in real estate development sector based on their own considerations and determinations. The economy reform showed a pathway. Thus, to have a better understanding of the Chinese developers, instead of using the official qualification system, which mainly focus on the developers themselves, this research tries to group developers according to their origins, ownership, and their relationship with the government, which consists with the aim of this research.

### **Chinese affordable housing projects**

The term “affordable housing” firstly appeared in 1991 in the ‘Notice on Keeping the Reform of the Urban Housing System Stable and Active’, published by the state council, but without detailed explanation or definition of what “affordable housing” should be. Figure 2 showed the development history of affordable housing national-wide since 1994. During the past 20 years, the official definition of “affordable housing” and the purpose of developing affordable housing projects in China have been substantially changed. Now, the official way of representing “affordable housing” is based on the 2007 Affordable Housing Management

Regulation (MOHURD 2007). Accordingly “affordable housing is a kind of housing, providing to low-income urban residents who facing living difficulties, with protection nature, reasonable construction standards, restricted unit size and selling price, as well as preferential government policies” (MOHURD 2007).

Figure 2 Affordable housing development in China



(Data source: China Real Estate Statistical Yearbook, various issues)

Although the official way of presenting “affordable housing” kept on changing in the past two decades, and each city has its own definition of “affordable housing”, the key aspects and main purposes remain similar. In this research, “affordable housing” is defined as a kind of subsidized and regulated housing with social protection nature, government preferential policies and limited ownership, selling publicly to qualified urban residents.

### Affordable housing and their developers in Nanjing

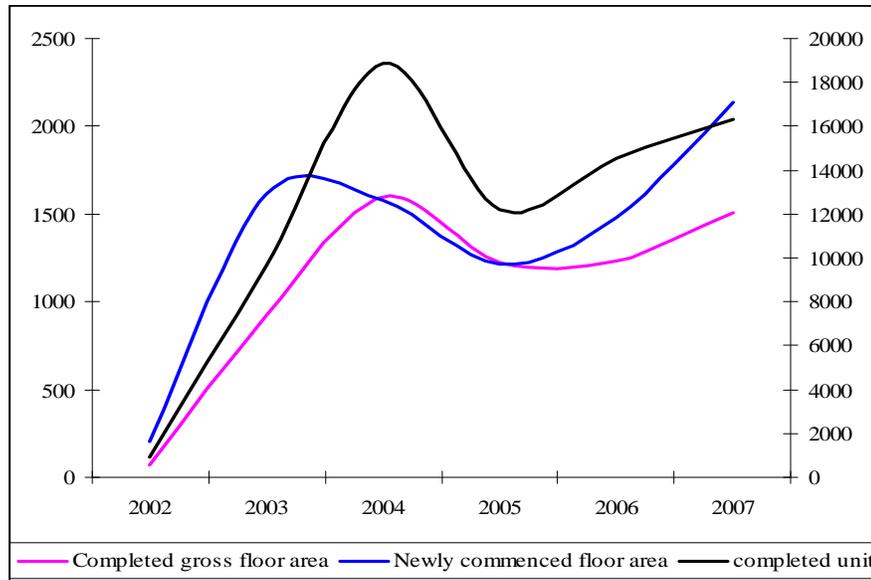
Instead of examining affordable housing projects in China in general, this study uses Nanjing as a case. The city has started affordable housing development since 2002. All the developers involved in affordable housing in Nanjing during 2002-2010 are identified.

### Nanjing affordable housing sector

The Nanjing housing market has had rapid growth since the late 1990s. The Nanjing government had started supplying housing for lower income families or home

resettlements since early 1990s, but large scale affordable housing supply was commenced in 2002. Figure 3 showed affordable housing development during 2002-2007. So far there have been a total of 86 affordable housing projects in Nanjing, 27 projects had been completed and 29 projects are under construction and 30 projects are at permit application stage (Table 1).

Figure 3 Affordable housing development history in Nanjing (2002-2007)



(Data source: the Nanjing Housing Reform Office)

Table 1 Affordable housing projects in Nanjing (Until 2010)

	Number of Projects	Land Area	Residential Area	Total Construction Area	No. of Housing Units
		Unit: thousand square meter			
Completed	27	6,659.47	6,348.47	7,599.02	81,753
Under Construction	29	4,912.84	5,593.99	7,712.79	83,476
Under Application	30	-	-	-	-
<b>Total</b>	<b>86</b>	<b>11,572.31</b>	<b>11,942.46</b>	<b>15,311.81</b>	<b>165,229</b>

Both primary and secondary data are used in the analysis. Firstly a table of all affordable housing projects and their developers is constructed according to the information gathered from the Nanjing Housing Reform Office. Secondly, both primary and secondary data are collected to find out the registered situation, origins, and development history of each developer. Lastly, all the developers are grouped into four classes according to similarities in their registered situation, origins, development history, as well as relationship with government.

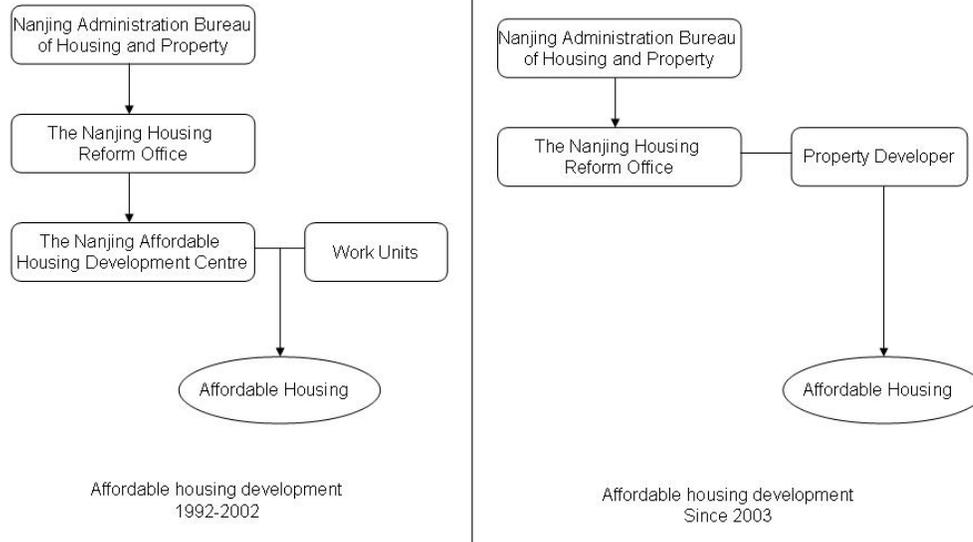
The primary data is collected by semi-structured interviews which were conducted in early 2010. The interviewees include senior managers or general managers from four property development companies involved in affordable housing development in Nanjing. All four property developers have affordable housing development history and are current involved in affordable housing construction and/or application. The number, as well as the size of affordable housing projects delivered by them accounted for a significant part of affordable housing projects in Nanjing. The four developers have provided around 62,000 units under the category of affordable housing, which equals to 38.4% of the total affordable housing project completed or under construction in Nanjing up to the end of 2009. Therefore it is an effective sample of the affordable housing development sector in Nanjing. The face-to-face interviews allowed interviewees to talk about the origins and development history of each company, as well as to help explain the relationship between the developer and the government. Secondary data is drawn from reports available at public domain. Firstly, the official websites of Nanjing municipal government and the district governments, as well as property development companies; secondly, annual reports of listed property development companies; thirdly, other government or consultancy reports and interviews reported in newspapers and journals and data from the bureau of statistics.

Year 2002 is the beginning of large scale affordable housing development. There were 896 affordable housing units completed that year, and over 200,000 sqm affordable housing was commenced. Before 2002, a government department named Nanjing Affordable Housing Development Centre, which was established under the supervision of the Nanjing Housing Reform Office, was responsible for affordable housing supply. Working together with the work units, the Nanjing Affordable Housing Development Centre developed a number of projects for housing security purpose. Among them, two projects are affordable housing (200,000 square meters or 2,472 units) developed between 2002 and early 2003 (Figure 4).

This delivery mode of affordable housing stopped in early 2003. The Nanjing municipal government preferred to deliver affordable housing projects through the market, as it believed that the market approach may reduce cost and improve effective

distribution of social resources (NHRO 2007). In June 2003, the first affordable housing projects using open tendering is believed to be the beginning of the market approach to affordable housing supply (NHRO 2007). It tried to separate the dual roles of project delivery and regulation that were previously played the government. In this new approach, all development initiations of affordable housing projects are applied by the Nanjing Housing Reform Office; property developers are selected by either public tendering or entrustment from the district government; and the Nanjing Housing Reform Office is responsible for supervision and coordination, including strict control over development scale, unit size, sale prices, and qualified families (NHRO 2007) (Figure 4).

Figure 4 Operational ways of affordable housing development before and after 2002 in Nanjing



(author)

Except 3 projects of which the developers are unknown, 5 projects of which the detailed information of their developers is unknown, and 2 projects developed by the Nanjing Affordable Housing Development Centre in 2002, all remaining 76 projects are developed by 34 property developers during the study period (see Table 2). These developers could be mainly grouped into 4 categories according to their origins, and relationship with government, namely:

- government subsidiary developers;
- developers reformed from pervious government departments;
- developers affiliated to state owned enterprises (SOEs);

- privately-owned property development companies

Table 2 Affordable housing projects in Nanjing (2002-2010) grouped according to developers

Type of Developer	No. of Developer	No. of Projects		
Government subsidiary property development company	18	46	Completed	14
			Under Construction	16
			Under Application	16
Property development company as reformed government departments	9	14	Completed	5
			Under Construction	4
			Under Application	5
Property development company affiliated to SOEs	4	5	Completed	2
			Under Construction	2
			Under Application	1
Private-owned property development company	3	11	Completed	3
			Under Construction	4
			Under Application	4
<b>Total</b>	<b>34</b>	<b>76</b>	<b>Completed</b>	<b>24</b>
			<b>Under Construction</b>	<b>26</b>
			<b>Under Application</b>	<b>26</b>

(author)

The following specifically discusses each of the categories.

### **Government subsidiary development companies**

The government subsidiary property development companies are those under the direct supervision or control of local government. The developers, who showed a direct connection with the government, no matter which administrative layer it belongs to, were classified as the government subsidiary development company. Government subsidiary companies have played an essential role in affordable housing development in Nanjing. Nearly half of affordable housing projects (46 out of 86 projects) were undertaken by them. Referring to the scale of those developments, more than half of affordable housing units were constructed by the government subsidiary companies (Table 3).

Table 3 Affordable housing projects in Nanjing (completed and under construction, Until December 2009)

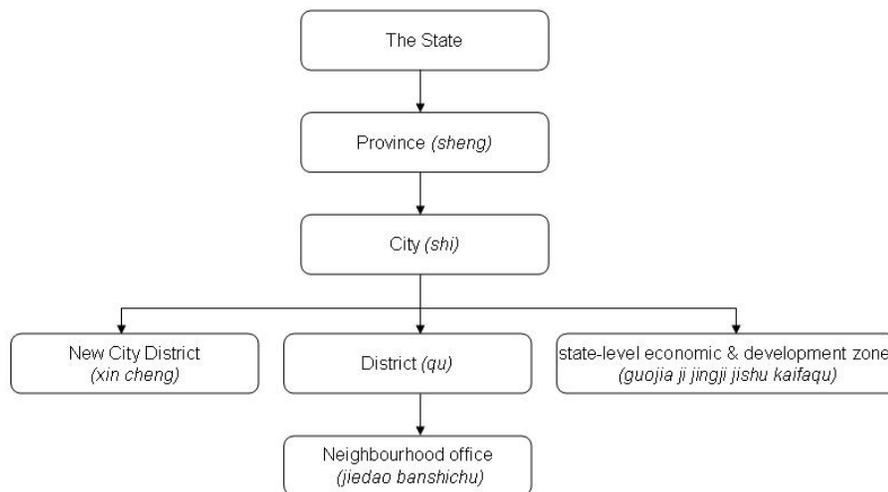
	Land Area	Residential Area	Total Construction Area	No. of Housing Units
	Unit: thousand square meter			
Government	5,999.6	6,218.8	8,228.1	89,047

subsidiary companies (GSC)	% of Total	54%	54%	56%	56%
	District level	4,794.1	5,159.6	6,219.9	67,891
	% of GSC	80%	83%	76%	76%
<b>Total</b>		<b>11,101.7</b>	<b>11,453.5</b>	<b>14,693.0</b>	<b>158,475</b>

(Data source: Nanjing Housing Reform Office)

Government subsidiary developers are established by the government, either at the district level or at the neighbourhood level, directly, for government led projects, including affordable housing, public low-rental housing, and transformation of dilapidated house. Figure 5 showed the governmental structural in Nanjing. According to this governmental structure, the government subsidiary developers could be sub-divided into two groups. One is subsidiary companies attached to district government, and the other is subsidiary companies attached to neighbourhood offices. The former group of developers in Nanjing played a more important role than the later. In Nanjing, 39 subsidiary developers are attached to district government or government at a similar bureaucracy level, and only 7 companies belong to district office. Within the affordable housing projects conducted by the government subsidiary companies, around 80% are developed by subsidiary companies attached to district governments (Table 3).

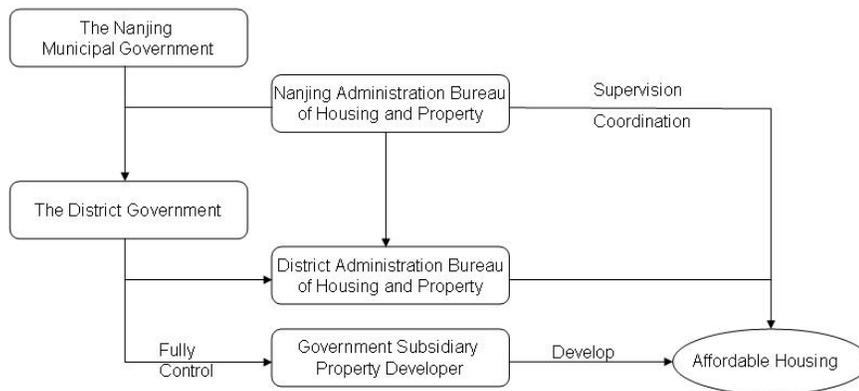
Figure 5 the structure of Nanjing governmental system



(author)

It seems that the district property bureau responsible for the administration, while the government subsidiary company within the district responsible for project development, has been the most popular way of conducting affordable housing projects in Nanjing. Within the Nanjing municipal area, there are eight districts, two new city districts, and one state-level economic and development zone, which are at the same governmental level. Six district level governments developed all affordable housing projects within their jurisdictional area by establishing their own subsidiary companies. Three district level governments also used this way to develop majority of affordable housing projects within the districts. A flowchart draw based on the interviews with staff from government departments and government subsidiary development companies, to show the operational way of government subsidiary companies develop affordable housing projects (see Figure 6).

Figure 6 Operational way of government subsidiary companies in affordable housing projects



(author)

Government subsidiary developers are the development arm of local government to accomplish the construction plan of affordable housing projects at certain locations. Most developers are small size, with limited capacity in both the human recruitment and financial sectors. Table 4 shows financial and human recruitment capacity of nine government subsidiary companies, as well as affordable projects conducted by each of them. Compared with the significant number of affordable housing units conducted by them, the government subsidiary companies are relatively weak in terms of financial capacity and number of employees. For example developer GSC001, fully controlled by a district government, is conducting 9 affordable housing projects and providing the second most number of affordable housing units (13,526 units), has only 10.55

million RMB registered capital and around 30 employees. They have limited access to available projects in the market, mainly due to their limited financial capacity. Their project selection is determined by their governmental supervisor. A vice general manager of GSC001 with 17-year experience suggested that the company has to precede a project even it knows beforehand that the project will not be profitable. Moreover, the company will have nothing else to do, if they do not participate in the projects chosen by the government. It is not only due to they do not have autonomy on decision-making, but also due to their very limited capacity on monetary and human resource sectors. Government subsidiary companies pay more attention on whether they could complete the plan formulated by the local government on time. It is also suggested during interview that employees' wages are determined by the local government, and do not connect with their performances, thus government subsidiary companies usually conduct affordable housing projects to fulfil their duty and try to balance the costs and revenue, rather than making profits and be competitive in the market place. Similar to state-owned enterprises (SOEs) under the centrally-controlled planned economy, employees of government subsidiary companies especially their senior management staffs usually are appointed by the local government.

Table 4 Selected government subsidiary companies involved in affordable housing projects

Company	Registered Capital (million RMB)	No. of Employees	Affordable Housing Project			
			Land Area	Residential Area	Total Construction Area	No. of Housing Units
			(Unit: 1,000 m <sup>2</sup> )			
GSC001	10.55	22	963.63	983.25	1,264.63	13,526
GSC002		60	520.58	560.85	670.90	9,032
GSC003	5.7		16.70	21.30	28.80	348
GSC005	10		0.00	0.00	0.00	0
GSC007	8.12		447.80	370.00	461.00	4,498
GSC009	11	37	191.73	263.40	310.01	3,770
GSC011	50		139.39	346.28	449.94	4,692
GSC012	100	50	2,315.97	2,408.84	2,771.19	28,855
GSC017	50	25	415.60	409.00	666.20	5,094

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### **Property development companies reformed from government departments**

This group of property developers mostly has a long history since they reformed from the pervious government departments at the early stage of economic reform. Table 5

shows basic information of developers in this group, including founded time, financial capacity, and projects undertaken. During more than two decades of economic reform, this group of property development companies is currently showing a strong capacity in financing as well as project delivery. Although the close relationship between the enterprise and the government cannot be ignored, this group of property development companies insisted that they are different from government subsidiary companies. In the affordable housing market in Nanjing, there are nine property development companies belongs to this sector, conducting 14 projects. Within these nine companies, three of them are reformed from the previous municipal level government departments, with the remained six companies are reformed from the previous district government departments.

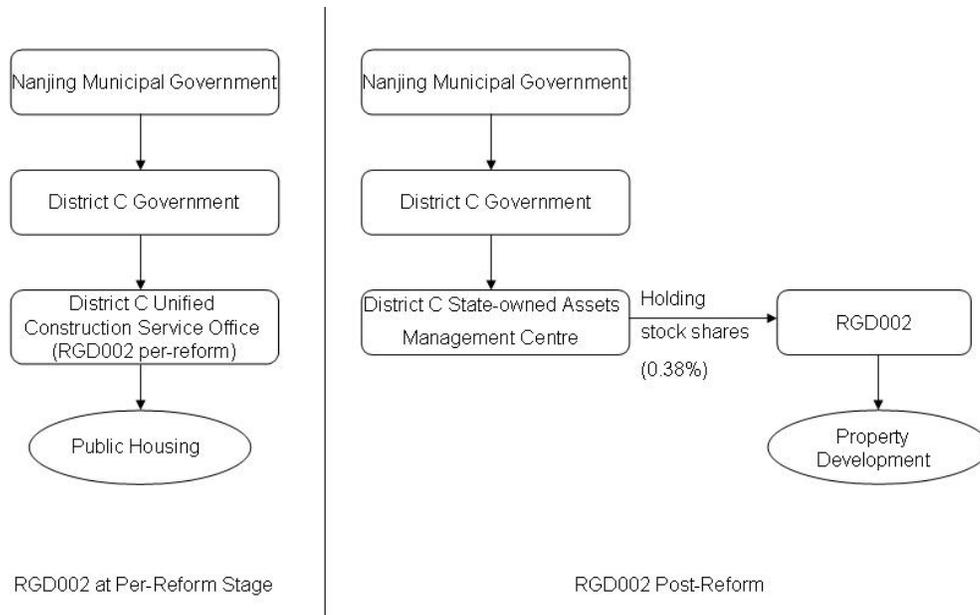
Table 5 Property development companies reformed from pervious government departments

Company	Founded Year	Registered Capital (million RMB)	Affordable Housing Project			
			Land Area	Residential Area	Total Construction Area	No. of Housing Units
			(Unit: 1,000 m <sup>2</sup> )			
RGD001	1984		66.79	226.79	252.35	3,107
RGD002	1985	5000	948.73	780.86	951.37	10,589
RGD003	1984	1914.55	142.65	136.92	148.84	2,078
RGD004	1981	307	18.30	58.61	70.90	790
RGD005	1984	20.6	89.93	114.76	128.71	1,560
RGD007	1984	93.27	814.70	632.20	722.20	7,812
RGD008	1992	50				
RGD009	1997	120				
Sub-Total			2,081.10	1,950.14	2,274.37	25,936
%			18.75%	17.03%	15.48%	16.37%
<b>Total</b>			<b>11,101.70</b>	<b>11,453.50</b>	<b>14,693.00</b>	<b>158,475</b>

(author)

One typical example is from the developer RGD002, which 25 years ago was a district unified construction service office for public housing construction, and now is one of the top property development companies in China, with main business focus in Jiangsu Province especially in Nanjing.

Figure 7 Reform history of RGD002



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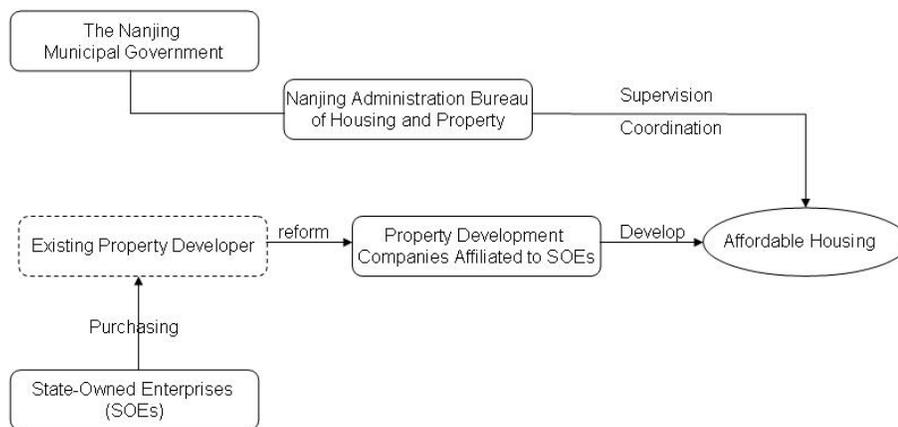
The company has since transformed and became listed in the Shanghai Stock Exchange in 2002. One of the vice general managers described the company as a listed company, with insignificant share held by the state-owned parties. According to its annual report of Year 2009, only 0.38 stock shares are hold by the district state-owned assets management centre. But the influence from the state sector still cannot be ignored, as around one-third (30.86%) shares are hold by other state-owned companies. The vice manager of the RGD002 insists that they are different from the government subsidiary companies, and they are more likely response to the market situation. Instead of a vertical administrative relationship with city/district/local governments, the company has tried to maintain a partnership relationship with the government (see Figure 7). Compared to government subsidiary developers, RGD002 makes decision basing more on the market supply and demand, using typical measures such as the equity capacity, financial capacity, profit margins and non-monetary returns.

### **Property development companies affiliated to SOEs**

In Nanjing, there are four property development companies affiliated to SOEs, conducting four affordable housing projects. Their parent SOEs companies are not doing business related to real estate development sector, but in metallurgical industry,

automotive industry, imports and exports trading or trust investment. The SOE reform increased the autonomy of the SOEs, especially on making business decision according to the market conditions (Duckett 1998; Hassard et al. 2007). Consequentially the SOEs believe that the real estate sector has a bright future and will be able to contribute sustainably to overall growth. Half companies (two out of four) in this sector have selected affordable housing projects to be their very first development in their development business. Some want to gain good reputation; others aim for experience accumulation.

Figure 8 Pathway of SOE001 involved in affordable housing projects



(author)

One approach by a parent SOEs to establish its affiliated property development business is by acquiring an existing property development company, and renaming it after gaining full control. Figure 8 shows the pathway of the developer SOE001 involved in affordable housing development. In 2006, SOE001 was founded by purchasing a SOE development entity with the longest property development history in Nanjing. The benefit is that the development experience, qualification and human resources owned by the pervious company make the newly established companies perform better than other newly established companies. Be different from the newly established property company, who need to start from small scale projects, all the projects conducting by SOE001 are large in scale and multi-purpose development. This way of involving in affordable housing as well as property market needed an extraordinary strong financial capacity, which could not be copied simply by others. For other SOEs, they may have their own way of establishing their affiliated property

development company. Due to the unavailability of information, their evolutionary pathway can not be shown in detail.

**Private-Owned property development companies**

The property development companies grouped under this class are according to their registration situation. In the affordable housing development, there are only three property development companies whose registered ownership belongs to the private-owned enterprises. One company only involves in one affordable housing project, the other two enterprises had conducted a large number of affordable housing projects, one with four projects and the other with six projects.

Table 6 showed the general information of privately-owned property developers involved in affordable housing projects in Nanjing. Except one companies with limited detail information, the other two companies, POE001 and POE003 are reformed from the original SOEs in early 2000s. The table also showed that developers in this group have at least around 20 year history, while for POE003, which has around 30 year development history. The long development history may make the developers performed more standard, and more like those companies in mature market; as well as provide a foundation for the reform from a state-owned one to a private-owned enterprise. Originally being SOEs, it is believed that developers in this category have different characteristics from “pure” private company. The relation between the government and the private-owned companies, as well as how much the state sector affect the non-state sector should be explored further in future studies.

Table 6 General information of private-owned property developers involved in affordable housing projects

POE001	Founded in 1992, reformed to private-owned company in 2001; Commenced property development since 1993; Currently have commercial building, hotel, luxury villa, ordinary commodity housing; Involved in affordable housing development since 2003, and currently have 2 projects completed and 2 projects under application.
POE002	Founded in 1993 Majority of projects are for the work units or SOEs

POE003	<p>Have around 30 year history;          Developed through buying and/or emerging several different SOEs;          The parent company holds registered funds 10 billion RMB, and more than 6000 employees;          Current developments including luxury commodity housing, service apartments and affordable housing projects;          Involved in affordable housing development since 2005, and currently have 1 completed project, 3 projects under construction and 2 projects under application.</p>
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## CONCLUSION

This study suggests that the affordable housing developers in Nanjing have varying characteristics in terms of their origins and evolutionary pathways. The evolutionary diversity and its characteristics in the context of the affordable housing sector have led to four categories basing on some common features such as their origin and their relationship with the government system. The study finds that all developers show a strong connection with the government in affordable housing supply. There is also a certain level of diversity in terms of developer motivations for taking affordable housing projects.

The government subsidiary property development companies, which are fully controlled by the local government, have played a principal role in affordable housing development. The local government establishing a subsidiary company responsible for affordable housing development within its jurisdiction became the most popular way for affordable housing development from 2002-2010. For government subsidiary companies, their key focus is on the government-led housing projects, especially affordable housing projects, and seldom participated in commodity housing or commercial property developments. The property development companies reformed from the pervious government departments accounted for the second significant group. Although there are 11 projects developed by the private-owned enterprises, these group of enterprises are still reformed from the pervious SOEs. But the other three groups of developers have also involved in other kinds of property development, and some of them are the key player in the market. It is considered that their projects selection are less affected by the government sector, but mainly based on the market situation as well as the companies own capacity. However the extent to which the relationship between these enterprises and the local governments is currently uncertain. In future studies, it is interesting to examine how close the relationship is

between the property development companies and whether the relationship with the government influence their motivation towards affordable housing projects.

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