A New Affordable Housing Model in China: A Case-Based Examination of a Private Developer's Role

by

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Submitted to the Department of Urban Studies and Planning in partial fulfillment of the requirements for the degree of Master in City Planning

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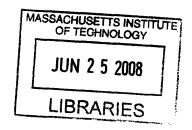
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ABSTRACT

This thesis examines the motivations behind Wanhuilou, the first affordable housing development to be initiated, constructed, and subsidized by a private developer—China Vanke. This case presents a pioneering firm and a radical project, as China Vanke is the first private real estate developer to build affordable housing without a land subsidy from a government-sponsored program. An innovative design, high standards for quality, and a range of amenities further distinguish Wanhuilou from China's other low-income housing. Moreover, China Vanke initiated this project in the city of Guangzhou, one of China's most expensive land and housing markets.

Given Wanhuilou's extremely anomalous nature, this thesis aims to understand why a private developer would embark on such a project. This research is important because it examines a potential solution to a critical problem, China's affordable housing shortage. By exploring different behavioral models as possible explanations for China Vanke's motivations, my analysis reveals the particular elements that helped China Vanke take on this project.

This thesis analyses the research question through four different hypotheses, testing if and how the market, national policy, local political economy, and corporate social responsibility can explain China Vanke's decision to build Wanhuilou. While this examination suggests that corporate social responsibility builds the strongest case for China Vanke's motivations, it also shows the interrelationships of these behavioral models. In fact, strategies from other models could complement China Vanke's current approach—although the firm's innovation is not enough to make Wanhuilou a replicable business model, a structural reform of housing, with help from the financial market and government policy, could potentially make Wanhuilou a sustainable enterprise.

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Table of Contents

Abstract	3
Acknowledgements	5
List of Figures and Tables	10
Chapter One	
Introduction: Why is China Vanke Building Affordable Housing?	12
1.1 Research Question	
1.2 Firm Profile and Project Background	
1.3 Overview of the Four Hypotheses Considered	
1.3.1 The Market Hypothesis	
1.3.2 The Policy Hypothesis	
1.3.3 The Local Political Economy Hypothesis	
1.3.4 The Corporate Social Responsibility Hypothesis	. 21
1.4 Methodology	
1.4.1 Fieldwork	
1.4.2 Analysis	
1.4.3 Possible Limitations	26
Chapter Two	
The Market Hypothesis: Can China Vanke Harness the Private Market to	
Profitably Supply Affordable Housing?	
2.1 Introduction: Comparing Economic Theories with Observations of China	
2.2 Market Theory: Creating Efficient Housing Markets in Developing Countries	
2.3 Market in Practice: History of Land and Housing Reform in China	
2.3.1 Emergence of a Land Market	
2.3.2 Emergence of a Housing Market	
2.3.3 Emergence of Private Real Estate Developers	
2.4 Market Inefficiencies: The Problem of Unaffordable Housing in China	
2.4.1 The Relationship Between Land, Housing, and Developers	
2.4.2 Closed Real Estate Market	
2.4.3 Divergent Price-to-Rent Ratios	44
2.5 China Vanke's Portfolio: The Low-Income Anomaly among High-Income	
Projects	
2.5.1 Overview of Projects	
2.5.2 Wanhuilou Project Financials	
2.5.3 Testing the Market Hypothesis: Profit-Maximization and Game Theory	
2.6 Conclusion	. 52

Chapter Three

The Policy Hypothesis: Can the Government Create Incentives for Chin	a
Vanke to Build Affordable Housing?	54
3.1 Introduction: Comparing National Policies with Observed Responses	54
3.2 Recent National Policies: Supplementing and Regulating the Market	55
3.2.1 Affordable Housing Programs	55
3.2.2 Industry Regulations	57
3.3 Local Implementation: Constructing Affordable Housing	59
3.4 China Vanke's Responses: Rhetoric and Action	61
3.4.1 Annual Report	61
3.4.2 Wanhuilou's Affordable Housing Contribution	62
3.5 Conclusion	65

Chapter Four

The Local Political Economy Hypothesis: Can a Relationship with the Loc	cal
Government Compel China Vanke to Produce Affordable Housing?	67
4.1 Introduction: Comparing Political Economy Theory with Observations in China	. 67
4.2 Theory: Local Political Economy	68
4.3 The Origins of Local Government Power: Decentralization of the Real Estate	
Market	69
4.3.1 State Control of Property: The Guangzhou Land Market	69
4.3.2 Local Implementation of National Policy: The 90/70 Rule	71
4.4 The Manifestations of Local Government Power: Negotiations with Developers	73
4.4.1 Developer Exactions: Center City Relocation Project	. 73
4.4.2 Building Concessions: Density and Height Allowances	75
4.5 Evaluating Wanhuilou: Local Political Economy in Guangzhou	76
4.6 Conclusion	78

Chapter Five

The Corporate Social Responsibility Hypothesis: Can Social Values Insp	ire
China Vanke to Pursue Affordable Housing Development?	79
5.1 Introduction: Comparing Corporate Social Responsibility Theory with China	
Vanke's Practices	79
5.2 Theory and History: Corporate Social Responsibility	80
5.3 "The New Frontier": Corporate Social Responsibility in China	. 85
5.4 China Vanke's Practices: Corporate Social Responsibility at the Firm Level	. 85
5.4.1 Establishing Corporate Social Responsibility: Leading the Firm to Lead the	he
Industry	
5.4.2 Inculcating Corporate Social Responsibility: Achieving Employee Buy-	
In	. 88
5.4.3 Utilizing Corporate Social Responsibility: Addressing Public	
Opinion	. 89
5.5 Conclusion	

Chapter Six

The Shared Interest Model: Creating Value at the Bottom of the Housing	
Pyramid	92
6.1 Introduction: Marking the Shift from Responsive to Strategic CSR	92
6.2 Firm Initiatives: Meeting Demand at the Bottom of the Pyramid	93
6.2.1 Wanhuilou's Missed Opportunity	93
6.2.2 Urbi's Demonstrated Success	94
6.3 Outside Initiatives: Expanding the Mortgage Market	95
6.3.1 Lessons from Mexico's Mortgage Market	95
6.3.2 Analysis of China's Mortgage Market	97
6.4 Conclusion	98
Chapter Seven	

Conclusions	
7.1 Summary and Discussion of Findings	
7.2 Further Questions	
References	

List of Figures

6
5
6
7
)
2
2

List of Tables

Table 1. Summary of Guangzhou Projects	46
Table 2. Investment Costs for Wanhuilou	
Table 3. Annual Operating Costs for Wanhuilou	49
Table 4. Affordable Housing Initiatives in Four Chinese Cities	60
Table 5. Breakdown of Resident and Unit Type in Wanhuilou	63

Chapter One

Introduction: Why is China Vanke Building Affordable Housing?

1.1 Research Question

In recent years the workings of China's real estate market have captivated many, from investors and entrepreneurs to academics and development practitioners. Statistics that may enthuse one group, though, are likely to alarm another. For example, an October 2007 assessment revealed that sales prices of new residential apartments rose by 10.6 percent on a yearly basis (Hu, 2007), while investment in real estate rose 31.4 percent year-on-year, with residential property investment accounting for more than 70 percent of the total ("China Property Index Hits New High in October", 2007). Although these figures fuel investment, they also signal a potentially overheated industry and an affordable housing crisis in China's cities. A 2006 Beijing Normal University survey concluded that 70% of China's urban residents cannot afford the "commodity" housing (CB Richard Ellis, 2007a) that is driving the country's economic growth (Liu, Park, & Zheng, 2002: 41). As China's moneyed classes and private real estate developers reinforce high housing prices in a frenzied cycle of buying and building, it would seem unlikely, if not impossible, that the private sector would address the housing demand in lower-income markets.

Yet one remarkable example exists in Guangzhou. This thesis examines Wanhuilou, a low-income housing development initiated, built, and subsidized entirely by China's largest real estate developer, China Vanke Company, Ltd. This case presents a pioneering firm and a radical project, as China Vanke is the first private real estate

developer to build affordable housing without a land subsidy from a governmentsponsored program. Moreover, an innovative design, high standards for quality, and a range of amenities dramatically distinguish Wanhuilou from China's other low-income housing, which, whether public or private, is typically bare-boned and in disrepair.

The significance of Wanhuilou, which will be complete in June 2008, inspired me to pursue the historic opportunity to study the project from its planning stages. Given Wanhuilou's extremely anomalous nature, this paper seeks to understand why a private developer would embark on such a project when it could extract far higher prices in the luxury market. Because this question addresses firm behavior, my methodology relies on my unique opportunity to conduct research from inside the firm, where I spent ten weeks as an intern and researcher. By exploring different behavioral models as possible explanations for China Vanke's motivations, my analysis reveals the particular elements that helped China Vanke take on this project and thus provides an instructive case for the Chinese government, private developers, and interested researchers. This research is important because it examines a potential solution to a critical problem, China's affordable housing shortage. An understanding of China Vanke and the Wanhuilou project will reveal whether this case represents a singular phenomenon or a replicable model that could address an urgent housing crisis in China's cities.

This thesis explores the research question through four different hypotheses, examining each with pertinent literature, its applicability to greater China, the local context of Guangzhou, and the particulars of the Wanhuilou case. By analyzing different aspects of firm behavior, these hypotheses do not necessarily conflict with one another, and their potential interrelationships may help build a solution to this puzzle. Chapter

Two addresses the market hypothesis: can China Vanke harness the private market to profitably supply affordable housing? Chapter Three presents the policy hypothesis: can the government create incentives for China Vanke to build affordable housing? Chapter Four discusses the local political economy hypothesis: can a relationship with the local government compel China Vanke to produce affordable housing? Finally, Chapter Five addresses the corporate social responsibility hypothesis: can social values inspire China Vanke to pursue affordable housing development? Before discussing each of these hypotheses in greater depth, it is important to first provide a brief background on China Vanke and Wanhuilou, presented in the next section.

1.2 Firm Profile and Project Background

Founded in Shenzhen in 1984, China Vanke Company, Ltd. is one of China's first shareholder companies. From its birth in Shenzhen, where China's private real estate industry got its start, China Vanke established a strong foothold in providing luxury apartments, townhouses, and villas to China's upper classes, and the company expanded quickly, along with other developers—as of 2005 there were 3,286 real estate enterprises operating in Guangzhou alone, with 30,393 total employees and \$1.386 billion in registered capital (*Statistical Yearbook of Guangzhou, 2006*). China Vanke now has more than 13,000 employees across its 26 offices. Every year the firm completes 60,000 residential units, constituting one percent of the market share in China—the highest of all real estate developers. By year-end 2006 it reported approximately \$2.4 billion in total equity (China Vanke Company, 2006a: 79). At the end of the third quarter in 2007, China Vanke had earned \$2.3 billion in total sales revenue, which increased 197 percent from

the previous year, and \$35 million in net profit, representing a 36 percent annual increase (China Vanke Company, 2007a: 3).

These financial indicators signify that China Vanke is successfully achieving its plan for "rapid growth" between 2006 and 2008, but they should not obscure its concurrent mission to better understand and address the housing needs of low- and middle-income families (China Vanke Company, 2006a: 4). Wang Shi, China Vanke's founder and Chairman, first introduced this initiative in his address to shareholders in the firm's 2005 Annual Report, writing, "We will continue to promote rational thinking on the solution to the housing problem of low- to medium-income families. We plan to introduce a suitable housing prototype for low-income households in China's urban areas" (China Vanke Company, 2005: 10). In early 2006 China Vanke commenced research in Beijing, Shanghai, and Guangzhou to better understand the current housing conditions and needs of the cities' working classes, collecting data on household income, housing costs, and other expenses. Through surveys, interviews, and photographs, researchers compiled a grim picture of low-income housing: families crowded into apartments smaller than 20 square meters and anywhere from six to ten workers packed into bunkrooms of a similar size, all with rundown facades, moldy interiors, and no indoor plumbing. Despite the poor conditions, this housing serves a crucial need in its affordability, with average rents representing approximately 12 percent of households' incomes (China Vanke Company, 2006b: 26).

This demographic research encouraged China Vanke to produce its own affordable housing development, with Wang Shi leading the effort. This process began in the second half of 2006. The design came first, and architects from several offices

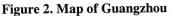
collaborated to create a structure that would maximize efficiency and density without sacrificing quality and style. Referencing the traditional *tulou* design from nearby Fujian province, Wanhuilou has a circular shape, with units facing an open-air courtyard:

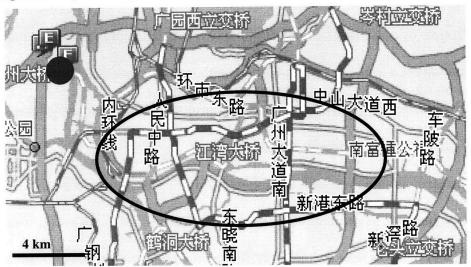


Figure 1. Wanhuilou Exterior

Once the company settled on the project's design, it turned to location and

implementation. The Guangzhou office received responsibility for the project because it held a vacant land plot next to one of its existing developments that could accommodate the project's design and size. The map below shows the location of the project, indicated by the solid dot; it is northwest of the city center, which is demarcated by the ellipse:





The Guangzhou office broke ground for this project in early 2007. The project is currently under the final stages of construction and will be completed in June 2008. Wanhuilou will have a total of 297 units, and although all units will be identical in size— 35 square meters—changeable interior configurations can accommodate different household types. Single families, for example, may choose a layout with one, two, or three bedrooms. Young single people may decide to double up in an apartment, while still others may form groups of four to share a dormitory-style design. The different configurations reflect the results from a questionnaire conducted with 180 respondents, most of who work in service and maintenance in two China Vanke developments and represent the project's target population in terms of income and affordable housing need. Whether configured for a single family or for four individuals living in a dormitory design, monthly rent for each unit will be RMB 400, or approximately \$55 (China Vanke Company, 2007b).

In addition to the residential units, Wanhuilou will also include 400 square meters of commercial space for restaurants, a supermarket, and other retail services, as well as common recreational facilities and other resources, such as a library and an Internet café. Unlike China Vanke's other developments, where it has earned an excellent reputation for its property management, maintenance, and security services, Wanhuilou will rely on a "self-service" system. China Vanke will look to Wanhuilou's residents to fill part-time cleaning, security, and gardening jobs with a pre-determined pay schedule and fixed number of hours. The author of an operations planning document highlights the social benefits of this system, noting how "China Vanke will also provide the opportunity to earn a part-time income and a good community culture" (China Vanke Company, 2007b).

Taken together, the concurrent missions to provide high-quality, affordable housing and to foster a self-servicing communal culture make Wanhuilou distinctly different from China Vanke's other residential developments, which offer high-quality, expensive housing to middle- and upper-middle class residents who expect the excellent and abundant services associated with China Vanke's brand.

Although the preceding description of Wanhuilou briefly establishes *how* the project developed, it does not illuminate *why* China Vanke would embark on such a project, and this research question has bearing on both literature and policy. In terms of the first, this research attempts to address a noticeable gap in U.S. affordable housing literature, which largely limits its treatment of private sector involvement to the mechanics of subsidies and incentives. This focus on the "how" obscures the interesting question of why private developers have emerged to create an entire industry in affordable housing. The motivation for private developer participation presents an even more significant question for China, which lacks robust subsidy and incentive structures like the United States'. This research question also has policy implications: if we can understand why one private developer would embark on its own affordable housing project, we can perhaps predict and encourage the conditions that seem necessary for private sector involvement. Given China's urgent affordable housing shortage, this exploration is important.

1.3 Overview of the Four Hypotheses Considered

1.3.1 The Market Hypothesis: Can China Vanke Harness the Private Market to Profitably Supply Affordable Housing?

This hypothesis derives from neo-classical economic theory that the market, comprised of the optimizing choices of individual firms and consumers, will efficiently determine output and price according to supply and demand. Just like other prices in a market, land prices perform two functions: allocation and distribution. Land prices indicate to firms the value and optimal use of land and inform them of how much of these resources to develop; they also determine which people with corresponding willingness to pay will consume the development (Ingram, 1998: 1028). While land influences the profit-maximizing choices of many different kinds of firms—for example, location decisions—land is even more critical to real estate developers because it is the main factor of production.

If the market hypothesis explains China Vanke's decision to build Wanhuilou, then this affordable housing project must provide the best return on the firm's investment in land and other costs—it must either represent the best profit-maximizing choice in the present or strategically position the firm to reap higher profits in the future. As one of the country's first private real estate developers, China Vanke draws from a history of industry leadership, innovation, and financial success, so it is possible that the firm has discovered a new market niche where it can operate profitably. Thus, for the market hypothesis to be true, the underlying behavioral model is the firm's self-interest.

1.3.2 The Policy Hypothesis: Can the Government Create Incentives for China Vanke to Build Affordable Housing?

This hypothesis develops from the basic idea that governments have a fundamental role in all markets to address market inefficiencies and promote social benefits. In this case, the hypothesis would suggest that the Chinese government can use strategic incentives to promote the low-income housing development that rational, profitmaximizing firms neglect, whether through its own programs or policy mandates.

Given the central government's active policy-making and programming to increase affordable housing in the last three years, this hypothesis could provide a timely explanation for China Vanke's behavior. If national policies and programs explain Wanhuilou, then we should expect China Vanke to be responsive to them, and, like in the market scenario, the motivating behavior would be the firm's own self-interest as it takes advantage of available incentives.

1.3.3 The Local Political Economy Hypothesis: Can a Relationship with the Local Government Compel China Vanke to Produce Affordable Housing?

If the policy hypothesis establishes the connection between the central government and the market, the local political economy hypothesis explores the power dynamics between local governments and firms to understand why national policies are not always implemented as intended. This hypothesis poses that government is not a unitary monolith, and policy implementation hinges on inter-governmental relations and negotiations between local political powers and private firms. When local governments manage real estate development, as this paper will show for China, they impose on the

market their own system of economic valuation that yields a "currency" of power from local growth. If a measure interferes with growth, local governments may sacrifice national policies and even market principles in order to capture gains at the local level. This system causes inconsistent policy implementation and fuels hidden deals with private developers.

If this hypothesis provides an explanation for Wanhuilou, we would expect that the local Guangzhou government negotiated a deal with China Vanke to build it. Given the local governments' increasing control of state property holdings and housing policy implementation, China Vanke must navigate the local political setting in order to conduct business, making this hypothesis certainly possible. In this scenario, it is no longer selfinterest alone that drives the firm's behavior but also an appreciation of how a firm's interests hinge on the interests of others in important local relationships.

1.3.4 The Corporate Social Responsibility Hypothesis: Can Social Values Inspire China Vanke to Pursue Affordable Housing Development?

Deriving from a more recent literature and practice than the previous three hypotheses, the corporate social responsibility (CSR) hypothesis suggests that social values can motivate a private enterprise to promote certain practices or projects that ostensibly serve a greater good. Current literature divides CSR into two approaches: responsive CSR and strategic CSR. Responsive CSR has characterized practices in recent years, and it reflects four main justifications: moral obligation, license-to-operate, sustainability, and reputation. These justifications, in turn, have produced certain CSR activities that have become expected and standard over time. Strategic CSR, by contrast,

represents a more innovative path that seems to characterize the future of CSR, aiming to create shared value between business and society.

Because CSR is multifaceted, this hypothesis could explain China Vanke's motivations in a number of different manifestations. At the most basic level of CSR, Wanhuilou could represent purely philanthropic behavior, a corporate donation with no expectations for financial return. In a more strategic approach, the firm could pursue the intersection of societal and self-interests, profitably targeting an unmet need for affordable housing and simultaneously distinguishing its products and image. With an underlying orientation towards a firm's bottom line, the CSR hypothesis ultimately connects back to the market hypothesis.

Following this exploration of CSR's explanatory power, the subsequent chapter imagines the possible benefits of and the necessary conditions for a strategic CSR approach to affordable housing. Thus, instead of offering a hypothetical behavioral model to explain China Vanke's project, this chapter provides an instructive behavioral model to rethink Wanhuilou. This chapter demonstrates that China's government and financial sector could provide better financing tools to address affordable housing development from the demand side. Thus, a strategic affordable housing strategy requires not only firm innovation but also structural reform of housing policy.

The potential to achieve both social and financial returns on a housing development signifies a worthy goal. Whether or not this version of the CSR hypothesis explains China Vanke's decision to build Wanhuilou, it is important to consider the necessary conditions that would enable a profitable affordable housing project. This thesis concludes by analyzing how all four hypotheses interrelate to understand the most

essential firm behaviors behind an innovative affordable housing development and the additional aspects outside the firm that would make it successful.

1.4 Methodology

1.4.1 Fieldwork

This paper is based ten weeks of fieldwork in Guangzhou, where I lived from the beginning of June to the middle of August in 2007. I worked in China Vanke's local office as both an intern and researcher, splitting my time evenly between the design and business development groups to understand different aspects of the firm.

By working with the design group, I gained access to the research studies, design drafts, and operational plans that ultimately led to Wanhuilou, the final product. A master operations planning document provided particularly useful information, detailing estimated costs and revenues, daily operations and management plans, and the proposed tenant breakdown and selection procedures. In addition to collecting and translating all documents related to Wanhuilou, I conducted interviews with members of the design group, including an email interview with Wanhuilou's chief designer, who is based in Shenzhen.

During my time with the business development group, I gathered and translated documents related to the Guangzhou office's market strategy, including a business plan, market forecasts, and a market survey on housing in the city. I collected comprehensive data on all 18 completed and ongoing projects in the Guangzhou office's portfolio, including the total sales price of the land, gross floor area, total number of units, sales price per square meter, and information on the application of certain government

regulations. I also conducted interviews with colleagues in the business development group.

In addition to the time I spent in the office five days a week and nine hours a day, I conducted strategic research activities outside the office. I visited the Wanhuilou construction site and interviewed the operations manager. I attended a land auction on July 19, when China Vanke successfully won a land parcel in Panyu district. I also visited Tangxia, an "urban village" in Tianhe district that represents typical housing for the city's low- and middle-income residents.

My fieldwork in Guangzhou is complemented and informed by additional time I have spent in China. In January of 2007 I traveled to Shenzhen for ten days with the Shenzhen Studio, which introduced me to China Vanke and inspired this research. From 2004 to 2005 I lived in Beijing, where I worked for a Chinese consulting company. Thus, even though I had never before traveled to Guangzhou nor met my colleagues, I brought knowledge of the real estate industry in the Pearl River Delta region and familiarity with Chinese office culture, both of which helped orient me in my research.

1.4.2 Analysis

While in the field, my research and analysis often occurred simultaneously, as I employed the extended case method developed by sociologist Michael Burawoy. This method provided an appropriate strategy for conducting field work and analysis because of my particular vantage point from within China Vanke, where I worked as much as an intern as a researcher; similarly, Burawoy sought a position in the Personnel Research Unit of the Copper Industry Service Bureau to explore labor force localization in Zambia.

The chance to research from the inside presents an unmatched opportunity for nuanced research, but it also presents challenges for structuring and analyzing research. Burawoy, though, addresses and embraces these challenges with his extended case method.

The extended case method begins with data collection, but instead of imposing a fixed coda for research, it relies on open and ever-changing dialogue between the observer and participants to adapt to the situation at hand. Next, it turns to analysis, embedding that dialogue "within a second dialogue between local processes and extralocal forces that in turn can only be comprehended through a third, expanding dialogue of theory with itself" (Burawoy, 1998: 5). I employed the first step of data collection as a participant researcher in the Guangzhou office; next, I gathered relevant information from both local and national contexts to understand this data in relation to markets, policies, and culture; finally, I explored these context-specific analyses through larger theories. This process allowed me, like Burawoy, to "take multiple readings of a single case and aggregate them into social processes" (Burawoy, 1998: 15).

It is important to emphasize that this method is designed not to fit data and reduce theory but instead to seek complexity in data and augment theory. This approach is particularly valuable to the study of anomalies and thus to my research on Wanhuilou; the uniqueness of my case does not detract from its value because I do not seek to prove its representativeness of a single theory, instead exploring it through four different hypotheses that interrelate. By moving "from the 'micro' to the 'macro,' and [by] connecting the present to the past in anticipation of the future," this analytical method, as well as the unique case itself, provides a valuable way to consider affordable housing strategies for China's future (Burawoy, 1998: 5).

1.4.3 Possible Limitations

Despite its advantages, this methodology also poses some limitations. Most significantly, my dual role of intern and researcher made it sometimes challenging to request and conduct interviews. Because China Vanke graciously hosted me in its Guangzhou office, I felt a responsibility to contribute to the office, not burden it. Colleagues were extremely helpful and agreeable in intent, but in practice they were difficult to pin down during their busy days. I quickly found, though, colleagues talked longer and more freely when they initiated conversations with me, so I followed this early precedent. Thus, the extended case method afforded me an important flexibility. Employing only scheduled, structured interviews would have forced me to miss out on valuable information from colleagues who were difficult to pin down for set time periods; instead, I sought people when they were available and also allowed them to seek me.

It is also important to address the language barrier as an additional limitation. Although I studied Mandarin for three years and lived in Beijing for one year, I am not fluent, particularly in real estate and housing terminology, vocabularies completely new to me. Likewise, my colleagues were unsure of their own English abilities, so in face-toface interviews and casual conversations we often struggled haltingly in both Mandarin and English. I discovered, though, that email correspondence provided an effective way to circumvent the language barrier and gather information and opinions. I would write questions in English and either send them directly to an interviewee or ask a colleague to translate them first. Then I would receive responses in Chinese and translate them on my

own—though a time-consuming task, it yielded good results and also helped me become more proficient in relevant terminology.

Chapter Two

The Market Hypothesis: Can China Vanke Harness the Private Market to Profitably Supply Affordable Housing?

2.1 Introduction: Comparing Economic Theories with Observations of China

This hypothesis derives from neo-classical economic theory that the market, comprised of the optimizing choices of individual firms and consumers, will efficiently determine output and price according to supply and demand. If the market hypothesis explains China Vanke's decision to build Wanhuilou, then this affordable housing project must provide the best return on the firm's investment in land and other costs. It must either represent the best profit-maximizing choice in the present or strategically position the firm to reap higher profits in the future. Thus, for the market hypothesis to be true, the underlying behavioral model is the firm's self-interest.

This chapter examines theories of efficient land and housing markets in conjunction with observations of China and China Vanke. As one of the country's first private real estate developers, China Vanke draws from a history of industry leadership, innovation, and financial success, so it is possible that the firm has discovered a new market niche where it can operate profitably. Section 2.2 introduces economic theory in the context of developing countries, observing a central debate on the appropriate level of government intervention in land markets. Section 2.3 examines the market in practice in China, tracking the development of a land market, the emergence of private real estate developers, and the evolving state of housing provision and consumption. Section 2.4 identifies China's market inefficiencies that have created a problem of unaffordable housing, locating these inefficiencies in a real estate market with too few players and

divergent price-rent ratios. Section 2.5 analyzes Wanhuilou against the context of typical commodity housing projects, examining the Guangzhou office's project portfolio in conjunction with Wanhuilou's project financials. This section concludes by assessing the explanatory power of the market hypothesis in terms of profit-maximization and repeated game theory, which test whether self-interest drives the firm's behavior.

2.2 Market Theory: Creating Efficient Housing Markets in Developing Countries

Just like other prices in a market, land prices perform two functions, allocation and distribution; through allocation land prices indicate to firms the value and optimal use of land, and through distribution land rents and increases in land values generate investment returns to land-owners (Ingram, 1998: 1028). Economists typically argue that individual firms and consumers make rational choices that create an efficient land market. While some government regulations, such as property rights, provide crucial measures to guide and protect the market, other involvements, such as large holdings of state-owned land or excessive zoning regulations, may serve to inefficiently price land and housing. David Dowall, an economist who frequently consults for international donor institutions and advises local governments on land markets, argues that these distortions drive prices higher and reduce land availability for low-income housing (1996: 17).

Dowall and other economists often point to China's land markets as an extreme case of governmental regulatory constraints. Governments can intervene in many different capacities, but government-controlled land distribution is one of the most damaging to the efficient allocation of resources. In a World Bank paper Dowall coauthored with Giles Clark, the urban economists recommend that countries must first

balance land supply with land demand. To execute this change, they argue, governments should turn over land holdings to the private sector, which will distribute and price land through the efficient market principles of supply and demand, rather than government objectives, which are often opaque and misguided (Dowall & Clark, 1996: 39). For example, in another paper referencing China, Dowall observes, when "the assignment of land reflects neither economic nor social opportunity costs, new users have no incentive to economize on their land use" (1993: 3).

Furthermore, when land developers do aim to maximize a land parcel's "highest and best use," they often encounter considerable controls, which economists identify as another damaging government intervention. The most significant factor of control is building density, which directly affects the value extracted from a land parcel: "when land prices are high, they indicate that the land should be developed intensively and/or be occupied by an activity that highly values the site" (Ingram, 1998: 1028). Because higher density building means vertical building, density cannot increase indefinitely, and in addition to sheer engineering limitations, consumers impose their own demand limits on high-density living, causing the market to set optimal densities. Most countries, though, do not rely solely on the market to determine density, and often for good reasons, such as preserving green space. Yet density has its rightful place in many situations, and it makes affordable housing viable (to sell units for lower prices and still recover costs or make a profit, developers must sell more units). But, as Dowall and Clark point out, "where controls have been enforced vigorously, land availability for low-income housing shrinks and housing costs increase" (1996: 21).

Although less government involvement in land allocation and land control may make affordable housing a market viability by reducing the price effects of these interventions, many argue that government involvement is necessary to make affordable housing a reality, and it important to note this debate in the literature. Two examples from Malaysia and India advocate different degrees of government intervention.

In a study of the government-sponsored Special Low Cost Housing Program in Malaysia, Stephen Malpezzi and Stephen Mayo examine an affordable housing project that relied on private developers to produce most of the units. The government provided a land subsidy for 60 percent of the units, and for the 40 percent of units to be developed on private sector land, the program enabled developers to achieve financial viability by permitting a mix of low- and medium-cost units. Employing a cost-benefit methodology, Malpezzi and Mayo posed the following system of evaluation: "If the economic cost/benefit is positive, the unit is *efficient*. If the developer's cost/benefit is positive, a supply response will be observed. If the purchaser's cost/benefit is positive, there will be demand for the units" (1997: 380). Although the housing units were efficient because their benefits to the economy outweighed their costs, and although demand for units would be strong because of purchaser subsidies, developers did not have proper incentives to supply the units because excessive regulations made them too costly to build. Density restrictions and other land use controls wasted approximately 25 percent of the land. The authors conclude that "the costs of regulatory and pricing restrictions far outweigh the benefits of subsidies and regulatory exemptions," thus recognizing the mixed results of government intervention (1997: 372).

In his examination of the Prashwanath Township project in Ahmedabad, India, Vinit Mukhija comes to a more forceful conclusion about the necessary role of government in housing development. India's Housing and Urban Development Corporation (HUDCO) initiated a partnership with the Prashwanath Group, a private developer with a track record of developing low-cost housing at profitable rates, in order to encourage the developer to expand its housing supply and "reach further down market" (Mukhija, 2004: 2234). The government provided the Prashwanath Group with shortterm construction financing under favorable terms and also refinanced the developer's loans to homebuyers to increase the firm's liquidity. In turn, the Prashwanath Group obeyed HUDCO's stipulations, including strict adherence to permitting procedures and other regulations that the firm had often ignored in the past to save money. The firm quickly discovered that legality attracted middle- and high-income buyers, and it abandoned its commitment to sell low-cost units. Although Mukhija observes that formalization thus "negated some of the incentives to develop low-income housing," he incongruously maintains "the need for a more engaged government involvement in framing successful policies" (2004: 2239; 2233). This contradiction is difficult to reconcile, but an answer seems to lie in the distinction between regulations and incentives: Mukhija advocates for carefully regulating the housing market rather than enabling developers with incentives, which he suspects will "produce highly uncertain outcomes" (2004: 2239).

In summary, land and housing market theories reveal a tension in the role of government involvement. Economists like Dowall argue that government interventions in land allocation and control lead to market inefficiency and thus limit the viability of

producing affordable housing. Malpezzi takes a more moderate approach, recognizing the benefits of government subsidies but also identifying the potential negation of such benefits due to excessive regulations. Mukhija takes a perspective opposite to Dowall's: just as Dowall distrusts the government to manage land and housing markets efficiently, Mukhija distrusts the private sector to manage affordable housing provision scrupulously.

2.3 Market in Practice: History of Land and Housing Reform in China

In the end, the theories explored above play out differently in different contexts, so it is important to now turn to China to understand why and how the government continues to regulate the market, even after economic reforms. The land market, housing market, and private real estate developers all emerged concurrently but not necessarily instep. Before examining land reforms and the emergence of a land market, it is interesting to note here that the government had been developing a private housing market since 1979, with concentrated activity during the 1980s and early 1990s; meanwhile, it did not enact significant land market reforms until the early 1990s. Although major housing reforms preceded land reforms in historical chronology, in the context of economic theory it is valuable to first examine the land market, because land prices ultimately determine housing prices. Moreover, this observation of a time lag serves to establish China's need for land reform, as its earlier system divorced the market connection between land and its built structures. Even if the government worked to privatize housing, "underinvestment through the administrative allocation of land and the fixity of the built environment inherent in project-specific development pushed down the rent that could be capitalized," creating inefficiencies (Wu, 1997: 646).

2.3.1 Emergence of a Land Market

After the Communist Party took control in 1949, the state owned all urban land and allocated it to work-units, or *danwei*, at no cost. Land was thus considered neither a "commodity nor an asset for producing economic wealth," creating a severe disconnect between economic efficiency and site determination (Ding, 2003: 110). The first inklings of land reform came in the early 1980s, after China had cautiously opened the economy to free-market principles and direct foreign investment had increased the demand for land. At first beginning only in the Special Economic Zones (SEZs), the government instituted land-use rights, which separated land ownership from land-use and leased land to investors for a fixed period of time.

Then, in 1991, the government announced that land users could let, transfer, rent, and mortgage land-use rights. The 1991 regulations, clumsily named "The Provisional Regulation on the Granting and Transferring of the Land Rights over State-Owned Land in Cities and Towns," defined land transactions on two separate levels. The first level allows the sale of land-use rights from a municipal government to a buyer through auction, tender, or negotiation, and it ensures that the government retains monopolization over land supply. The second level allows the transfer of land-use rights from one party to another, and in these transactions the government is involved only in land registration, legal protection, and taxation (Ding, 2003: 112). Finally, a more recent policy in 2001 aimed to increase market transparency and regulatory compliance through more open auctions and fewer private negotiations; by instituting local land banks, the central government armed cities as "super landlords" with the power to centralize land holdings and coordinate the market through open auctions (Hsing, 2006: 175). Taken together,

these reforms have led to significant positive changes, causing land markets to emerge and land prices to rationalize land-use decisions, and, as Chengri Ding notes in his comprehensive summary of the reforms, "land now has value and can produce economic wealth" (2003: 114).

Data from the *Statistical Yearbook of Guangzhou* illustrate the changing nature of the land market. Organized in the figure below are statistics on the leases (sold for a price) and the administrative allocations (distributed at no cost) of state-owned land use-rights.

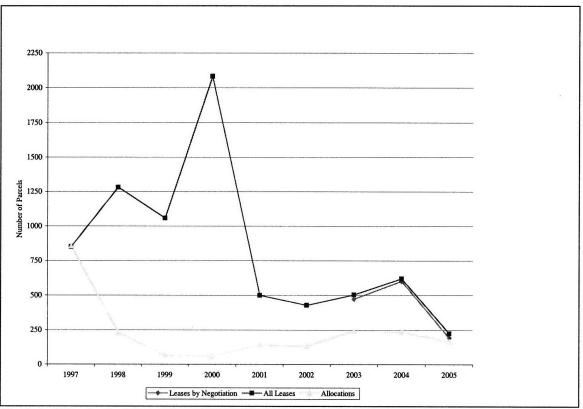
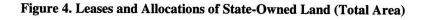


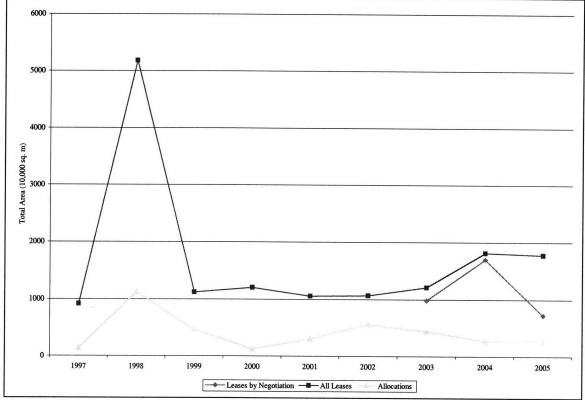
Figure 3. Leases and Allocations of State-Owned Land (Number of Parcels)

(Statistical Yearbook of Guangzhou, 1997-2005)

The Bureau of Statistics began reporting this data in 1997, and the most recent statistics available are from 2005; however, only in 2003 did the Bureau begin

distinguishing between negotiated leases and other leases by auction or tender. This distinction reveals an interesting trend in the structure of the land market. Although the number of negotiated parcels represents the vast majority of all leased parcels between 2003 and 2005, this share changes significantly when we analyze a different metric, the amount of total land area leased. This data is displayed in the figure below:

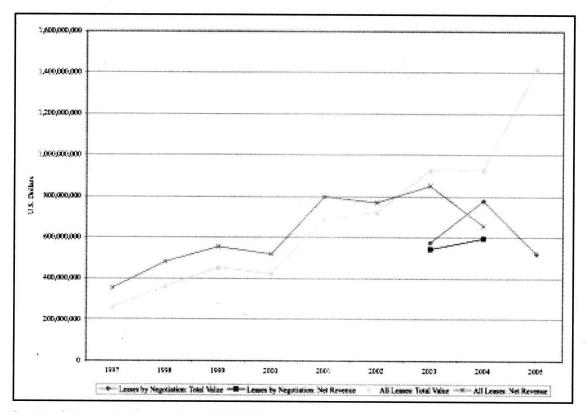




(Statistical Yearbook of Guangzhou, 1997-2005)

In 2004 negotiated leases still constituted the majority of land area transacted— 17,020,000 square meters out of 18,150,000 square meters, or 94 percent—while in 2005 negotiated leases made up a much smaller share of the total—7,230,000 square meters out of 17,780,000 square meters, or 41 percent. Therefore, leases by auction or tender constitute a significantly larger share of the state-owned land market, a trend that reflects the 2001 land bank policy. Both of the figures above show more constant patterns in state-owned land allocations, which remain far below the leased land area and leased number of parcels, with the exception of 1997. Altogether, these data show that the government has increasingly turned to the open market, rather than an allocation system, to release land.

Data from the *Statistical Yearbook of Guangzhou* reveal another significant trend in the Guangzhou land market: rising prices. The figure below displays the transacted value and net revenue for all leases, and, when available, for negotiated leases in specific: **Figure 5. Sales Price and Net Revenue for Leases of State-Owned Land**



(Statistical Yearbook of Guangzhou, 1997-2005)

As expected, net revenues closely follow sales prices for all leases. Even though these figures have fluctuated over time, they demonstrate a clear pattern of overall growth, and the most recent data show that the average price per square meter rose 51 percent between 2004 and 2005, an astonishing increase for all lease transactions.

2.3.2 Emergence of a Housing Market

Like most Communist countries, China's pre-reform housing system operated on three fundamental conditions: 1) housing was a welfare good, not a commodity; 2) the state controlled housing investment and construction; and 3) the work-unit allocated housing to individuals (Gu, 2002: 181). This system of course informed the government's early housing reforms, which Edward Gu succinctly describes in four stages. The first began in 1979, when the government started a program to sell subsidized housing at onethird the cost to buyers; this scheme failed, though, because local governments and workunits struggled to provide the substantial subsidies required. Following this initiative, in 1986 the government attempted to raise rents, which the system had kept artificially low, but this plan was derailed when the country faced tremendous inflation in 1988. In that same year, the government initiated the third major phase of reform, abandoning the rent scheme to again promote sales, but the prices fell far short of capturing actual costs, as housing units sold for 5 percent to 15 percent of cost. 1991 marked the beginning of the fourth and most aggressive period of housing reform, when the government mandated nationwide adoption of the "Shanghai Model." This model included housing provident funds, rent increases with subsidies, housing construction bonds, public housing sales to sitting tenants, and the establishment of municipal housing authorities (Gu, 2002: 184-6). This history shows that the government tried to jumpstart the housing market through a

number of different initiatives, including selling its housing stock without major price distortions, which, as the previous section revealed, was not true for the land market.

2.3.3 Emergence of Private Real Estate Developers

In his chronology of housing reforms, Gu does not address the emergence of private real estate developers, which represented an important component of housing's privatization. Abandoning its historical monopolization of housing production, the state turned to private real estate developers to produce new housing. As of 2005 there were 3,286 real estate enterprises operating in Guangzhou, with 30,393 total employees and \$1.386 billion in registered capital (*2005 Statistical Yearbook of Guangzhou*, 2006). Just as the government experimented with the first land reforms in the SEZs, it also used these cities as test cases for a private real estate industry. When the government first transferred large amounts of land to would-be developers at very low prices, "a new generation of local developers was cultivated by the capitalized profits when the value of land, one of the most valuable commodities, was boosted by soaring property prices" (Zhu, 1999: 542).

A brief snapshot of these rising prices is displayed in the following figure, which displays statistics of commodity housing transactions in Guangzhou. The high demand for this housing means that many residential projects sell out before developers finish construction, and the *Statistical Yearbook* distinguishes sales of completed units from advance sales of units still under construction. From 2002 to 2005 the average prices per square meter rose 25 percent for advance sale housing, 40 percent for new completed units, and 33 percent for existing buildings in stock.

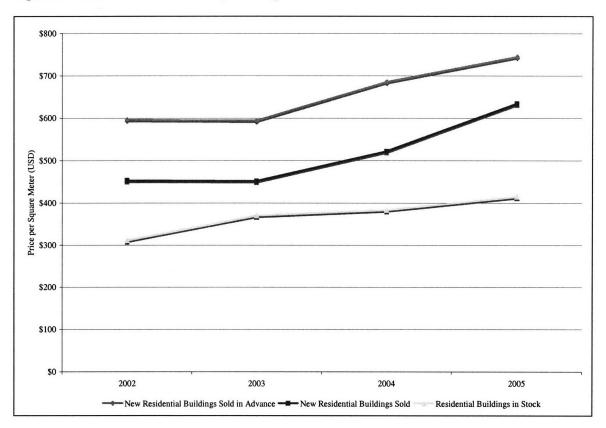


Figure 6. Transactions in Commodity Housing Market

(Statistical Yearbook of Guangzhou, 2006)

In summary, over the last 25 years the Chinese government has pursued an ambitious series of reforms to create land markets, housing markets, and private real estate developers, yet these reforms have not created a truly efficient market for reasons discussed in the next section.

2.4 Market Inefficiencies: The Problem of Unaffordable Housing in China

2.4.1 The Relationship Between Land, Housing, and Developers

While marking a significant step in creating an efficient market, recognition of land's economic value has in turn triggered additional distortions in the land market. Regulations have not prevented "hidden" land markets in which "huge profits provided economic incentives for illegal land transactions" because of land supply constraints (Ding, 2003: 115). These hidden markets have encouraged land opportunism and have created price distortions that reverberate in the government's land allocation system. Although local governments have historically kept tight reins on their land supply, in recent years municipal land bureaus have significantly increased land sales in an effort to meet developers' demand and lower prices, but at government auctions land prices continually break records (Zhan, 2007) and ("The Most Expensive Land in Guangzhou", 2007).

Fueling developers' demand for land is consumers' demand for housing. China's "clique of nouveaux riches [are] willing and able to pay extraordinarily high prices" for developers' "commodity" housing (Chen, 1996: 1088). This phenomenon has created two separate markets for the private sector's housing: individuals in China's small but growing upper class and state-owned enterprises that allocate housing units to workers at highly subsidized rents.

This dual system has created market inefficiencies that have made housing unaffordable for many of China's residents. This trend is evident in a comparison of Guangdong's household income and housing price growth rates, displayed in the following figure:

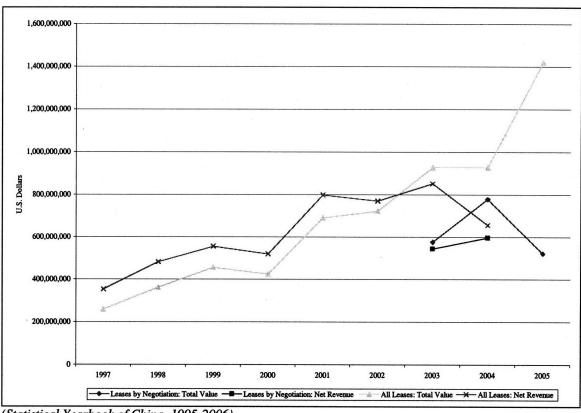


Figure 7. Guangdong's Household Disposable Income Versus Housing Price

With the exception of 1997, during the seven years between 1996 and 2003, the growth of average household disposable income remained higher than the growth rate of housing prices. Between 2003 and 2004, however, housing prices increased 10 percent, and the following year they increased more than 25 percent, while household disposable income grew by only eight percent. This dramatic disparity between disposable income and housing price growth rates makes it extremely difficult for households to accumulate sufficient savings for a down payment.

2.4.2 Closed Real Estate Market

Creating this unaffordability are two market inefficiencies that reinforce one another: a closed real estate market with too few players and wildly divergent price-to-

⁽Statistical Yearbook of China, 1995-2006)

rent ratios. Private developers are the predominant supplier of housing, but the principal demand comes from work-units, which controlled the majority of China's pre-reform housing stock and have increased their share of ownership over time, from 53.3 percent in 1982 to 63.3 percent in 1995 (Wu, 1996). Although work-units were able to sell off large amounts of existing housing to sitting tenants, they "have not given away their redistributive role in the housing system" because they represent the principle consumers of new housing produced by private developers. The resulting system of so few players has not created a truly open, fair, and efficient market. In her analysis of foreign investment in local real estate markets, You-tien Hsing notes, "the dominance of state danwei-originated land masters and large developers with large land reserves. . .has effectively created a closed land market" (2006: 178). The barriers to entering individual markets are high, creating an uneven playing field.

Moreover, rents rarely reflect efficient market principles when work-units offer housing units to individuals (Wu, 1996: 1613). For example, work-units may allocate housing based on an employee's political clout, not on his willingness to pay, and, moreover, the high market prices often mean that work-units must heavily subsidize the rents of housing units. Low- and middle-income people who do not benefit from workunit housing and who cannot obtain municipal public housing—whether because of its persistent shortage or because they do not qualify—often end up living in run-down, crowded apartment buildings or in less convenient housing in the urban fringes (Zhu, 2004b: 435). Thus, private housing development "has failed to meet the target of providing housing for ordinary urban residents—the majority of workers and employees in the private sector" (Wang & Murie, 2000: 1488).

2.4.3 Divergent Price-to-Rent Ratios

Nor has privatization of supply erased heavy subsidization, which has simply been transferred from the central government to work units. Aimin Chen argues that China's urban housing market "hinges on a rational price-rent ratio" which makes residents indifferent between renting and owning (1996: 1077). It can also signal the onset of a "housing bubble" when home prices increase rapidly in comparison to rents and thus provides an important indicator of a housing market's efficiency. China's priceto-rent ratios are now extraordinarily high because of the dual market system. The prices of commodity housing continue to climb, fueled by demand from China's moneyed classes, and are increasingly unaffordable for the majority of urban residents. Meanwhile, subsidies from work-units to individuals serve to artificially suppress rents, so the priceto-rent ratios are extremely high.

Thus, market inefficiencies have created a severe affordability problem that lies both in the private sector, where newly built housing remains far too expensive for the average worker, and in the public sector, where low-cost housing is in shortage because maintenance costs far exceed rent revenues. The enterprises that provide subsidized units to their employees fill an obvious gap between the luxury housing market and the municipal public rental sector, but this amount of worker housing fails to meet the population's needs, and, moreover, it remains economically inefficient.

2.5 China Vanke's Portfolio: The Low-Income Anomaly Among High-Income Projects 2.5.1 Overview of Projects

After charting the development of China's real estate market and establishing the problem of unaffordability, this section focuses the examination at the firm level, seeking to understand how China Vanke operates in the market and why it has chosen to build an affordable housing project.

In a series of interviews, Mr. X, a senior employee in the firm, traced the general chronology of the Guangzhou office's land acquisitions and project plans. This brief history shows the tremendous growth of the Guangzhou office's business and also illuminates the Guangzhou real estate market.

When Mr. X began working in the Guangzhou office in 2004, after working for China Vanke since 1988, the Guangzhou office had only three projects underway. Projects, of course, are contingent on land acquisition, so over the last three years the business development group has worked very hard to increase the office's land bank. In the early years at the Guangzhou office, the business development team focused on the second level market—negotiated land deals between private parties—instead of the first level market—land acquisitions from the government through auction, tender, or negotiation. Between 2002 and 2005, for instance, it purchased five land parcels, and four were second level transactions. They initially focused on the second level market because of supply constraints in the first level market. Mr. X noted that the government's land bank is relatively small, echoing observations in literature about Guangzhou, which, with its proximity to Hong Kong and Shenzhen, accelerated market reforms and released much of its state-owned property early on (Dowall, 1993: 4). Trends in the first level

market are changing, though, and while the government may not have huge coffers of land, it is releasing its holdings more rapidly. In an effort to lower housing prices and regulate the market, the Guangzhou government announced in 2007 that it would sell five million square meters per year for the next five years. The office's land acquisitions reflect this trend: since 2006, nine out of its 13 projects are on first level land. Similarly, it significantly boosted its land holdings in 2007, buying eight parcels in that year alone.

When buying land, whether first or second level, China Vanke adheres to a minimum profit rule of nine per cent. Most of the time, though, profits are much higher— 15 per cent or more—and typically exceed expectations, as the following two accounts show. When the office bought the land for its Vanke Cheng development in 2005, the land cost \$200 per square meter and the projected housing price was \$960 per square meter, but the actual sales price today is about \$1,930 per square meter. Also in 2005 the office purchased land for its Jinse Garden project at \$450 per square meter, and the projected sales price for the project was \$1,240 per square meter; the actual sales price, however, has risen to \$3,450 per square meter.

Excluding Wanhuilou, China Vanke's Guangzhou office currently has 18 projects in its portfolio, ranging from those completed to those still under construction or in the design phase. Presented in the table below are summary statistics for the 18 projects:

Project Averages	Value
Site Area (square meters)	97,546
Gross Floor Area (square meters)	163,433
Number of Units	1,361
Cost of Land/Square Meter GFA	\$543
Unit Sales Price/Square Meter	\$1,823

Table 1. Summary of Guangzhou Projects

China Vanke's average price per square meter is more than two and a half times higher than the 2005 average for Guangzhou, \$690 (this number represents the average of newly completed housing and advance sale housing). This important difference indicates China Vanke's place in the higher-end market.

2.5.2 Wanhuilou Project Financials

While I could not access the proprietary information on China Vanke's costs for the 18 projects discussed above, I did gain permission to collect detailed costs and revenues for Wanhuilou, which falls outside the company's standard cost and revenue structure for its market projects. Even though I do not have comparable figures for the office's other projects, an isolated analysis of Wanhuilou's costs and revenues still proves valuable, as it shows that this profit-losing project represents an anomaly for a firm that adheres to a minimum profit of nine percent for its other projects.

Investment costs for Wanhuilou total \$6.38 million, and the Guangzhou office is supplying \$4.28 million of the initial investment costs (China Vanke Company, 2007b: 28). The difference of \$2.10 million represents Guangzhou's projected profit earnings for 2008, the year Wanhuilou will be completed. China Vanke's central office will reimburse the Guangzhou office with that amount. Although I pressed different people for more detailed explanations about the unobvious logic behind this method, including a designer, human resources manager, and Wanhuilou's operations manager, their responses served to confirm that the office received a directive from China Vanke's headquarters, with Chairman Wang Shi leading the effort, and the local office simply had to follow it.

project, a significant consideration given the financial and human resources that the firm must devote to it. While I tried to ascertain the reasons behind the project's timing, I could only glean that quickly breaking ground on its construction seemed imperative for the firm to back up their promise with the product.

A brief analysis of the project's costs and revenues illustrates the project's financial performance. First, detailed investment costs are listed in the following table:

Cost Category	Residential Space	Commercial Space	Total	
Land	\$1,173,261	\$416,098	\$1,590,723	
Development Preparation	\$287,858	\$40,928	\$328,786	
Construction	\$2,796,726	\$285,130	\$3,081,855	
Infrastructure/Equipment	\$200,546	\$23,192	\$223,738	
Piping	\$264,666	\$38,199	\$302,865	
Landscaping	\$160,982	\$23,192	\$184,175	
Other Facilities	\$15,007	\$2,729	\$17,735	
Indirect Costs	\$364,256	\$73,670	\$437,926	
Periodic Project Site Costs	\$99,591	\$42,292	\$141,883	
Total Investment	\$5,362,892	\$945,430	\$6,308,322	

Table 2. Investment Costs for Wanhuilou

(China Vanke Company, 2007b: 28)

Finally, a comparison of Wanhuilou's operating costs and revenues, displayed in the following table, completes the project's financials:

Costs	Total Annual Cost
Security Service	\$8,840
Cleaning Supplies	\$819
Cleaning/Garbage Removal Service	\$2,456
Gardening/Grounds service	\$737
Gardening Supplies	\$327
Public Maintenance Service	\$3,274
Public Maintenance Supplies	\$1,637
Payment for Residents' Work	\$7,367
Salary for Project Manager	\$8,868
Total Costs	\$34,325
Revenues	Total Annual Revenue
Projected Residential Rents	\$166,320
Projected Commercial Rents	\$7,200
Total Revenues	\$173,520
Annual Net Cash Flow	\$139,195

Table 3. Annual Operating Costs and Revenues for Wanhuilou

(China Vanke Company, 2007b: 32)

This report of Wanhuilou's investment costs and operations demonstrates the project's financial burden in comparison to China Vanke's other projects, but it does not reflect the additional challenges involved in embarking on a wholly unique project, such as conducting the several market and design studies, which were necessarily different from its standard pre-construction research. This project also represents the firm's first endeavors in providing rental housing and in attracting and serving a very different clientele. Though less quantifiable at the outset, potential difficulties may present additional costs as the firm learns how to manage these new activities.

2.5.3 Testing the Market Hypothesis: Profit-Maximization and Game Theory

The first test of the market hypothesis is profit-maximization: if the market is driving China Vanke's decision to build Wanhuilou, then it must represent the best choice to maximize profit. Because Wanhuilou is located on the firm's previously owned land adjacent to Wonderland, an existing development, we can reference the sales price of a Wonderland unit to demonstrate the market price that could be extracted from Wanhuilou's site. In Wonderland the sales price per square meter is \$810, while the rent per square meter in Wanhuilou is only \$1.55. This price-to-rent ratio of 522:1 is undoubtedly irrational, especially given that Chen's examples of China's divergent priceto-rent ratios range from 25:1 to 50:1 (1996: 1085). In comparison, the ratio of Wonderland's price to Wanhuilou's rent ratio is off the charts. Even though China Vanke can afford to build Wanhuilou because of its position in the market and its profits on other projects, these conditions still fail to explain why the firm would want to take on a project that so dramatically undercuts its best profit-maximizing opportunity.

But in situations where a firm's optimal actions depend on others' actions, the market hypothesis requires a second test that references game theory. As Avner Greif points out in a primer on the subject, game theory is relevant to the social sciences because it "captures an essential part of all exchange relationships—personal, social, economic, political" (2006: 413). Moreover, exchange is sequential, as a firm typically must give something before receiving something in return. Repeated game theory extends this idea, demonstrating that in situations where exchanges are repeated, firms must choose between present and future gains. Using a simple prisoner's dilemma game to illustrate this concept, Greif shows that if one firm "defects" from the cooperative

strategy that maximizes both players' gains, it will receive a large immediate gain from the first exchange. As soon as this firm defects, however, both firms will defect forever, and the firm will lose future gains from cooperation (Greif, 2006: 419).

In regard to China Vanke's strategy, this theory suggests that maximizing profit on every single project may prove a myopic strategy that damages the firm's future opportunities, so Wanhuilou may represent a calculated decision to forego profit on one project in order to benefit from future cooperation, whether with government officials, customers, or business partners. This cooperative strategy necessitates, however, that a firm can quantify and value future gains enough to wait for them. An annual net cash flow of \$139,195 means that the project will not recover its investment costs for 45 years, a considerable time lag given the significant investment costs of \$6.38 million. A few colleagues discretely suggested skepticism about Wanhuilou because of the considerable profit loss that the Guangzhou office will bear alone.

The game theory explanation would therefore require an extraordinary preference for unquantifiable gains in the distant future over the guaranteed profits in the present. For example, it could be possible that China Vanke intended to use this project to establish a future foothold in a new part of the city, but this theory does not prove true because the firm committed to building an affordable housing project before it determined the location. In a similar scenario that values the future over the present, China Vanke could plan Wanhuilou with the intent of eventually redeveloping it for a higher market, but this suggestion also seems unreasonable, given the project's extremely unusual design and high density.

Thus, even in the context of repeated game theory, the market hypothesis seems to remain an implausible explanation for China Vanke's motivation to build Wanhuilou. In summary, an examination of the office's project portfolio provided specific insight into the commodity housing market in Guangzhou. It also established a frame of reference for analyzing the financial performance of Wanhuilou, proving its contradiction to profit-maximization and repeated game theory strategy. Thus, self-interest in the market does not drive China Vanke's behavior behind Wanhuilou.

2.6 Conclusion

This chapter has examined the market hypothesis as a possible motivation for Wanhuilou, comparing theories of land and housing markets with observations of China and of Wanhuilou in specific. Section 2.2 introduced economic theory in the context of developing countries, observing a central debate on the appropriate level of government intervention in land markets. Section 2.3 examined the market in practice in China, tracking the development of a land market, the emergence of private real estate developers, and the evolving state of housing provision and consumption. Section 2.4 identified China's market inefficiencies that have created a problem of unaffordable housing, locating these inefficiencies in a real estate market with two few players and divergent price-rent ratios. Section 2.5 analyzed Wanhuilou against the context of typical commodity housing projects, examining the Guangzhou office's project portfolio in conjunction with Wanhuilou's project financials. This section concluded by assessing and rejecting the explanatory power of the market hypothesis in terms of profit-maximization and repeated game theory.

In conclusion, this chapter demonstrates that the market hypothesis does not explain why China Vanke would build Wanhuilou. When self-interest is the behavioral model underlying a firm's market actions, it is irrational for China Vanke to initiate, build, and subsidize an unprofitable project when it can sell units in the luxury market for extraordinarily high prices. At its core, land and housing market theory establishes land as a commodity that can produce economic wealth through its built structures. For-profit firms make choices to maximize this wealth, but with Wanhuilou, China Vanke rejects market rationality to provide a profit-losing affordable housing development.

Chapter Three

The Policy Hypothesis: Can the Government Create Incentives for China Vanke to Build Affordable Housing?

3.1 Introduction: Comparing National Policies with Observed Responses

This hypothesis develops from the basic idea that governments have a fundamental role in all markets to address market inefficiencies and promote social benefits; in this case, the hypothesis would suggest that the Chinese government can use strategic incentives to promote the low-income housing development that the rational, profit-maximizing firms neglect, whether through government-sponsored programs or policy mandates. If national policies and programs explain Wanhuilou, then we should expect China Vanke to be responsive to them, and, like in the market scenario, the motivating behavior would be the firm's own self-interest as it takes advantage of available incentives.

This chapter therefore explores whether China's national policies and programs effectively engage private developers' participation. Given the central government's active policy-making and programming to increase affordable housing in the last three years, this hypothesis could provide a timely explanation for China Vanke's behavior. Section 3.2 presents the significant affordable housing initiatives and regulatory guidelines that have marked the housing market's recent history. Section 3.3 observes examples of implementation, which differ considerably according to local governments' funds, needs, and strategies. Section 3.4 examines responses to policies and programs at the firm level, noting that China Vanke ostensibly welcomes industry regulation but does not participate in government-sponsored affordable housing programs, instead providing its own unique affordable housing model with Wanhuilou.

3.2 Recent National Policies: Supplementing and Regulating the Market

3.2.1 Affordable Housing Programs

Recognizing that housing's privatization has created a shortage in affordable units, the Chinese government has launched a series of semi-successful programs to provide more affordable housing. Three initiatives deserve particular mention, beginning with the Affordable Housing Program (*Jingji Shiyong Fang*). Commenced in 1994, this program provides a government subsidy in state-owned land to build housing for lowermiddle- and middle-income households. Relying on private developers to build the units, which are smaller than typical commodity housing units, the program caps developers' profits at three percent and monitors their selling prices to ensure that developers do not capture the subsidy. These checks on developers, however, are not matched by appropriate checks on buyers, as the annual income threshold of RMB 60,000 (about \$8,300) makes upper-middle class households eligible, while the reduced prices are often still too high for low- and middle-income residents (Duda, Zhang, & Dong, 2004: 6).

Alongside the Affordable Housing Program the government also initiated the Housing Provident Fund (*Zhufang Gongjijin*), a savings program to assist home financing. By increasing incomes and directing those gains to compulsory housing savings accounts, this program addresses the dual market problem observed in Chapter Two, attempting to enable individuals to purchase housing directly from the market instead of relying on state or work-unit provision. Individuals can use Housing Provident

Funds (HPFs) for outright housing purchases, down payments, or mortgage payments. The main problem with this program lies in its limitations, which ultimately overlook the target population. Only state-owned enterprises are required to contribute to their employees' funds, excluding the majority of low-income workers who are not in the "official, full-time, and typically public sector positions likely to carry an HPF benefit" (Duda, Zhang, & Dong, 2004: 5). Moreover, because the employer's contribution is tied to income level, the funds are also inherently income-regressive, making it difficult for low earners to accumulate significant savings (Duda, Zhang, & Dong, 2004: 5).

In 2000 the government added to its homeownership programs with a rent subsidy scheme for lowest-income households earning between RMB 9,500 and 10,500 annually (about \$1,300 to \$1,450) (Mostafa, Wong, & Hui, 2006: 64). Despite this initiative, the vast majority of rent subsidies are not channeled to the lowest-income population because work-units continue to subsidize rents for many workers who are middle- to upperincome earners, as established in Chapter Two.

In December of 2007 the government expanded its homeownership program to target the lowest-income households, giving preference to cities' land-use applications that include affordable units sized 50 square meters or less. Local governments will be responsible for implementing this strategy, subsidizing it through a combination of rental fees on low-rent housing, credit risk reserves, HPFs, and donations; local governments will also be required to spend 10 percent of local land use fees on this affordable housing (Hu, 2007).

These four programs target the affordable housing shortage in two ways: one, developing more affordable units through a combination of state-owned land subsidies,

local government budgets, and developer profit caps; and two, increasing individuals' access to financing, either through HPFs or rent subsidies. An analysis of these programs shows mixed results. On the demand side, eligibility requirements and price breaks fail to address the needs of the target population. On the supply side, the implementation and budgetary onuses on local governments mean that programs may not be executed as the national directives intend.

3.2.2 Industry Regulations

In addition to its own programs directly addressing the affordable housing need, in recent years the Chinese government has issued a series of macro control policies in an attempt to regulate the real estate market and thus indirectly lower prices. In 2005 the government launched a set of policies to address the affordable housing crunch: the main points in these Eight Measures recommended that low- to medium-end units should make up the majority of new residential development, they indefinitely halted new villa developments, and they gave local governments the responsibility of stabilizing house prices.

In 2006 the government took still stronger action to address continuously rising prices. Its Six Measures highlighted constructing smaller units, suppressing speculation, rationalizing the pace of housing demolition, rectifying unlawful industry practices, increasing construction of affordable units, and promoting market efficiency and transparency (CB Richard Ellis, 2007a: 3). The accompanying 15 Implementing Regulations specify how the Six Measures will be enacted. Among these regulations, the most controversial provision is the 90/70 Rule, which requires that 70 percent of all

future residential units be 90 square meters or less. Because the real estate industry's target markets—upper-middle- and upper-class households—have historically demanded increasingly large units, the 90/70 Rule could significantly change housing production and consumption. A stipulation suggests, however, that the 90/70 Rule will be subject to local discretion, as municipalities may apply for approval "if there are any special conditions that require adjustments to the ratio" (CB Richard Ellis, 2007a: 4).

China's most recent regulatory act addresses housing finance in an effort to squelch speculative buying and lower prices. In September of 2007, the central bank raised the minimum down payment on second homes to 40 percent, and it also increased the interest rate on second homes by 1.1 times the benchmark increase (Shangguan, 2007). The resulting lending crunch slowed the growth of prices during the fourth quarter of 2007: in Guangzhou, for example, high-end apartment prices grew by only 1.6 percent, a dramatic decrease from the 10.6 percent growth rate observed in the third quarter. The average price in the high-end market, though, remained high at \$2,345 per square meter, fueled by the price surges in the previous three quarters (CB Richard Ellis, 2007b: 10).

Although this latest regulation has generated an immediate reduction in demand of commodity housing, it remains less clear how the other industry guidelines have affected the actors—private developers and local governments—responsible for their implementation. For one, increased industry regulations take time to register among developers, who plan housing projects years in advance and cannot necessarily halt or change construction easily. Secondly, as with the government-sponsored housing programs, these policies significantly hinge on the action of local governments, so responses may differ across cities.

3.3 Local Implementation: Constructing Affordable Housing

This section briefly examines affordable housing initiatives in different cities, showing the disparate trickle-down effects from national policy to local implementation. This variance likely depends on a city's available funds and needs for affordable housing initiatives. For example, in addition to the central government's record investment of RMB 7.04 billion (\$970 million) into its most recent program targeting homeownership among lowest-income households, the program's goals will require a total of about RMB 50 billion (\$6.9 billion) every year for the next five years, and a significant portion of that must come from the coffers of municipalities (Hu, 2007).

Recent news stories track the affordable housing activity occurring in four of China's largest cities. The Guangzhou government announced it will spend RMB 1 billion (\$137 million) in 2008 to provide more low-rent apartments and units for sale to lower-middle income families ("US\$138m Earmarked for Guangzhou Public Housing", 2008). In Shanghai the government reported a larger contribution, funneling RMB 2 billion (\$276 million) into low-rent apartments. Beijing recently reported that in 2008 it will devote RMB \$2.9 billion (\$400 million) to building or allocating low-rent housing ("Beijing to Curb Prices, Provide More Low-Rent Homes", 2008). The Chongqing government announced that it plans to spend a staggering RMB 100 billion (\$13.8 billion) over the next five years to demolish and renovate old and derelict housing, and the new and improved structures will house low-income families (Huang & Chen, 2008). The details of these press releases are organized into the following matrix:

City	Time Period	Spending	Space	Affordable Housing Strategy			
•				Allocating Low-Rent Units	Constructing New Low- Rent Units	Constructing New Units for Affordable Ownership	Renovating/ Rebuilding Derelict Housing
		(millions USD)	(millions sq. m)				
Beijing	2008	\$400	0.5	X	X		
Beijing	2008	\$80	N/A				X
Beijing	2008	N/A	7.5			x	
Chongqing	2008 - 2013	\$1,380	7.0				x
Chongqing	2008	\$137	1.8	x			
Guangzhou	2008	\$137	9.0	x	x	x	
Shanghai	2008	\$276	0.5	x	x		

Table 4: Affordable Housing Initiatives in Four Chinese Cities

Of course, cities have different needs and different funds, and these variables affect the amounts of money spent. The unexplained differences in these stories are the strategies that cities use to tackle their affordable housing shortages—for instance, why Beijing will build new housing while Chongqing plans to renovate old housing. Moreover, news reports consistently neglect implementation strategies, even though how the cities are able to implement affordable housing programs likely affects what programs they undertake. Given that private real estate developers now represent the majority of housing suppliers, cities must rely on developers to implement any strategies involving new construction, but that connection remains unclear from the above analysis, which focused on the link between national policy and local government implementation. The next section begins to establish the role of the developer in this picture.

3.4 China Vanke's Responses: Rhetoric and Action

3.4.1 Annual Report

In his opening address to shareholders in China Vanke's 2005 Annual Report, Chairman Wang Shi's main message—repeated throughout his brief remarks—directly addresses the government's regulatory measures with a strong and positive response. In regard to the 2005 Eight Measures, he writes: "when property prices rise to extraordinarily high levels or exceed the affordability level of low-income groups, it is legitimate for the government to take control measures" (2005: 32). Wang Shi, though, goes beyond just positive acceptance of industry regulations, making a commitment to finance research on the affordable housing problem. He writes, "We will continue to promote rational thinking on the solution to the housing problem of low- to mediumincome families," an initiative that he backs up with two research programs: one, a joint effort with the British consulate to compare affordable housing needs in Britain and China, and two, an agenda under the guidance of the Ministry of Construction to explore the needs of low- and middle-income residents (China Vanke Company, 2005: 34).

In 2006 Vanke commenced research in Beijing, Shanghai, and Guangzhou to better understand the current housing conditions and needs of the cities' working classes, collecting data on household income, housing costs, and other expenses. Through surveys, interviews, and photographs, researchers compiled a grim picture of low-income housing: families crowded into apartments smaller than 20 square meters and anywhere from six to ten workers packed into bunkrooms of a similar size, all with rundown facades, moldy interiors, and no indoor plumbing.

3.4.2 Wanhuilou's Affordable Housing Contribution

Wang Shi followed his strong words in 2005 with even stronger action in 2006, when he initiated China Vanke's effort to research, design, and commence construction on the firm's own low-income housing development. While the previous chapter evaluated Wanhuilou against market principles, this section examines Wanhuilou in the context of affordable housing provision, examining the population it serves and the particular benefits it provides.

To understand the affordable housing needs of its target low-income population, China Vanke began planning Wanhuilou with a research questionnaire. It mainly interviewed its own service and maintenance employees working in different Guangzhou developments, as they provided an easily accessible sample of the firm's target demographic groups. The firm issued two hundred questionnaires to gauge their reactions to the tentatively planned design, facilities, and rents. Although for research purposes China Vanke focused on its easily accessible workers, China Vanke identified affordable housing needs of other groups, such as workers employed in nearby factories.

Wanhuilou will accordingly house a mix of people, but it is important to note the relatively high proportion of its own employees: it expects to fill 165 of the 297 total units with its workers (this proportion is even higher if we include the property management employees, who work at Vanke projects in outsourced positions). Although I tried to inquire further into the reasoning behind a project that largely serves the firm's own employees, I could not obtain a clear answer—my colleagues did not seem to find this characteristic unusual or noteworthy. Perhaps the firm targeted its employees in an effort to simplify the work required for this experimental project—for example,

researchers had already sampled employees and thus knew their demands and constraints, as well as their willingness to pay. Perhaps, too, this strategy invites less risk, as China Vanke employees may be less critical (or at least publicly so) of a project sponsored by the firm. Despite the large proportion of employees, though, the Guangzhou office ultimately considers this project an affordable housing development for the greater community, not a worker housing project.

To meet the different demands among the project's tenant mix, Wanhuilou will also offer different types of units. Although all units will be identical in size—35 square meters—changeable interior configurations can accommodate different household types. Single families, for example, may choose a layout with one, two, or three bedrooms. Young single people may decide to double up in an apartment, while still others may form groups of four to share a dormitory-style design. Altogether Wanhuilou will house about 1,800 people (China Vanke Company, 2007b: 7, 10). The tentative breakdown of residents, as well as their expected unit type, is listed in the table below:

Resident Type	Number of Units	Type of Unit
Current Vanke Employees and Their Families	65	Single Family
Current Single Vanke Employees	70	Shared Apartment
Property Management Company Employees and Families	50	Single Family
Cleaning/Maintenance Staff and Families	30	Single Family
Low-Income Households with Government Subsidy	5	Single Family
Nearby Factory Workers and Other Single People	19	Dormitory
Other Low- and Middle-Income Workers	58	Dormitory

Table 5: Breakdown of Resident and Unit Type in Wanhuilou

(China Vanke Company, 2007b: 8)

Of the 180 questionnaire respondents, 160 individuals expressed interest in living in Wanhuilou, so China Vanke early on established high demand for the project. This demand is logical, as Wanhuilou represents rather atypical affordable housing in its combination of low rents, high-quality units, flexible layouts, and on-site amenitiesappealing bonuses that government regulations do not require and that public housing does not provide. Although the firm is attuned to minimizing project costs, Wanhuilou's chief designer quickly pointed out that "low-cost does not imply low-quality," and China Vanke is committed to delivering a project that reflects its high standards in other developments. Another approach that China Vanke transfers from the rest of its projects is a mixed-use design, as Wanhuilou includes 400 square meters of commercial space for a grocery store and other retail offerings. In addition to commercial space, Wanhuilou also provides common facilities, such as basketball and badminton courts, a library, and an Internet café (China Vanke Company, 2007b: 11). Although on-site retail stores and recreational facilities represent standard fixtures in China's commodity housing developments, they are anomalous to low-income housing. Moreover, when monthly rent in nearby government-subsidized housing is RMB 500 (\$70) for a similarly sized unit, Wanhuilou's standardized rent of RMB 400 per unit represents an even more affordable price for higher-quality housing (China Vanke Company, 2007b: 15).

The project's "self-service" system enables China Vanke to provide the firm's trademark level of amenities while still keeping costs low. China Vanke will look to Wanhuilou's residents to fill part-time cleaning, security, and gardening jobs with a predetermined pay schedule and fixed number of hours. The author of an operations planning document highlights the social benefits of this system, noting how "China Vanke will also provide the opportunity to earn a part-time income and a good community culture" (China Vanke Company, 2007b).

While Chapter Two demonstrated that Wanhuilou represents an anomalous project in terms of both China Vanke's portfolio and market principles, this particular analysis shows that Wanhuilou is also unique in the context of affordable housing provision in China, with high-quality units, on-site amenities, and lower rents than in a nearby government development. This section also reveals a significant division in China Vanke's response to national policies and programs: although the firm responded positively to government regulations aimed at stabilizing the housing market, it has not participated in government-sponsored affordable housing programs, instead building a unique development on its own.

3.5 Conclusion

This chapter has explored the policy hypothesis as a possible explanation for Wanhuilou, examining whether China's national policies and programs could incentivize China Vanke to build its affordable housing project. Section 3.2 presented the significant affordable housing initiatives and regulatory guidelines that have marked the housing market's recent history. Section 3.3 observed examples of implementation, which differ considerably according to local governments' funds, needs, and strategies. Section 3.4 examined responses to policies and programs at the firm level, noting that China Vanke ostensibly welcomes industry regulation but does not participate in governmentsponsored affordable housing programs, instead providing a unique contribution with Wanhuilou.

Thus, the policy hypothesis does not provide a complete explanation of China Vanke's behavior. With Wanhuilou the firm is responding to something beyond the

standard model of government-subsidized affordable housing. If the government programs do not provide the proper incentives to attract China Vanke's participation, why would the firm want to do affordable housing development at all? This important question perhaps points to an overly narrow description of Wanhuilou as affordable housing.

The high number of employees proposed for the tenant makeup may provide a clue that this project represents not just affordable housing but also worker housing, even if China Vanke does not consider or advertise it as such. Perhaps China Vanke believes it will reap greater benefits from its own project that in part serves its employees than from a government-sponsored project that serves strangers. Even if the financial investment is greater for Wanhuilou, China Vanke could imagine that returns in strengthening employee loyalty might mitigate the cost of the project. Although these speculations produce more questions than answers, they helpfully show that self-interest could still provide a motivating behavioral model, even if not in the spheres of the market or national policy.

Chapter Four

The Local Political Economy Hypothesis: Can a Relationship with the Local Government Compel China Vanke to Build Affordable Housing?

4.1 Introduction: Comparing Political Economy Theory with Observations in China

If the policy hypothesis establishes the connection between the central government and the market, the local political economy hypothesis explores the power dynamics between local governments and firms to understand why national policies are not always implemented as intended. This hypothesis poses that government is not a unitary monolith, and policy implementation hinges on inter-governmental relations and negotiations between local political powers and private firms. When local governments manage real estate development, as this paper will show for China, they may impose on the market their own system of economic valuation that yields a "currency" of power from local growth. Whether a national policy restricting house size or a transparent system pricing land, if a measure interferes with growth, local governments may sacrifice policies and even market principles in order to capture gains at the local level. This system causes inconsistent policy implementation and fuels hidden deals with private developers.

If this hypothesis provides an explanation for Wanhuilou, we would expect that the local Guangzhou government negotiated a deal with China Vanke to build it. Given the local governments' increasing control of state property holdings and housing policy implementation, China Vanke must navigate the local political setting in order to conduct business, making this hypothesis certainly possible. In this scenario, it is no longer self-

interest alone that drives the firm's behavior but also an appreciation of how a firm's interests hinge on the interests of others in important local relationships.

This chapter explores both the origins and manifestations of such networks. Section 4.2 begins with a brief literature review of local political economy theory. Section 4.3 examines the origins of China's local government power—increased decentralization—through literature on state property control and local governments' discretionary authority. It also connects these two analyses to China Vanke's experience, observing increased sales in the Guangzhou land market and inconsistent implementation of the 90/70 Rule. Section 4.4 observes how local governments exercise and perpetuate their power in developer negotiations through exactions and building concessions. It also extends these analyses to three China Vanke projects. Finally, Section 4.5 reviews Wanhuilou in the context of the Guangzhou local political economy, examining whether this framework provides an explanation for China Vanke's motivations.

4.2 Theory: Local Political Economy

In his 1976 paper "The City as a Growth Machine: Toward a Political Economy of Place," Harvey Molotch explores urban settlement as a political economy, making the important and then unexplored link between a city's physical land and the local actors that shape its use. This link provides the mechanism for urban growth, which begins with industrial development, "followed by an expanded labor force, a rising scale of retail and wholesale commerce, more far-flung and increasingly intensive land development, higher population density, and increased financial activity" (Molotch, 1976: 310). But the scarcity of land, the main resource for growth, "means that government becomes the

arena in which land-use interest groups. . .attempt to mold those decisions which will determine land-use outcomes" in order to capture the highest value of property (1976: 312). Molotch establishes local governments' upper hand in these negotiations, emphasizing that local businessmen, and in particular property owners and investors, "*need* local government in their daily money-making routines" (1976: 314).

Even though current literature does not specifically address affordable housing development in China's local political economy, it thoroughly addresses other incentivized or negotiated developer contributions, such as infrastructure improvements. Thus, the following analyses on related government-developer interactions will serve to illuminate housing.

4.3 The Origins of Local Government Power: Decentralization of the Real Estate Market

4.3.1 State Control of Property: The Guangzhou Land Market

Although a World Bank paper argues that "most government interventions into urban land management are far too centralized," evidence suggests that land administration and housing development are very decentralized in China (Dowall & Clark, 1996: ii). The control of state property has shifted to municipalities and urban districts, giving local land bureaus the responsibility—and power—to regulate their land markets (Wu, 1997: 641). Moreover, the decentralization of property means that local governments collect land premiums, which they share with the central government. This system has obvious implications for the local political economy of land-use decisions, as You-tien Hsing argues: "The market of commodified yet not privatized urban land is a major venue of local states' intervention in the market as well as the answer to local states' need for rapid local accumulation" (2006: 168). In other words, to reference Molotch's terminology, the decentralization of land fuels the local growth machine.

Yet even as the control of state-owned property has devolved from the central to local level, local governments have consolidated the system of land-use transfers, tightening their reins on land to their own advantage. China's post-reform land markets first relied on private negotiations, but the ensuing "development fever" and fragmented market created exceedingly high vacancy rates and perched China on the precipice of a real estate crisis in 1994 (Hsing, 2006: 175). Since then the national government has worked to better control the market, most notably with its 2001 land bank policy, which arms cities as "super landlords" with the power to centralize land holdings and coordinate the market through open auctions. Through these open land auctions city governments can control the sales price of land and reap much larger benefits (Hsing, 2006: 175). Thus, with the decentralization of state property and the consolidation of property at the local level, China's land markets have undergone two seemingly contradictory changes that together benefit and empower local governments.

In recent years, however, local governments have had to balance their power to collect high land prices with their responsibility to stabilize house prices, a directive included in the 2005 Eight Measures. For example, in 2007 the Guangzhou government announced a revision to the city's land plan, increasing land sales to 5 million square meters per year for the next five years in an effort to ease competition among developers and lower prices. This effort, however, has not yet produced the desired effect, as land parcels continue to sell at very high prices while land bank officials watch with a

combination of astonishment and exasperation. At a Guangzhou land auction on July 19, the auctioneer paused during the middle of a heated bidding war between China Vanke and another firm to joke that the government would be auctioning more land the following month; at that moment the total price of land was \$52 million, still \$6 million short of its eventual selling price. The fact that land prices continue to climb suggests that the local government's initiative has not successfully matched supply with demand. The effort serves as a palliative attempt to regulate the market while still fueling local growth with high land prices.

Despite the fact that the measure has not decreased prices, the increased supply of land has benefited China Vanke's Guangzhou office, which at first struggled to build a competitively sized land bank. In 2007, though, the office significantly boosted its land holdings by buying eight parcels in that year alone. Moreover, China Vanke remains content to pay high prices for land because it knows that its houses will capture high sales prices.

4.3.2 Local Implementation of National Policy: The 90/70 Rule

Local governments' control of state property is commensurate with their responsibility to implement national land and housing policies, such as the directive in the 2005 Eight Measures that tasks local governments with stabilizing housing prices. But because of their control of physical capital, Molotch would argue, local governments also benefit from tremendous political capital, and indeed, national policies may or may not be enforced at localities' discretion. Jieming Zhu confirms this phenomenon in China: "Although urban growth has been significantly facilitated by the local developmental

state in terms of quantity, the arena of urban construction has become to a large extent dominated by the logic of the commons or quasi-commons, in a context where state controls are not effective (or absent)" (2004b: 428).

The enforcement of state controls, of course, hinges on what a local government stands to gain or lose in implementing a policy. In the context of the real estate market, local governments may choose not to enforce policies that aim to subdue the soaring real estate market and stabilize house prices, as these measures may interfere with economic growth objectives. In 2005, for example, the Guangzhou government began promoting Luogang District as the Guangzhou Economic and Technological Development District, cultivating this area of 390 square kilometers as a center for modern manufacturing, hightech industry, and luxury hotels and retail. In order to encourage growth in high-end real estate—and in an archetypal example of the urban growth machine—the local government chose not to enforce the 90/70 Rule in this district. This policy directly benefited Vanke Cheng, China Vanke's new housing development where the average sales price per square meter is \$2,780, one of the firm's highest. China Vanke, whose wealthy customers characteristically prefer bigger units, enjoys a boost from this manifestation of the local growth machine.

Decentralization of China's real estate market has thus significantly empowered local governments as they manage both local land markets and local implementation of policy—two devices which, furthermore, allow them to control local growth. Decentralization has thus "led to the re-emergence of localism in Chinese national politics, i.e. competition instead of cooperation among localities" (Zhu, 1999: 538).

4.4 The Manifestations of Local Government Power: Negotiations with Developers4.4.1 Developer Exactions: Center City Relocation Project

While decentralization, the origin of local power, describes the interface between the state and local governments, the manifestations of that power emerge in negotiations between local governments and firms. These dynamics play out with particular significance in land use decisions, which reveal that the goal of maximizing land premiums does not necessarily produce the effect of maximizing land use according to efficient market principles. Because the central and local governments share the premiums extracted from land sales, to maximize their gain local governments may ask developers to contribute to local facilities to decrease the cash payment and make the land premium less transparent (Wu, 1997: 656). From these under-priced transactions developers thus capture the land rent that would otherwise go to central and local government coffers, and in return they have a responsibility to help the local government with high-risk, low-profit projects, such as high-tech industrial parks. Although developers and local governments both benefit from this exaction system, it typically produces "a sub-optimal utilization of scarce land resources" (Zhu, 2004a: 1250).

While the increase in open land auctions and the resulting rise in land prices have diminished the number and necessity of such negotiations, trade-offs still occur, as they often provide the most feasible strategy to accomplish local government projects. In one example of developer exactions, China Vanke recently bought a package of three land parcels requiring substantial contributions. Located in Haizhu and Liwan, districts in the center of Guangzhou, these sites are in highly desirable locations that rarely become available for redevelopment because sitting tenants have land-use rights and are often

reluctant to leave. So when center city land becomes available, developers jump at the opportunity to purchase and redevelop it, typically in the form of densely built high-end housing. In China Vanke's newly acquired parcels, current GFAs are 9,200, 14,000, and 3,270 square meters, but the Guangzhou land bureau has determined much higher GFAs for these parcels' redevelopment: 53,500, 79,950, and 5,730 square meters.

While China Vanke extracts direct land rents from developing these properties at higher densities, the local government collects an indirect premium by exacting additional contributions from the firm. For one, China Vanke must rehabilitate a blighted land parcel and turn it over to the government; the site totals 6,100 square meters in area, and China Vanke must build parking facilities and green space. Second, the three parcels it purchased for redevelopment require an investment beyond the standard hard and soft construction costs, as the firm must pay to relocate current residents. The three sites currently have mixes of residential, retail, and commercial uses, but older, crowded housing units occupy most of the space—about 20,000 total square meters of apartments that average 20-30 square meters in size. Residents know that their housing occupies very valuable land, and Mr. X predicted that they will make high demands in relocation negotiations. He said, "Relocating will be very difficult. There is only one way to this job well: give more money."

Although relocation costs will be high, China Vanke still expects to turn a healthy profit from these redevelopment projects; beyond China Vanke's investment, however, relocation expenses may impose additional costs on the market itself by raising prices to irrational levels. Fraught with challenge and controversy, relocation cannot be comprehensively evaluated within the scope of this paper, but the economic impact of

relocation deserves mention for its effect on housing prices. Dowall argues that "new commodity housing and commercial space is priced at two to four times its economic cost because of the replacement housing requirement. This cost differential is inefficient and creates severe price distortions in the housing market" (1993: 8).

4.4.2 Building Concessions: Density and Height Allowances

Given the established system of developer exactions, it is not surprising that "localities are often willing to compromise on land use control," (Wu, 1997: 656). Just as under-priced land transactions generate rents for developers, building concessions can also generate rents from altered land use plans and density regulations, which may or may not produce more efficient land use outcomes.

China Vanke's Guangzhou office has worked hard to develop a good relationship with the local government over time, as Mr. X suggested to me in careful language: "We obey the law and regulations, so a relationship between Vanke and the government is a pleasant thing. . .the government feels it is safe. . .and under laws and regulations the government will help us as a friend." The Guangzhou office has received notable building concessions on two projects. The land-use plan for its Jinse Garden development originally required 8,000 square meters of commercial space, but China Vanke convinced the government that the site was ill suited for so much commercial space, and the government reduced the area to 1,000 square meters. Similarly, height restrictions initially capped at 80 meters the towers in Jinshazhou—a project located directly on the Pearl River, where water views command high prices—but the Guangzhou office renegotiated the height limit to 100 meters.

Although developers capture the most direct gains from building concessions, these two examples show that the local government is not sacrificing its own public budget or growth goals. In fact, by permitting China Vanke to build more intensively in Jinshazhou, it enables more urban growth, and by adjusting the land-use plan for Jinse Garden to facilitate higher revenues, it will collect more taxes for its coffers. Moreover, concessions perpetuate local governments' power, repositioning them to exact rewards in the future.

4.5 Evaluating Wanhuilou: Local Political Economy in Guangzhou

It is important to evaluate Wanhuilou in the local political economy context because journalistic accounts and academic literature consistently neglect explanations of China's affordable housing development in relation to local political economy theory. Journalists and scholars already overlook how local governments compel private developers to participate in established affordable housing programs: for example, in the *Jingji Shiyong Fang* program, private developers bid for projects through tender, and winning firms "need to finance the low-profit housing projects by themselves. Local authorities determine the building standards and housing prices" (Zhang, 2002: 15). This account of implementation, however, ends here, with no explanation of why private firms would compete for less profitable projects. When this link between local government and firms is already unclear for established programs, it is all the more crucial to consider the link between Guangzhou's local government and China Vanke in a developer-initiated affordable housing project.

Trends in Guangzhou's land market and local policy implementation establish the decentralized environment conducive to developer exactions, leading me to pursue this theory as an explanation for China Vanke's motivations. Because colleagues had previously expressed doubts and criticisms about Wanhuilou, namely in regard to its expense, I felt confident that through our trusted rapport I could inquire directly about the possibility of a developer exaction and receive an honest response. I talked to multiple people, however, and no one confirmed my suspicion, so I next tried to address the issue indirectly. I asked what government approvals the project required, and I learned that like all other housing developments, Wanhuilou underwent the same approval procedure to guarantee its compliance with zoning codes, building codes, and environmental standards. I inquired whether the firm had to hold any special meetings with government officials, but it did not. My most senior, knowledgeable, and forthcoming subject, Mr. X, also gave no hints that the local government solicited Wanhuilou in an explicit negotiation, only noting that he expects a favorable reception from the local government, and "since China Vanke is the first to do a project like this, it should be appreciated."

Given the inherently off-the-books nature of local political economy negotiations, I cannot conclude with certainty that local negotiations did not play a role in China Vanke's decision to build Wanhuilou. Yet one additional piece of evidence strengthens my findings: because the project is located on a site already leased and serviced by China Vanke, the local government could not reasonably expect to get any exactions out of a new deal.

4.6 Conclusion

To analyze whether the local government's power can shape the real estate industry to its advantage, this chapter explored both the origins and manifestations of this power. Section 4.2 began with a brief literature review of local political economy theory. Section 4.3 examined the origins of China's local government power through literature on state property control and local governments' discretionary authority. It also connected these two analyses to China Vanke's experience, observing increased sales in the Guangzhou land market and inconsistent implementation of the 90/70 Rule. Section 4.4 observed how local governments exercise and perpetuate their power in developer negotiations through exactions and building concessions. It also extended these analyses to three China Vanke projects. Finally, Section 4.5 reviewed Wanhuilou in the context of the Guangzhou local political economy, examining whether this framework provides an explanation for the project.

With no conclusive evidence of a developer exaction, the local political economy hypothesis does not directly explain Wanhuilou. Still, this examination of Wanhuilou has an interesting implication for the local political economy argument, as it demonstrates the agency of a firm—not just the public sector—to initiate a social project and, presumably, capture potential benefits.

Chapter Five

The Corporate Social Responsibility Hypothesis: Can Social Values Inspire China Vanke to Pursue Affordable Housing Development?

5.1 Introduction: Comparing Corporate Social Responsibility Theory with China

Vanke's Practices

This chapter draws from corporate social responsibility (CSR) literature, which is not typically invoked in housing dialogues; therefore, this section marks an innovative connection of CSR literature to urban development literature. Deriving from a more recent theory and practice than the previous three hypotheses, the corporate social responsibility hypothesis suggests that social values can motivate a private enterprise to promote certain practices or projects that ostensibly serve a greater good than its bottom line—though this too may benefit in the process. CSR activities may originate from different justifications: a company's own moral obligations, external standards that dictate a firm's license-to-operate, reputation concerns, sustainability efforts, and competitive advantage goals. To test whether this hypothesis provides a reasonable explanation for Wanhuilou, we must examine the different approaches and justifications of CSR to evaluate which, if any, motivate this affordable housing project.

This chapter examines these aspects of CSR, as well as the evolution of CSR theory and practice, to understand CSR's role in the contexts of China, China Vanke, and Wanhuilou. Section 5.2 begins by charting the evolution of CSR theory and practice, revealing significant changes in the characteristics and importance of CSR over time. Section 5.3 briefly observes China's current CSR activity—previously latent but now regarded as the "new frontier." Section 5.4 then turns to China Vanke, examining its

demonstrations of socially responsible thought and activities through public reports, internal conversations, and ongoing work to understand if and how CSR motivates Wanhuilou.

5.2 Theory and History: Corporate Social Responsibility

The formal conception of corporate social responsibility first emerged in 1953, when economist Howard Bowen published *Social Responsibilities of the Businessman*, in which he argued that businesses are obligated to "pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society" (1953: 6). Bowen's emphasis on societal objectives and values established two basic premises of early CSR. First, because business "exists at the pleasure of society" it has a social contract to conform to the objectives of society; second, because businesses "reflect and reinforce values," they have a moral agency to meet societal values (Wartick & Cochran, 1985: 759).

As this conception of CSR took shape in both academic and corporate circles, so did its criticisms. Milton Friedman vigorously and famously argued against CSR in the *New York Times* article "The Social Responsibility of Business is to Increase its Profits." A corporate executive, he insisted, is an agent of the stakeholders who own a firm, and if his social responsibility activities reduce a firm's financial returns, he violates the principle-agent framework by irresponsibly spending the stakeholders' money. Friedman observed ripple effects beyond the stakeholders' concerns, arguing that higher prices or lower wages—potential by-products of CSR measures—recklessly spend customers' and employees' money as well. Perhaps most significantly, Friedman struggled with the idea

that social spending forces businessmen to become civil servants while still employed by private enterprise, and this confounded role suggests "acceptance of the socialist view that political mechanisms, not market mechanisms, are the appropriate way to determine the allocation of scarce resources to alternative uses" (1970).

Despite these significant criticisms, which continue to appear in CSR literature today, CSR has developed into a robust and multifaceted practice. Defining and evaluating CSR have become similarly complex processes, so this section attempts to clarify and connect different approaches, justifications, and activities of CSR. In a *Harvard Business Review* article that takes stock of CSR's recent history and predicts its future trends, Michael Porter and Mark Kramer divide CSR into two approaches: responsive CSR and strategic CSR. Responsive CSR has characterized practices in recent years, and it reflects four main justifications. These justifications, in turn, have produced certain CSR activities that have become expected and standard over time. Strategic CSR, in contrast, represents a more innovative path that seems to characterize the future of CSR. The following diagram relates these different concepts:

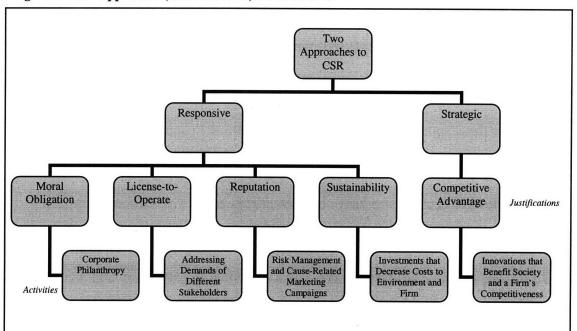


Figure 8: CSR Approaches, Justifications, and Activities

Responsive CSR's first justification is moral obligation—the imperative that "companies have a duty to be good citizens" (Porter & Kramer, 2006: 81). Traditional corporate philanthropy is the main activity inspired by moral obligation. Incidentally, Friedman would not contest this practice to the extent that it allows stockholders to contribute more to charities through a corporation rather than through personal donation, as the amount otherwise would have been paid as corporate taxes. Donating the standard one percent of pre-tax profits to charities, however, has grown mundane, as executives, employees, and customers increasingly express that "arm's-length philanthropy" is not enough ("Just Good Business", 2008).

This sentiment, as well as attacks on firms' practices, has necessitated additional CSR justifications. The second justification is license-to-operate, which particularly pertains to highly regulated or extractive industries. By appealing to the issues important

⁽Porter & Kramer, 2006)

to stakeholders, this justification "fosters constructive dialogue with regulators, local citizenry, and activists" (Porter & Kramer, 2006: 82). This justification, arguably more pragmatic than moral obligation, is especially important for operations that require government consent. License-to-operate activities require balancing the demands of different pressure groups, often in short-term "public relations palliatives" (Porter & Kramer, 2006: 82).

Like license-to-operate, the third justification, reputation, also appeals to external audiences. Stigmatized industries may pursue social responsibility measures to manage risk against future disasters. Risk management activities became especially imperative in the 1980s with environmental disasters like the Exxon Valdez oil spill and continued to gain importance in the 1990s, when Nike and the Gap were condemned for labor practices and pharmaceutical companies were attacked for not providing affordable HIV/AIDS drugs in developing countries ("Just Good Business", 2008). For consumer-oriented companies, the reputation justification inspires a different set of activities, typically translating into "high-profile cause-related marketing campaigns" (Porter & Kramer, 2006: 82).

Sustainability is the fourth justification of responsive CSR. Appealing to "enlightened self-interest," the sustainability justification encourages companies to "operate in ways that secure long-term economic performance by avoiding short-term behavior that is socially detrimental or environmentally wasteful" (Porter & Kramer, 2006: 82). Sustainability activities include, for example, technology investments that simultaneously conserve environmental resources and save money. Dupont has saved \$2 billion since 1990 through energy reduction measures (Porter & Kramer, 2006: 82).

Of these four justifications of responsive CSR, sustainability comes closest to satisfying the strategic CSR approach with its attempt to decrease costs for both business and society, but it still misses the crucial component of strategic CSR—creating mutual *benefits* between business and society. Although responsive CSR activities bring their own value, they are inherently limited because they "focus on the tension between business and society rather than on their interdependence" (Porter & Kramer, 2006: 83). Strategic CSR, on the other hand, means "doing things differently from competitors in a way that lowers costs or better serves a particular set of customer needs" (Porter & Kramer, 2006: 88), and although Porter and Kramer do not explicitly assign a justification to strategic CSR, the notion of competitive advantage provides a logical stand-in. Porter and Kramer offer several examples of companies successfully pursuing strategic CSR activities, including Crédit Agricole, France's largest bank, which has found a competitive niche in offering specialized financial products related to the environment, such as financing for energy-saving home improvements (2006: 89).

In summary, CSR has significantly evolved since Bowen first introduced the idea that business should meet the objectives and values of society with socially responsible activities. From the early practice of corporate philanthropy, CSR has developed into a complex system to manage stakeholder demands, safeguard reputations, and promote sustainability. Representing the responsive CSR approach, these justifications are valuable but inherently limited. Firms are increasingly turning to the strategic CSR approach—by finding a competitive advantage in meeting needs important to society, companies can maximize benefits to both business and society.

5.3: "The New Frontier": Corporate Social Responsibility in China

In a special report on CSR, *The Economist* called China "the new frontier for the CSR industry," even though the country's recent history shows limited CSR efforts ("Going Global", 2008). China's relatively underdeveloped CSR practice is largely attributable to its similarly underdeveloped civil society—with no NGO presence in China, businesses have not had to face the demands of stakeholder groups and activists that they would in other countries. Thus, China's growing interest in CSR is all the more significant given the country's context. *The Economist* reports that CSR activity currently originates from three sources: the government is emphasizing environmental responsibility, foreign investors and multinational firms are concerned about ethical standards across their value chains, and Chinese companies are realizing that CSR represents an important component of global brand management.

In October of 2006, China's CSR activity took more formal shape with the founding of the Chinese Federation for Corporate Social Responsibility (CFCSR). CFCSR currently includes 13 foreign-owned and Chinese firms, such as IBM, Nokia, and China Vanke. CFCSR "aims to support the development in underprivileged areas of China" by supporting government agencies and encouraging cooperation among corporations to build a "harmonious society" ("CFCSR Established in Beijing", 2006).

5.4 China Vanke's Practices: Corporate Social Responsibility at the Firm Level

The previous section showed how different justifications motivate CSR, as well as how different people, demands, and time periods contribute to those justifications. Before we can assess whether any of these justifications motivate Wanhuilou, we must first examine China Vanke's understanding of CSR. This section will thus begin by jointly analyzing the firm's various demonstrations of socially responsible thought and activities, as well as the people and forces driving them. Analyzing public reports, internal conversations, and ongoing activities, this section will build a picture of China Vanke's CSR to assess whether it provides an explanation for Wanhuilou.

5.4.1 Establishing Corporate Social Responsibility: Leading the Firm to Lead the Industry

The Economist observes that companies with robust, successful CSR practices "typically have a committed CEO who champions the policy," and indeed, China Vanke's most definitive articulations of corporate social responsibility come from Chairman Wang Shi ("Do it Right", 2008). In his 2005 letter to shareholders, Wang Shi vowed to "promote social responsibilities, with an aim to. . .achieve harmonious coexistence in society" (2005: 10). Wang Shi has imparted similar messages to his employees in Guangzhou, and his powerful influence is evident in their reactions to both his rhetoric and actions: they consistently praised the chairman's passionate idealism and trusted his command with the Wanhuilou project, which they note would not have happened without his leadership.

Wang Shi aims to extend his leadership of the firm's social responsibility practices to the entire real estate industry, promoting both industry regulations and affordable housing initiatives. To the first end he writes: "We need to exert a wider influence over the industry to facilitate the industry's advancement to regulated, fair, efficient and sustainable development" (2005: 9). To the second end he commits China

Vanke to advance "rational thinking" on low-income housing solutions, as well as to deliver Wanhuilou, a "prototype" of low-income housing that he aims to "promote to the rest of society" (2005: 10).

Wang Shi's construction of CSR philosophy and activities seems to originate from a combination of responsive CSR justifications. The first, moral obligation, captures Wang Shi's emphasis on creating a harmonious society. At the same time, a harmonious society delivers contented stakeholders, introducing the license-to-operate justification that also speaks to China Vanke's leadership in industry regulation. Finally, the reputation justification also motivates China Vanke, both in terms of distinguishing the firm's brand and in terms of addressing generally negative conceptions of real estate developers. Wang Shi reported that in 2005 China Vanke received the award "Most Respected Enterprise in the PRC" for the third year in a row, as well as the award "China's Best Corporate Citizen" for the second year. Despite the firm's accolades, Wang Shi suggests that it must still combat negative images associated with private developers and thus aims to establish a "positive social image" for the entire industry (2005: 10).

Although *The Economist* warns that "being a high-profile early enthusiast carries the risk of overpromising," Wang Shi seems to embrace and emphasize China Vanke's role as trailblazer ("Do it Right", 2008). In fact, his remarks suggest that industry leadership and advocacy represent CSR activities in themselves. These activities also expand the established CSR framework described in the previous section, and as such, they perhaps deserve a more specific justification that better captures their emphasis on

being the first or the best—for this additional justification, I propose the name "pioneering leadership."

5.4.2 Inculcating Corporate Social Responsibility: Achieving Employee Buy-In

Although *The Economist* argues that CSR now represents an important component of attracting employees who "want to be actively involved in doing good works," in China CSR is still too new to be a bargaining tool; if anything, a leader like Wang Shi must convince his employees of CSR's importance ("Do it Right", 2008). A few colleagues discreetly suggested skepticism about Wanhuilou because of the significant profit loss that the Guangzhou office will bear alone. No one, however, challenged the importance of the project, both as a contribution to society and as a model that will distinguish the company.

One colleague in particular spoke knowledgeably and earnestly about both measures of Wanhuilou's importance. A member of the design team with a background in economics, he contextualized his thoughts on Wanhuilou with specific and informed references to causes and consequences of China's affordable housing shortage, which he believes both the government and society writ large have an obligation to address. He said: "Our company's main responsibility is to survive and develop, while society's responsibility is to help people survive and develop. For a company to implement society's responsibility, it must first achieve good profits before it can give back in this way." China Vanke, he continued, has achieved a level of financial success that obligates the firm to contribute to society, and Wanhuilou accordingly represents the firm's social responsibility.

He explicitly identified a second significance of the project: leading the industry in social responsibility brings rewards. This colleague observed: "The investment in Wanhuilou will lead to a great future and will give our company a very prestigious image, bring us many more advantages beyond the financial investment." In addition to boosting China Vanke's position overall, he also pointed out that "Wanhuilou is helpful for the Guangzhou office's position in the whole company."

As with China Vanke's chairman, the moral obligation justification clearly influence employees' understanding of CSR and Wanhuilou in specific, and the reputation justification also significantly resonates with this colleague. With his interest in the Guangzhou office's advantageous position, he also points to a benefit that is lost on the Chairman, who, by contrast, thinks about the firm on a more global level. This colleague observes an important aspect of CSR—a certain share of rewards is captured at the local level of CSR beneficiaries. Gerald Keim corroborates this idea, arguing that smaller companies are best poised to "capture direct benefits from philanthropic gifts, especially if the recipients are localized. . .[this] improves the 'goodwill' of the firm visà-vis local citizens and their government" (1978: 37).

5.4.3. Utilizing Corporate Social Responsibility: Addressing Public Opinion

From China Vanke's perspective, the reputation justification can both mitigate negative conceptions of the industry and build positive images of the firm. While we have considered the import of reputation to both a CEO and an employee, we have not directly considered the significance of reputation to the public and how they conceptualize and shape it. Remarks like the following, from the executive director of Cheung Kong, Hong Kong's largest developer, establish the aggressive and even predatory tenor to China's real estate industry: "We want to make them believe that prices are going to go even higher in the future and you can only do that if you set a really high price" (Wong, 2007). The director explained that the firm's strategy in China is to sell apartments at prices as high as possible, particularly in the second- and third-tier cities where prices have more room to grow. This strategy, expressed so bluntly, frustrates the vast majority of the population who are not concerned with high appreciation rates but with basic housing provision.

With its consistent delivery of high-quality housing and emphasis on transparency, China Vanke has maintained a strong brand image despite negative characterizations of the entire industry. Even so, as Mr. X pointed out, China Vanke's brand is explicitly associated with the wealthy classes, and though these income groups remain the firm's targets, the firm seems sensitive to the possibility of alienating the public. Mr. X related a comment from a government official, who expressed envy of Wanhuilou's future residents, saying, "You know, we also cannot afford your housing." Thus, even as China Vanke continues to build luxury developments and maintain a correspondingly high-end reputation, it is also trying to diversify its image, and, even if with just one affordable housing development, its products as well. Mr. X expressed that Wanhuilou provides a valuable counterpoint to the rest of the firm's portfolio.

To summarize, this section has explored the various people and factors that influence China Vanke's CSR thought and activity, which build a strong case for CSR's motivation of Wanhuilou. Although just one activity, Wanhuilou complements China

Vanke's larger leadership goals for industry regulation and social harmony and thus serves multiple CSR justifications: moral obligation, license-to-operate, reputation, and pioneering leadership, a new addition to the CSR framework.

The recurring importance of the reputation justification proves that it is not just a CEO's power or employee buy-in that motivates and embeds a firm's CSR practices; rather, these practices largely reflect a response to the public, who have their own power to conceptualize and shape a firm's reputation. With Wanhuilou China Vanke appeals to low- and middle-income people, aiming to diversify its image. This picture of China Vanke's CSR drivers and practices, while multi-faceted, nonetheless suggests the firm's singular focus on responsive CSR.

5.5 Conclusion

This chapter examined the different approaches and justifications of CSR to understand its role in the contexts of China, China Vanke, and Wanhuilou. Section 5.2 charted the evolution of CSR theory and practice, revealing significant developments in the justifications of CSR over time, as well as the shifting emphasis from responsive to strategic CSR approaches. Section 5.3 briefly observed China's current CSR activity previously latent but now regarded as the "new frontier." Section 5.4 then turned to China Vanke, examining its demonstrations of socially responsible thought and activities through public reports, internal conversations, and ongoing activities to evaluate if and how CSR motivates Wanhuilou. This final section established a strong case for CSR's motivation of Wanhuilou, which serves multiple CSR justifications but reflects a singularly responsive CSR approach.

Chapter Six

The Shared Interest Model: Creating Value at the Bottom of the Housing Pyramid

6.1 Introduction: Marking the Shift from Responsive to Strategic Corporate Social

Responsibility

While the previous chapter established China Vanke's responsive CSR behavior that seems to at least partly motivate Wanhuilou, this chapter imagines the possible benefits of and the necessary conditions for a strategic CSR approach to affordable housing. Thus, instead of offering a hypothetical behavioral model to explain China Vanke's project, this chapter provides an instructive behavioral model to rethink Wanhuilou.

In a recent *Harvard Business Review* article Jeb Brugmann, an emerging markets expert, and C.K. Prahalad, a professor at the University of Michigan's Ross School of Business, write about business' growing attention to customers at the bottom of the pyramid. This business activity corresponds to the similarly increasing focus on strategic CSR, as Brugmann and Prahalad observe: "CSR started as a way for companies to gather intelligence about NGOs and manage their reputations, and it has wound up providing them with the tools they need to pursue business opportunities in untapped markets" (2007: 86).

This chapter therefore explores the market and policy implications of targeting China's untapped housing market. Section 6.2 considers the firm initiatives necessary for meeting demand at the bottom of the pyramid, briefly assessing Wanhuilou's missed opportunity before turning to the comparative case of Urbi, a Mexican homebuilding

company that has grown a strong business in profitably supplying low-income housing. Section 6.3 examines the initiatives outside a firm that enable a bottom of the pyramid housing strategy, tracing Urbi's success to Mexico's strong mortgage market, which the government, in cooperation with financial institutions, extensively expanded to meet the country's affordable housing shortage. This section also analyzes China's current mortgage market: unlike Mexico's diversified mortgage market, which successfully targets the bottom of the pyramid with home loans that are affordable for buyers and profitable for lenders, China's mortgage market remains relatively homogeneous and only meets the needs of middle- and high-income earners.

6.2 Firm Initiatives: Meeting Demand at the Bottom of the Pyramid

6.2.1 Wanhuilou's Missed Opportunity

The government official's comment about China Vanke's unaffordable prices highlights the fact that China faces a vast unmet demand for affordable, good-quality housing, and this shortage reaches far beyond the very poor households to urban professionals and government bureaucrats with stable salaries. This unmet market demand represents a potential opportunity for real estate developers.

Although Wanhuilou serves customers at the bottom of the pyramid, its selfsubsidization inhibits the shared economic value that would make it a strategic CSR activity. With Wanhuilou, China Vanke undoubtedly takes an important initiative: it makes a commitment to understand China's affordable housing shortage, it serves a tiny slice of that huge demand, and thus it helpfully exposes the need for good-quality, affordable housing—but it does not provide a replicable business model. Although Wanhuilou may generate tangential market benefits through positive public relations,

these are difficult, if not impossible, to quantify. More significantly, the direct market benefits of profitably supplying affordable housing elude China Vanke.

6.2.2 Urbi's Demonstrated Success

To be sure, profitable affordable housing projects require adjustments and additions to a developer's standard business model, and because these additions often involve government initiatives and subsidies, the financial structures and successes of affordable housing developments vary widely among locations. That said, it is valuable to examine a successful model of privately supplied affordable housing to understand what conditions make it work and whether they might apply to China Vanke.

Urbi Desarrollos Urbanos, S.A. de C.V., or Urbi for short, is a Mexico-based real estate development company that has developed a profitable business in low-income housing. It provides an appropriate comparison because, like China Vanke, it is a large firm with a wide geographic presence—as the country's third largest developer, Urbi has produced over 200,000 homes in its 27 years of operation, with its business concentrated in northern states, the Mexico City area, Guadalajara, and Monterrey, and quickly growing in other parts of the country. At the end of 2007 Urbi reported \$1.19 billion in sales revenue, \$383 million in gross profits, and \$1.24 billion in total equity ("Urbi Desarrollos Urbanos SA de CV", 2008).

Urbi also offers a comparable model with its product diversity, as it increasingly supplies middle- and high-income homes in addition to its low-income housing. Still, the majority of its business is based on affordable housing: in 2005 affordable homes targeting low-income and first-time buyers represented 69 percent of Urbi's homes sold

and 50 percent of its revenues. Most of these homes sell for less than \$40,000 and measure less than 60 square meters. Almost all of Urbi's low-income housing is pre-sold with pre-approved financing, and the mortgages are disbursed after home completion and delivery, a process that takes two to four months ("Fitch Rates Urbi's Proposed US\$150MM Sr Notes Offering 'BB'", 2006). With its innovations in both production and financing, Urbi has made affordable housing a profitable industry.

6.3 Outside Initiatives: Expanding the Mortgage Market

6.3.1 Lessons from Mexico's Mortgage Market

Mexican institutional and financial contexts, though, are equally important for understanding Urbi's success, and as a developing country, Mexico provides a more appropriate comparison to China than the United States, for example. In the early 1990s Mexico faced a housing production shortage; this shortage also highlighted an urgent need for more affordable housing, which was intensified by a rapid pace of urbanization and no formal sector housing finance for a large part of the population (Zearley, 1993: 24). Government initiatives to aggressively expand mortgage lending have enabled Urbi, as well as other homebuilders like Geo and Homex, to pursue Mexico's low-income market. Working with financial institutions such as Infonavit, Fovissste, Sociedad, and Hipotecaria Federal, the Mexican government offers home credits to individuals earning between \$270 and \$450 per month and has aimed to finance 750,000 units per year ("Mexican Homebuilders Set for Growth Under Calderon", 2006).

In particular, housing funds Infonavit and Fovissste provide relevant models for China—they require workers and employers to contribute a percentage of salary to the

funds, but unlike China's Housing Provident Fund, Infonavit and Fovissste serve both private and public sector workers respectively. Moreover, these funds are more equitable and efficient: reforms in 1992 "instituted new rules to ensure fairness in the assignment of mortgages, to cut subsidies, and to make Infonavit [and Fovissste] financially selfsufficient" (Zearley, 1993: 243). Whereas China's HPFs serve only to direct and collect public sector workers' housing funds, passing individuals off to banks to obtain home financing, Infonavit and Fovissste actually originate loans.

Moreover, these loans effectively address the financing needs of the workers who contribute to the funds. In 1987 the government authorized financial lenders to use the innovative dual-index mortgage (DIM), which "attempts to create a loan that is both affordable to the borrower and profitable to the lender" by charging market interest rates while pegging borrowers' payments to adjustments in the minimum wage (Lea, 2000: 36-7). More recently, many DIMs have been restructured as price-level-indexed mortgages (PARMs); by tying payments to inflation, they provide lenders with better cash flow forecasts but still "insulate borrowers from variable real rates" (Lea, 2000: 37).

Altogether, Mexico's home mortgage initiatives have produced a robust market: at the end of 2007 total home mortgage loans amounted to \$25.3 billion and represented 14 percent of its GDP at year end. \$3.6 billion, or 14 percent of the total mortgage loans, were low-income housing loans—that the central bank records this distinction is itself an important indicator of Mexico's effective outreach to the bottom of the pyramid (Banco de Mexico, 2007).

6.3.2 Analysis of China's Mortgage Market

In China mortgage lending to individuals formally emerged in 1996, with a Guaranty Law permitting the use of real estate as collateral, followed by 1998 regulations on mortgage lending from the People's Bank of China (*Asia Focus*, 2005: 1). The residential mortgage market has grown considerably in years since, and as a percentage of GDP, China's home mortgage loans amount to a similar share as Mexico's: by the end of 2007 the total value of home mortgage loans had reached \$423 billion and represented 12 percent of China's GDP (\$3.48 trillion) (Monetary Policy Analysis Group, 2008: 44).

Yet unlike Mexico's mortgage industry, China's industry has not effectively reached down market. The supply of financial instruments remains fairly homogeneous, reflecting the spending capacities of high-income groups. The 20 percent down payment minimum for first-time buyers, mandated by the central bank, is prohibitive to the average urban worker (Niu & Zhou, 2007). Thus, as Kenneth Rosen and Madelyn Ross report in an article on homeownership in China, "the relatively few Chinese who have taken out these mortgages are largely private business or employees of foreign-funded enterprises that offered special incentives to enable their workers to buy a home" (2000: 85). Moreover, Chinese households have been slow to change a customary aversion to debt (Deng, Zheng, & Ling, 2005: 120).

Arguing that mortgage lending may provide a key means to bridging the housing affordability gap, Rosen and Ross offer a number of recommendations to expand China's mortgage market to lower-income consumers. These suggestions include long-term mortgages, graduated payment systems that match consumer income to housing expenses over time, and the development of mortgage-backed securities (2000: 86-7). In addition,

it may be valuable for the Chinese government to consider Mexico's Infonavit and Fovissste as instructive models, since China already has a similar fund in place. By the same token, the government should also carefully observe mortgage market failures, as the U.S.' current housing crisis reveals that the shared value of expanding homeownership and increasing lenders' earnings does not justify bad underwriting principles. China's government should expand home financing to lower-income households but must not expose individual borrowers and financial institutions to irresponsible levels of risk. These recommendations reveal that a strategic affordable housing strategy requires not only firm innovation but also structural reform of housing policy.

6.4 Conclusion

By imagining the possible benefits of and the necessary conditions for a strategic CSR approach to affordable housing, this chapter provided an instructive behavioral model to rethink Wanhuilou. This chapter explored initiatives both internal and external to a firm that enable profitable affordable housing development, and it demonstrated that China's government and financial sector do not yet provide the necessary financing tools to make affordable housing development a profitable enterprise.

Section 6.2 considered the firm initiatives necessary for meeting demand at the bottom of the pyramid, pointing out China Vanke's missed opportunity—although Wanhuilou successfully targets unmet demand and differentiates China Vanke accordingly, its self-subsidization means that it is not a replicable business model for actually satisfying China's enormous demand for affordable housing. This section also

showed a valuable contrast with Urbi, a Mexican homebuilding company that has grown a strong business in profitably supplying low-income housing. Section 6.3 examined the initiatives outside a firm that enable bottom of the pyramid housing strategy, tracing Urbi's success to Mexico's strong mortgage market. This section also analyzed China's current mortgage market: unlike Mexico's diversified mortgage market, China's remains relatively homogeneous and only meets the needs of middle- and high-income earners.

Chapter Seven

Conclusions

7.1 Summary and Discussion of Findings

This thesis examined the motivations behind Wanhuilou, an affordable housing development initiated, constructed, and subsidized entirely by China Vanke. This case presents a pioneering firm and a radical project, as China Vanke is the first private real estate developer to build affordable housing without a land subsidy from a governmentsponsored program. An innovative design, high standards for quality, and a range of amenities further distinguish Wanhuilou from China's other low-income housing, which, whether public or private, is typically bare-boned and in disrepair. Moreover, China Vanke initiated this project in Guangzhou, one of the country's most expensive land and housing markets.

Given Wanhuilou's extremely anomalous nature, this thesis aimed to understand why a private developer would embark on such a project. This research is important because it examines a potential solution to a critical problem, China's affordable housing shortage. By exploring different behavioral models as possible explanations for China Vanke's motivations, my analysis revealed the particular elements that helped China Vanke take on this project. Although my assessment showed that this case does not provide a replicable business model, the fact that China Vanke initiated the project nonetheless underscores the fact that this firm and this project have much to teach us about motivations and innovations in affordable housing development.

This paper explored the research question through four different hypotheses, examining each with pertinent literature, its applicability to greater China, the local context of Guangzhou, and the particulars of the Wanhuilou case. By analyzing different aspects of firm behavior, these hypotheses do not necessarily conflict with one another, and their interrelationships indeed help build a solution to this puzzle. The following discussion therefore not only reiterates my findings but also pursues a dialogue among the hypotheses.

The market hypothesis tested whether China Vanke could harness the private market to efficiently and profitably supply affordable housing. If this hypothesis explained China Vanke's decision to build Wanhuilou, then this project would have to provide the highest return on the firm's investment, either representing the best profitmaximizing choice in the present or strategically positioning the firm to reap higher profits in the future. Thus, for the market hypothesis to be true, the underlying behavioral model is the firm's self-interest. Given China Vanke's history of industry leadership, innovation, and financial success, it seemed possible that the firm had discovered a new market niche where it could operate profitably, but a focused examination of Wanhuilou defied both profit-maximization and repeated game theory, suggesting that self-interest in the market did not alone drive China Vanke's behavior.

The policy hypothesis examined whether the central government could use strategic incentives to promote the affordable housing development that rational, profitmaximizing firms neglect, whether through its own programs or policy mandates. If national policies and programs provided an explanation for Wanhuilou, then we would expect China Vanke to be responsive to them. Although the firm responded positively to

government regulations aimed at stabilizing the housing market, it has not participated in government-sponsored affordable housing programs, instead building a unique development on its own. While this test suggests that the policy hypothesis does not fully explain Wanhuilou, it presents an important question: if the government programs do not provide the proper incentives to attract China Vanke's participation, why would the firm want to do affordable housing development at all?

This question perhaps points to an overly narrow description of Wanhuilou as affordable housing. The high number of employees proposed for the tenant makeup may provide a clue that this project represents not just affordable housing but also worker housing, even if China Vanke does not consider or advertise it as such. Perhaps China Vanke believes it will reap greater benefits from its own project that in part serves its employees than from a government-sponsored project that serves strangers. Even if the financial investment is greater for Wanhuilou, China Vanke could imagine that returns in strengthening employee loyalty might mitigate the cost of the project. Although these speculations produce more questions than answers—including uncertainties about the advantages or disadvantages of a worker housing model—they helpfully show that selfinterest could still provide a motivating behavioral model, even if not in the spheres of the market or national policy.

In fact, China's existing model of worker housing arguably exists somewhere in between the private housing market and the public rental sector, perhaps explaining why neither the market nor the policy hypothesis provides a singular explanation of Wanhuilou. The project shares an interesting similarity to China's existing model of enterprises buying private units and renting them to workers at highly subsidized rates, as

outlined in Chapter Two. This model fills an obvious gap between the luxury housing market, where newly built housing remains far too expensive for the average worker, and the municipal public rental sector, where low-cost housing is in shortage because maintenance costs far exceed rent revenues. With a mix of different tenants in addition to workers, and with its exceptional level of amenities, Wanhuilou is certainly distinct from this work-unit housing model. Privately provided but still heavily subsidized, Wanhuilou almost suggests a compromise between private and public, emerging from the market's failure to supply low-cost housing and government policy's failure to supply sufficient amounts of low-cost housing. Still, with no obvious incentives for Wanhuilou, this exploration does not fully explain why a private firm would take on a publicly oriented project.

From this question the local political economy hypothesis provided the next logical explanatory framework, as this hypothesis assessed whether the local government could use its power in the private real estate market to exact a project that serves the public. If this hypothesis provided an explanation for Wanhuilou, we would expect that the local Guangzhou government negotiated a deal with China Vanke to build it. Given local governments' increasing control of state property holdings and housing policy implementation, China Vanke must navigate the local political setting in order to conduct business, making this hypothesis certainly possible. In this scenario, it is no longer selfinterest alone that drives the firm's behavior but also an appreciation of how a firm's interests hinge on the interests of others in important local relationships.

Trends in Guangzhou's land market and local policy implementation establish the decentralized environment conducive to developer exactions, but I did not uncover any evidence of a developer exaction (although the inherently off-the-books nature of local political economy negotiations make it impossible to conclude with certainty that local negotiations did not play a role). While the local political economy hypothesis did not directly explain Wanhuilou, this examination of Wanhuilou has an interesting implication for the local political economy argument, as it demonstrates the agency of a firm—not just the public sector—to initiate a social project and, presumably, capture potential benefits.

This idea of capturing benefits from a social project led to the final hypothesis: the corporate social responsibility hypothesis explored whether social values could inspire China Vanke to pursue affordable housing development. Because CSR is multifaceted, this hypothesis could explain China Vanke's motivations in a number of different manifestations. At the most basic level of CSR, Wanhuilou could represent purely philanthropic behavior, a corporate donation with no expectations for financial return. In a more strategic approach, the firm could pursue the intersection of societal and self-interests, profitably targeting an unmet need for affordable housing and simultaneously distinguishing its products and image. With an underlying orientation towards a firm's bottom line, the CSR hypothesis ultimately connects back to the market hypothesis.

The CSR hypothesis provided a convincing explanation for China's motivations to build Wanhuilou. Although just one activity, Wanhuilou complements China Vanke's larger leadership goals for industry regulation and social harmony and thus serves

multiple CSR justifications: moral obligation, license-to-operate, reputation, and pioneering leadership. This analysis also confirmed limitations to China Vanke's responsive CSR approach, as the project's self-subsidization makes it an unrepeatable business model.

This thesis concluded by imagining the possible benefits of and the necessary conditions for a strategic CSR approach to affordable housing—instead of offering a hypothetical behavioral model to explain China Vanke's project, this lens provided an instructive behavioral model to rethink Wanhuilou. By emphasizing the shared value that emerges from profitably meeting housing demand at the bottom of the pyramid, this model combines a firm's self-interest with society's interest, merging market principles with social goals. This chapter explored initiatives both internal and external to a firm that enable profitable affordable housing development, and it demonstrated that China's government and financial sector do not yet provide the necessary financing tools to make affordable housing development a profitable enterprise.

This discussion shows that even if corporate social responsibility provides the most convincing explanation of China Vanke's affordable housing project, this behavioral model in no way operates alone. And, in fact, strategies from other models could complement China Vanke's current CSR approach—although the firm's innovation is not enough to make Wanhuilou a replicable business model, a structural reform of housing, with help from the financial market and government policy, could potentially make Wanhuilou a sustainable enterprise.

7.2 Further Questions

The previous section revealed that several questions remain about why China Vanke chose to develop Wanhuilou; far more questions remain about the future of the project. After Wanhuilou opens its doors to tenants in the summer of 2008, it will be interesting and important to monitor its operations with the following questions in mind: will China Vanke achieve the tenant mix it intended? How will the firm handle turnover? What will residents think of the housing, the amenities, the self-service maintenance, and the community? How will Wanhuilou residents interact with their neighbors in the adjacent development?

Additional questions should seek to extend our existing understanding of China Vanke's behavior towards the project. How will the firm speak of the project publicly? How will employees consider the project privately? How will the firm incorporate or exclude Wanhuilou in its project profiles?

Finally, future research should assess the project outside the contexts of its operations and the firm. Will the government make an official statement about it? How will other private developers react? These questions are important because even though this thesis studied firm behavior, it recognized that a firm does not operate in a vacuum.

At first glance an unprofitable affordable housing project initiated, built, and subsidized by China's largest real estate developer would seem to exist in a strange sphere of its own, seemingly unrelated to previous housing models and equally untransferrable to the future. In fact, however, Wanhuilou is the result of multiple forces both inside and outside China Vanke—some new, some established, and some surprising—and they will continue to shape Wanhuilou and its potential replicability.

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