Suburban Residential Development in China: A Case Study of Jiangning District in the City of Nanjing

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I, Tianke Zhu confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.
Abstract

This research aims to explore the heterogeneous types of suburban residential developments in China and the motivating factors in residential relocation. Furthermore, it explores the link between the development process and dynamics and also provides an empirical case for enriching suburban studies. It is commonly believed that the current form of suburbanisation in China is created by rapid land use transformation and spatial reconfiguration following the establishment of a land market. The emerging suburban development is dominated by a top-down strategy of urbanisation, which is attempting to transform state-led industrialisation to a market-oriented land system. Despite the dominant role of government in creating diverse forms of residential suburbs in China, all sectors have been involved in the transformation of rural land for urban use in the contemporary suburban development.

The central focus of this research is to explore Chinese residential suburbs, guided by the following three questions: What are the patterns of suburban residential areas in China? How are these patterns formed in Chinese suburbanisation? How is suburban residential development socially shaped by diverse residents and sectors. The study is based on an in-depth case study of Nanjing and one of its suburban districts, Jiangning. Qualitative critical analysis, quantitative social analysis, and statistical analysis are used in this study.

While massive suburbanisation has recently emerged in China through the strategy of new town development, massive newly built residential suburbs are developing throughout Chinese cities. A land-centred accumulation regime promotes both real estate development and industrial development, which mutually support each other. Moreover, the unprecedented speed of economic growth and the urbanisation process result in massive housing demands in the urban-peripheries of Nanjing. The current highly centralised and authoritarian governance of suburban development, through a separate institutional body, acts as a leader in private enterprise, making the heterogeneous suburban residential development in Nanjing a special case in suburbanisation studies. The suburban housing demand continues to be an important
solution for different aspiring segments of society and is largely seen as an opportunity for moving upwards. The government-led and market-oriented suburban land development encourages various public and private sectors to participate in the development of the suburban housing market. The spatial forms are composed of five interwoven aspects in the planning process, led by the entrepreneurial government. These aspects include a booming housing market and population growth, industrial restructuring, rural-urban migration, urban-rural integration, and capitalisation of the land market. The diversified suburban housing supply is a result of the difference in housing demand and preferences between different social segments in Nanjing. Their different social attributes, residential mobility, housing demands, and lifestyles create heterogeneous suburban space.

The study argues that the theoretical generalisation of modalities and mechanisms of suburban governance has to be enriched by unpacking the typology of suburban residential spaces at a much finer scale. It is shown that both suburban patterns and population compositions are more diverse than what is traditionally imagined. However, the diversity of spatial forms of suburban residences varies with market demand, residential preferences, and consumption. Also, the diversity of a suburban population composition varies with distance from the city centre and income levels of the residential neighbourhoods.
Impact Statement

This thesis provides one of first systematic scrutiny and investigation of China’s recent large-scale suburban estate, and takes a new suburban district of Nanjing, China as an example to explore the diverse suburban residential types, mechanism and heterogeneous relocating factors and residential choice. The thesis contains the comprehensive overview of mostly state-led or developer-led formal suburban housing projects to data. The claim of the thesis is to bring the perspective on suburbanisation in global context and it aims at offering a better understanding of massive suburbia for research on the dynamics of new suburbia. This claim could develop a more complete understanding of Chinese suburbanisation, paying particular attention to the views of suburban residents. This analysis aims to find out who lives and works, and why residents live in the recent growth of suburban area in China. This could also develop a more holistic and clearer conceptualisation of suburban residential typologies. This helps inform planners a clearer, more systemic concept of Chinese suburban residential growth, suggestions to the government for future planning and governance, and recommendations to developers on the basis of theoretical studies. Specially, the case of Jiangning District, Nanjing demonstrates diverse residential types and how these types are developed and governed. Underlying all of these issues is the critical question as to what Chinese suburbs look like, not just in terms of their patterns at large but also more particularly their processes, residential forms, residents and their various motives.

Findings in this thesis have started to inform academic debates through their dissemination in a series of presentations. This include one in a specialist international conference on China Urban Development (London, 2017), as well as others in the American Association of Geographers annual meetings (Chicago, 2015) and at a workshop on “Building and Rebuilding the Urban Periphery” at Fudan University in Shanghai (Shanghai, 2015). The workshop was part of the Major Collective Research Initiative (MCRI) on Global Suburbanisms: Governance, Land and Infrastructure in the 21st Century (www.yorku.ca/suburbs). These presentations and discussions have
further aroused the academic interest in China’s suburbanisation, including its impact on China’s large-scale new towns, as well as its supplement to China’s examples in the global context.

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Content

Chapter One: Introduction.................................................................17
  1.1 Research background...........................................................17
  1.2 Research objective .............................................................17
  1.3 Organisation of the thesis ....................................................19

Chapter Two: Literature review: Suburbanisation and Chinese suburban living
............................................................................................................22
  2.1 Introduction ............................................................................22
  2.2 Reinventing suburbanisation in western market economies ..........23
    2.2.1 The growth of suburban America .......................................24
    2.2.2 Changing suburbs: Diversified social classes .......................28
    2.2.3 The suburb as a growth machine .......................................32
  2.3 Suburbanisation in post-socialist economies ................................33
    2.3.1 Suburban residential development ....................................34
    2.3.2 Suburban newcomers in post-socialist countries ..................36
    2.3.3 Market-led suburbanisation in metropolitan areas in post-socialist economies .........................................................37
  2.4 Suburbanisation in China .......................................................39
    2.4.1 New trends of suburbanisation in China ...............................42
    2.4.2 Heterogeneous forms of suburban residential development .......44
    2.4.3 The diversified social backgrounds of suburban residents .........46
    2.4.4 New towns as a form of suburban development ....................47
  2.5 Discussion ..............................................................................50
  2.6 Conclusion ..............................................................................53

Chapter Three: Research framework and methodology ..........................56
  3.1 Research framework ..............................................................56
    3.1.1 Research questions and hypothesis ....................................57
    3.1.2 Reasons for case selection ...............................................59
  3.2 Methodology ...........................................................................62
3.2.1 Secondary data sources ...............................................................62
3.2.2 Semi-structured interviews .......................................................63
3.2.3 Questionnaire survey ...............................................................64
3.3 Data analysis ...............................................................................65
  3.3.1 Qualitative analysis .................................................................65
  3.3.2 Quantitative analysis ...............................................................66
3.4 Summary .......................................................................................66

Chapter Four: Massive suburbanisation: Diverse suburban developments in Nanjing ........................................67
  4.1 Introduction ..................................................................................67
  4.2 New approaches to suburban development in China ......................68
    4.2.1 The political economy .........................................................68
    4.2.2 An approach to housing reform ............................................69
  4.3 The history of Nanjing’s suburban development ..............................71
  4.4 Program, plan, and policies ..........................................................74
    4.4.1 Program: from an Economic Technological Development Zone to a new town in the strategy of “One City, Three Districts” .........................................................74
    4.4.2 Policies ..................................................................................77
    4.4.3 Plans .....................................................................................78
  4.5 Optimising the environments of suburban development ..................82
    4.5.1 The institutional environment .................................................82
    4.5.2 The investment environment ..................................................85
    4.5.3 The real estate environment ...................................................88
  4.6 Entrepreneurial governance and growth coalitions ..........................90
    4.6.1 Entrepreneurial governance ....................................................90
    4.6.2 Growth coalitions .................................................................92
    4.6.3 Massive demolition and requisition .........................................95
  4.7 Conclusion .....................................................................................98

Chapter Five: Heterogeneous suburbs: Diversified development ................103
  5.1 Introduction ................................................................................103
  5.2 The rise of heterogeneity in Jiangning District ...............................105
    5.2.1 Heterogeneity in improving functions ..................................105
5.2.2 Heterogeneity in spatial development .................................................. 107
5.2.3 Heterogeneity in the development of commercial projects ................... 110
5.2.4 Heterogeneity in housing supply and demand ...................................... 113
5.3 Living in the suburban villa: The utopia of the affluent class .................... 117
  5.3.1 A symbol of the “good life” ............................................................... 117
  5.3.2 Naming projects ............................................................................. 122
  5.3.3 Gating projects ............................................................................. 125
5.4 Living in an apartment: The club realm of the middle class’s common interests
  ............................................................................................................... 129
  5.4.1 A self-contained lifestyle ................................................................. 129
  5.4.2 Form: Mid-rise development ......................................................... 133
  5.4.3 Forms: Heterogeneity in architectural styles .................................... 137
5.5 Mixed-housing development .................................................................. 141
  5.5.1 The development process ............................................................... 141
  5.5.2 Forms of mixed housing settlements ............................................... 144
  5.5.3 Implications for suburban life ......................................................... 153
5.6 Resettlement: Apartments for relocated households .................................. 158
5.7 Conclusion ........................................................................................... 165

Chapter Six: Moving to and living in Jiangning: Dynamics and social impacts
.................................................................................................................. 170
6.1 Introduction ............................................................................................ 170
6.2 The growth of suburban residents and social patterns in Jiangning District... 172
  6.2.1 Population growth and the booming housing market ....................... 172
  6.2.2 Industrial restructuring ................................................................. 173
  6.2.3 Rural-urban Migration ................................................................... 176
  6.2.4 Urban-rural integration ................................................................. 177
  6.2.5 Capitalisation of land market with government-led strategy ................ 178
6.3 Living in Jiangning District: Housing choices and preferences .................. 179
  6.3.1 Types of housing choices: Villas versus apartments ....................... 180
  6.3.2 Preferences of housing choices ...................................................... 182
6.4 Heterogeneous living: Empirical evidence .............................................. 184
  6.4.1 Data and modelling ....................................................................... 184
  6.4.2 Results: Socio-economic profiles .................................................. 186
List of Tables

Table 4.1 The main indicators of Jiangning’s economic and social development according to the Twelfth Five-Year Plan ...................................................84
Table 6.1 Development and construction data between 2009 and 2010 ........174
Table 6.2 Summary of entrepreneurial categories in Jiangning’s three major industrial parks.................................................................175
Table 6.3 A comparison of socio-economic profiles among the three groups...187
Table 6.4 The major factors of residential relocation among the three groups ......190
Table 6.5 Major factors that residents considered in moving to their current homes .................................................................191
Table 6.6 Descriptive statistics of the variables of the three groups in Jiangning ...194
Table 6.7 Results of logistic regression analysis: A comparison of the social profiles of the three groups in Jiangning................................................195
Table 6.8 The likelihood of living in a villa ..................................................201
Table 6.9 Differentiation of three sub-districts ...........................................207
List of Figures

Figure 3.1 The Location of Jiangning District and Jiangning New Town in Nanjing...61
Figure 4.1 The number of residential projects in each of Nanjing’s districts between 2006 - 15 .................................................................................................................90
Figure 5.1 Real estate project development in Jiangning from 2005–15 ..........110
Figure 5.2 Typical commercial complex and office buildings in Jiangning ........113
Figure 5.3 The demand and supply of suburban housing areas in Jiangning, 2015 .................................................................................................................114
Figure 5.4 The supply and demand of housing areas in Jiangning, 2007-2015......115
Figure 5.5 Comparison of average housing prices in Nanjing and Jiangning, 2005-2015 .................................................................................................................116
Figure 5.6 A homogeneous villa-style suburban community in Jiangning........120
Figure 5.7 An affluent suburban community with beautiful environment and spaces .................................................................................................................121
Figure 5.8 The name of a high-end settlement in Jiangning: “Antelope Block”....124
Figure 5.9 The gate of “Master Land Villas” and a long path to the gate ..........127
Figure 5.10 A middle-class gated community, Vanke Paradiso ......................131
Figure 5.11 Mid-rise settlements are built along Jiangning’s main street..........135
Figure 5.12 A community with western architectural style .........................138
Figure 5.13 The former architectural style was used in designing suburban villas.140
Figure 5.14 The gating facilities within a residential community and the new development villas behind the gate .................................................................141
Figure 5.15 A residential cluster is composed by high-rise apartments and low-density villas.................................................................................................................147
Figure 5.16 An entrance of a residential quarter: the modern and high-density apartments along the street.................................................................149
Figure 5.17 A commercial complex combined with a theme park ............152
Figure 5.18 Typical resettlement apartments on the urban fringe of Nanjing...159
Figure 5.19 Relocated housing types integrate with two middle-rise commodity residential buildings.................................................................161
Chapter One: Introduction

1.1 Research background

Chinese suburbanisation has traditionally been seen as the result of state-led land use changes and the marketisation of land development, along with population movement (Zhou and Logan 2008). Existing studies reveal that suburbs represent the most active areas in the Chinese metropolis today, with two thirds of Chinese suburbs emerging in various ways, comprised of diverse types of residences and inhabitants from wide-ranging social groups (Zhou and Ma 2000). Suburbia represents a heterogeneous social space, and the meaning of suburbs involves residents with different social backgrounds and a mix of motives (Harris 2010). In the global context of suburban study, much of the literature has focused on western suburbs, but there are significantly fewer studies on Chinese ones (Clapson and Hutchison 2010). If a study on suburbs is to contribute to urban theory, it is essential to understand how these places are developed and governed. Underlying all of these issues is the critical question as to what Chinese suburbs look like, not just in terms of their patterns at large but also more particularly their processes, residential forms, residents and their various motives.

1.2 Research objective

The thesis includes two objects. The first objective is to provide a comprehensive understanding of contemporary suburban development and its distinct residential forms. Existing studies on the topic of Chinese suburbanisation remain lack of attention to look at moving motivations of suburban residents and the factors in forming current suburban spaces. The essential of government approaches and changing policies context of suburban development in China are not clear. On the one hand, many terms have been used to capture the emerging complexity of suburban spaces and settlements in the western context, while these descriptions remain limits to their wider implication to depict the contemporary urbanisation in China and its companying
suburban forms. On the other hand, in shaping the diversity of the suburbs, the role of relevant groups, the basic principles of the policy, the way it attracts other sectors, and the relationships between the different actors in the process are unknown. In the global context, people now believe that suburbs present heterogeneous spaces in terms of their economic developments and the features of post-suburbanisation. The state-led and developer-led formal housing have become the dominant types of housing provision, yet the diverse residential forms, formative mechanism and factors, and residential preferences in shaping heterogeneity of suburban residential patterns are less investigated. Meanwhile, the recent suburban development demonstrates a heterogeneous social spaces and the meaning of suburbs also involve residents with different social status and the mix of motives. However, there is still a lack of research and discussion on the factors that drive the resident’s level of diversified suburban living spaces. Therefore, the study will empirically analyses the residential preference over different residential typologies and reveal their underlying driving forces.

The other objective of the thesis is to bring the perspective on Chinese new suburbia in the global context, and it aims at offering better understanding of massive suburbia. Current suburban theory is based on the western context, which are mainly built on American-European suburban world. Western theories reveal that the middle class move to the suburbs to escape urban decline and “urban illness” in inner-city areas (Fishman 1987). Suburban growth, especially suburban residential development is a consumer based American dream (Kelly 1993), and also known as exclusivity and homogeneity (Forsyth et al. 2009). However, heterogeneity rather than homogeneity is widely seen in the global south, especially in the emerging economies (Ekers et al. 2012). More importantly, suburban growth is a worldwide phenomenon (Wu and Phelps 2011). Therefore, the study of suburban theory needs to establish a common conceptual framework to theoretically analyse new suburban forms. It is important to bridge the global north and south, and the classical theory based on western context, especially those based on American society should be combined with the emerging new suburbia. China offers an important case to conceptualise the framework. Moreover, the topic of suburban heterogeneity is becoming popular, with increasing focus and discussion following the recent growth of suburbanisation in China (Harris 2010). Suburbs represent the most active areas in the Chinese metropolitan area, their
diverse types of residences and heterogeneous social groups make up China’s emerging suburban growth. By investigating the suburban development in China and its residential spaces, this study enriches the theoretical generalization of modalities and mechanism of suburban governance.

1.3 Organisation of the thesis

The thesis is structured into seven chapters. The first three introduce the study’s background, literature review, framework, research questions, and methodologies. Chapters 4–6 comprise the main body of the study. Chapter 4 examines the development processes of massive suburbanisation in Nanjing and related policies. Chapters 5 and 6 cover an intensive examination of Jiangning District. While Chapter 5 focuses on how heterogeneous suburban neighbourhoods have developed, Chapter 6 addresses how residents move about and live in Jiangning District. Finally, Chapter 7 summarises the main findings and reflects on their broader theoretical and practical implications.

Following the introduction, Chapter 2 contains the literature review and the study’s theoretical context. It first examines diverse patterns of suburban development across the world, and reviews the classical U.S. model to conceptualise suburbs within a specific local context. The chapter then investigates existing studies on China’s suburbs, revealing that heterogeneous suburban growth has emerged in the context of rapid urbanisation. Meanwhile, the motives of the government, the private sector and suburbia have diversified the progress of suburban expansion. Finally, based on theoretical findings from outside China, a framework is elaborated to look at the dynamics of Chinese suburbs. The analytical framework builds the foundation for future research, connecting the suburban theory of the Global North to China, while also emphasising China’s local factors to respond suburban heterogeneity in the global context.

Chapter 3 raises research questions and their hypotheses according to the framework. Methods of data collection and analysis are detailed. This study is based on collected
secondary data and original first-hand data from a survey and fieldwork. The analytical methods contain both qualitative and quantitative analysis, which elaborate and answer the research questions. Multiple data sources and results are used to provide substantial, convincing evidence to explain the theme of this study, which is that suburban residential development in China is heterogeneous.

Chapter 4 expands on the process of government-led and market-oriented suburban growth in Nanjing, arguing that the recent wave of suburban development, characterised by new town development, represents a consequence of population movement in China, and is also an integral part of the transformation from state-led industrialisation to a market-oriented system. By reviewing relevant policies, planning practices, and strategies, Chapter 4 investigates the motives underlying the formation of suburban landscapes, demonstrating the government’s active role in facilitating market-oriented and sustainable growth of land development. Finally, Chapter 4 identifies metropolitan Nanjing’s spatial structure to illustrate the overall effects of suburban residential distribution.

Chapter 5 focuses on Jiangning and analyses how the district has witnessed diverse types of settlements under state-led, entrepreneurial governance. The chapter first examines the growth of suburban heterogeneity in Jiangning in the context of the decentralisation of fiscal and administrative power, represented by the approach of entrepreneurial governance. The state-led entrepreneurial strategy is implemented at all levels of local government, symbolised by urban competitiveness, in order to illustrate the mechanism behind diversifying suburban settlements. By more closely investigating the four types of suburban settlements, this chapter reveals how residential heterogeneity is reflected in the development process, forms, lifestyles, social groups, and local impacts.

Chapter 6 identifies demand-based factors that affect growth in Jiangning. Chapter 6 first reviews the dynamics of the emerging compositions of suburban residents and social patterns in the district, analysing population growth, the booming housing market, industrial restructuring, and rural migrants. This is followed by an empirical study based on data from the survey, examining the heterogeneity of suburban
residents and spatial patterns. A range of statistical methods is applied to determine how various groups of people differ significantly from each other based on their socio-economic attributes, housing preferences, and settlement location. Furthermore, qualitative analysis based on interviews is used to help explain the quantitative results.

Chapter 7 concludes the study. The research questions are answered by first summarising the main empirical findings. This is further framed by the concept of suburban living theory, and a comparison of suburban residential development in China with similar patterns in other countries. In brief, Chinese suburbs follow the framework of both urbanisation and industrialisation. The diversity of suburban residences’ spatial forms varies with market demands, residential preferences, and consumption, and heterogeneity occurs under the government-led strategy of transforming rural land into urban land. The last section covers the broader implications of suburban growth for China’s new urbanism, and the case of the country’s state-led model for sustainability.
Chapter Two: Literature review: Suburbanisation and Chinese suburban living

2.1 Introduction

The meanings of suburbs involve mixed motives, as well as residents’ mixed social identities (Harris 2010). Suburban growth in China has resulted from economic restructuring as well as the marketisation of urban land, coupled with population movement (Zhou and Logan 2008) and diverse types of residential development (Huang 2006, Rubin and Babbie 2007, Pow 2009, Wu 2010). Firstly, suburban expansion in China is defined by land use transformation and spatial reconfiguration driven by land development. Despite this, it is important to note that suburban growth is highly heterogeneous and represented by different types. Secondly, passively relocated households are no longer the dominant source of Chinese suburbanisation patterns (Feng et al. 2008), but the market’s growing role has had a greater impact than before on suburban residential development. Thirdly, Chinese suburbs are diverse, both in terms of their building forms and residential make-up (Wu 2010).

This chapter critically reviews existing literature on suburbanisation, suburban residential growth, and how one type of residence corresponds to the dynamics of development based on different compositions of residents. The thesis begins with a literature review of suburbanisation in western countries, and, since China has a history of socialism, this thesis examines relevant experiences from Central and Eastern European countries. As part of this review, the distinctive driving forces and characteristics of suburban areas are also explored. A coalition of multiple interests facilitates suburban growth in China, specifically in terms of how suburbs are developed and governed; the following sections elaborate on this. Subsequently, literature that focuses on suburban residential expansion is investigated. Finally, this chapter discusses the trend of Chinese suburbanisation, as well as the impact of the market’s growing role on heterogeneous suburban forms.
Existing studies have paid less attention to Chinese suburban residential forms, and the diversity of spatial forms is currently understudied. Some investigations have contributed to the literature on Chinese suburban forms, but are less concerned with residents’ views and preferences. Therefore, this study focuses on suburban social spaces is very meaningful.

2.2 Reinventing suburbanisation in western market economies

“In the traditional and literal sense, ‘sub-urb’ means outside, beyond or below the ‘urb.’ It not only illustrates suburbs as a physical and geographical separation from the city, such as outside the city gate, moat or wall, but implies a relative status differential as well” (Bourne 1996, 163). Today, Forsyth et al. (2009) criticise differing perspectives on the concept of the suburb, which conceive it as “a place with monotony of middle- and working-class housing”; “privileged suburban development over infill (re)development”; “a good housing option for many people”; and as being known for “exclusivity and homogeneity” (ibid: 46). In physical terms, the suburb in western countries is usually described as low-density and places reflecting personal preferences. In social terms, the suburb accommodates middle-class families and urban elites that pursue improved living conditions (Fishman 1987, Harris and Larkham 1999).

Furthermore, images representing the suburb widely characterise it as socially homogeneous, occupied predominantly by people of one social class and household type, with relatively similar jobs, economically dependent on the central core, and as symbols of more or less closed societies (Bourne 1996). Many notions such as ‘edge city’ (Garreau 1991), ‘edgeless city’ (Lang 2003), ‘technoburbs’ (Fishman 1987) and ‘post-suburbia’ (Teaford 1997) have been invented to describe urbanised areas outside the central city boundary.
According to Rubin and Babbie (2007), suburban development indicates the transformation of suburban land into more intensive land expansion. Meanwhile, suburbanisation specifically refers to the growth of suburbs resulting from the decentralisation of the population, as well as economic activities from the urban core after the core has experienced an extended period of economic growth, reaching a high level of population concentration and intensive land use (Zhou and Ma 2000). However, the demographic makes up the suburbs and their reasons for moving there are also issues worthy of academic inquiry, namely to conceptualise the diversity of suburb, and to clarify how they are defined. This is of particular concern for residents (Harris 2010).

2.2.1 The growth of suburban America

Traditional literature on U.S. suburbs conceptualises them as homogenous entities, yet this perspective is commonly regarded as the suburban dream (Kelly 1993) in that U.S. suburbs are monotonic places where families can have large, spacious homes with better living environments and good schools while avoiding increasing urban ills (Fishman 1987). Classical theory also explains that the suburbs in America feature single family houses, low population density, beautiful environment and are occupied by young middle class families. Although the classical explanations illustrate that suburbanism is both an ecological phenomenon and socio-psychological state (Fava 1956). Gans (1962) argues that the way of life in the suburbs differs from that of the inner city. The low density of development, the mass use of automobiles, the social similarity of residents and the scattered land use are in contrast with the urban life that was featured as dense and diverse (Jacobs 1961, Beauregard 2006). Evidence suggests that residential development plays an important role in suburbanisation; suburban residential development is not only an outcome of suburbanisation but also leads to spatial transformation. A new spatial pattern socially influences the way of urban living that middle class residents began to adopt the suburban lifestyle as a way of escaping urban decline and “urban illness” in inner-city area since the post-war decades in the American society.
Meanwhile, many scholars argue that the American suburbs have evolved into gated and master-planned communities (Blakely and Snyder 1997, Low 2001, Knox 2008), which often form a sharp contrast to nearby slums (Davis 2006). Low (2003) asserts that gated communities have become a new symbol of the American, middle-class, suburban residential form because they provide a sense of security and safety, properties retain their resale value, and they generally have stable surrounding environments. They offer temporary respite from the increasing conflicting social values of modern suburban life, especially in rapidly growing areas. Meanwhile, social polarisation and segregation are reinforced in contemporary suburban forms. Compared with middle-class families that relocate in the search for a better living environment and increased privacy, other residents particularly low-income and working-class families, are mainly driven by economic considerations. Some studies show that enforced resettlement to the suburbs has taken place in some western countries where families are displaced from central cities (Davis 2006); this enforced settlement has not been prolonged, mainly due to local resistance and democratic limitations on state power (Harris 2010).

Suburban employment is another point that impacts the patterns of suburban residences (Logan and Golden 1986). Industrial parks, centres for employment, offices, shopping malls, and gated communities have emerged and led to the occupation of urban peripheral areas with middle-class families. The distinctive character of the suburban form is built as the bourgeois utopia (Fishman 1987). No doubt, the rise of the new bourgeoisie and the low cost of mobility are the most significant social factors driving these residents to relocate to the suburbs (Ewing et al. 2003, Knox 2008). Along with population growth, suburbs in these nations represent diverse forms due to their growing social significance. In fact, in relation to the argument that suburbs imply a relative status differentiation, suburbs are no longer “sub” to central cities today (Zhou and Ma 2000). Notwithstanding, these areas are still places for poor immigrants: mostly filled with working-class settlements, intentionally created by the government. Knox (2005) describes the changing urban landscape in contemporary cities as containing growing “privatetopias.” The way of living in these suburban areas is inspired and motivated by the essential concept of the suburban lifestyle, which is focused on private domesticity (Harris and Larkham 1999).
Residents with the same social level and job type are sorted into the same suburban communities; for instance, working-class families live in traditional manufacturing suburbs. The reason why the service sector dominates the monotonic suburban residential pattern is complicated, but the most significant factors are still housing prices and spatial segregation. The emergence of a distinct suburban residential pattern influenced by social class and income level reinforced homogeneous growth patterns for a long time in the past.

Another perspective emphasised or indeed assumed that suburban residential patterns develop based on the decisions of households who relocate from cities. The fundamental questions are “who moves in” and “who moves out” (Bollens 1988, Bier 2001, Smith et al. 2001, Puentes and Orfield 2002, Vicino 2008, Orfield 2011). Evidence illustrates that the monotonic suburban residential pattern does not result from decentralised population and employment. The decline of suburban residential communities is not simply due to an influx of lower-income residents from central city, but is also caused by the urban function spreading to more distant suburbs. Moreover, residents who live in the inner suburbs have lower incomes than residents who live in outer ring suburbs. Meanwhile, many older residential communities in the suburbs have gradually transformed into ethnically diverse areas (Kotkin and Staley 2001). Thus, research suggests that the social sorting of residents plays an important role in influencing the emergence of a suburban pattern in the western context.

A useful concept was presented by Soja (1989), who argues that the restructuring process of Los Angeles was one of geo-graphical decentralisation and recentralisation. Garreau (1991) elaborates on the notion of edge cities, which he defines as peripheral areas in U.S. urban hubs, stating that they represent large, diverse, information-age cities. Empirical studies have explored diverse perspectives, such as questions regarding population density (Bourne 1989), land prices (Heikkila et al. 1989, McMillen and McDonald 1998), and the rising number of offices in the suburbs (Bourne 1996). Even though many cities are facing overall population decentralisation, their populations are still growing in the downtown areas (Sohmer and Lang 2001). Based on this phenomenon, Bier (2001) analysed the cycle of housing movement and its
impacts on new residential development in the central core and older suburbs. He maintains that economic growth in metropolitan regions drives populations and businesses to move further away from the central core and older suburbs as the demand increases for cheaper, more recent, larger pieces of land for a new round of housing and business development. He infers that as the demand for newer and bigger housing in the metropolitan fringe rises, this leads to a new round of decentralisation in central cities and older suburbs, with the features of abandoned homes and workplaces appearing in older suburbs. Urban sprawl may result in the decline of existing, built-up areas such as new towns and older suburbs (Freilich 1998). Moreover, newly built-up residential communities in the outer suburbs may hinder existing communities’ future growth potential (Freilich 1997).

Since suburban growth has been occurring for a long time, some scholars have turned their focus from suburban growth to post-suburban developments. The development of suburbs is driven not only by residential preference, but also by densification of suburbs and increase of service activities (Phelps et al. 2010). Wu and Phelps (2008) summarise the main features of post-suburbia: With the decline of inner and older suburbs, ex-urban areas begin to grow as a “patchwork structure.” The boundaries of the modern metropolis have become increasingly blurred. Post-suburban settlements have achieved a greater balance between work and home, with features of mixed land use. Investments in suburban areas involve a more complicated coalition between the public and private sectors. Urban sprawl forms a restructuring process and a distinct phase of urbanisation. The densities and functions in suburbia and cities appear equal and balanced.

The aforementioned features of “post-suburbs” reflect the nature of urban growth and social economic foundations. However, there is no doubt that suburban expansion is seeing increasing economic and social diversity. Knox (1991, 190) has argued that radical changes have emerged in American cities, pointing out that “economic and sociocultural change has led to the emergence of a number of distinctive new urban settings and the implication of this transformation is change in the organisation, production and consumption.” Hayden (2003) divided seven periods of suburban development into different practices and architectural preferences. From the
perspective of spatial structure, cities and suburbs are part of the metropolis as a whole. Suburb plays a role for spatial fix to promote capital accumulation (Harvey 2005). From a social and economic angle, the spatial changes of urban patterns can be viewed as shifts in demands and supply, as well as for consumption and reproduction of capital (Shen and Wu 2013).

Furthermore, suburban residential development leads to urban sprawl, and is a product of market imperfection, rather than a reflection of market forces (Ewing 1997). This argument stands in opposition to the ideal that markets play a dominant role in urban sprawl, tacitly implying that consumers and businesses prefer outlying areas because of cheap land and a better environment. However, due to the decreasing cost of mobility, people are increasingly living in suburbs far from their workplaces, resulting in urban decentralisation (Gordon and Richardson 1996). Ewing et al. (2003) maintain that consumer preferences, technological innovation, subsidies, and public goods are the four forces that stimulate urban sprawl, thereby emphasising the market’s role in facilitating suburban growth. However, despite the consequences of suburban growth emanating from both sides, their fundamental ideas still imply that socio-economic development is the most significant motive driving people to move to the suburbs in western countries. Compared with Gordon and Richardson (1996), rather than simply highlighting the city-suburb relationship, Ewing (1997) offer a more constructive analysis, as their perspective privileges suburban residents and intends to illustrate realistic issues that suburban residential development raises today in western countries (namely, the absence of mixed land use in suburban zones, a lack of accessible open spaces, low density in suburban communities, and unsustainable automobile transit).

2.2.2 Changing suburbs: Diversified social classes

A massive upsurge in suburbanisation caused an explosion in the population, leading to significant growth of U.S. suburbs. Meanwhile, the concept of decentralisation has grown, and has had a significant influence on the process of suburbanisation in the United States (Fishman 1987, Knox and Taylor 1995, Knox 1996, Hayden 2003,
Hayden 2009). For example, a new form of urban spatial structure has been created, along with the expansion of suburban development. This has resulted in various studies on the polycentric urban form and its perceived impacts on western cities (Bourne 1989, Hartshorn and Muller 1989, Waddell and Shukld 1993, McMillen and McDonald 1998). The ‘polycentric’, as the solution to sort out the monocentric development was accepted in addressing the decentralisation. A great deal of evidence signals that the form of suburban expansion most characterised as sprawl is scattered development (Ewing 1997), which has been tied to the trend of decentralisation of manufacturing jobs and working-class families since the middle of the nineteenth century (Harris and Lewis 1998, Harris 2004, Lewis 2004, Kruse and Sugrue 2006). The meaning of “suburb” has been interpreted as an outer, suburban, or edge city, thereby forming a polycentric urban spatial structure (Harris and Lewis 2001).

Although, suburban growth caused by polycentric development is considered as negative, while another viewpoint stands in opposition to this, and has been regarded it as dysfunctional form of urban growth (Qian and Wong 2012). Because suburban area was subsequently criticised due to their lack of a social environment (Duany et al. 2011). Furthermore, increasing amounts of manufacturing sectors in the suburbs also resulted in the increased cost of commuting for urban residents. Thereby, urban residents prefer to reside themselves in peri-urban area, and the form of residents is diversified due to the distance from the urban centre to the suburban area. Hall and Lee (2010) make use of entropy indexes to estimate levels of diversity for both suburban rings and places, which proclaim this stance to be the “suburban nightmare” and arguing that current suburbs in the U.S are demographically heterogeneous. Hanlon et al. (2006) found that suburbs are diverse in terms of their racial and socio-economic composition. Frey and Berube (2000) supplement this with their findings, showing that household structural changes, including non-familial households, have had an effect on suburban diversity. For example, the rise of ‘boomburbs’ (Lang and Simmons 2003) and “edge cities” (Garreau 1991) has narrowed the differences between cities and suburbs.
A number of investigations argue that American suburbs are exposed to poverty, especially where low-income families live in public or private housing (Leontidou 1990, Hirt and Stanilov 2009). Yet as a rising number of moderate and lower-income families move into the suburbs, they have changed the stereotypical image of middle-class suburbs and accelerated the process of stratification (Orfield 2011). Therefore, manufacturing suburbs and poor suburbs may become even more common in the United States. Meanwhile, the literature regarding racial mixing in recent years (Fasenfest et al. 2004, Mikelbank 2004, Frey 2006, Hanlon et al. 2006) has found that while mixed black-and-white communities are in decline, other forms of diverse suburban communities are on the rise such as manufacturing suburbs, black suburbs, and immigrant suburbs. As more varied phenomena emerge in U.S. suburbs, some studies have explored the income gap between suburban and urban families (Ewing 1997). Other relevant studies reveal that 20% of suburbs have witnessed greater income declines than their corresponding central cities (Vicino 2008). Collectively, these studies demonstrate that suburbs in the United States have become more diverse than their origins and tended to be heterogeneous. Although the suburbs contain lower-income settlements, some evidence demonstrates that offices and industries are increasingly relocated there, despite suburbs being occupied by workers and minorities (Harris and Larkham 2003, Hayden 2003, Harris 2004, Kruse and Sugrue 2006, Hayden 2009). Research indicates that growing numbers of low-income families that move to the suburbs have resulted in the decline of inner suburbs, while low-income families play an important role in facilitating greater suburban diversity (Li 1998).

The development of suburban diversity is always associated with institutional changes. Several studies discuss the diverse range of suburban residence forms in western contexts. While terms such as ‘edge city’ (Garrea 1991), ‘edgeless city’ (Lang 2003), ‘technoburb’ (Fishman 1987), ‘satellite town’ (Logan and Gloden 1986) and ‘manufacturing suburb’ (Lewis 2008) are always used to identify the numerous images of the suburban form, not many scholars in the western context seem to be concerned with the monotonic residential pattern. This situation may relate to the driving forces of suburbanisation; in the western context, most suburban residential developments involve a coalition of personal choices and economic interests. However, the
consumer-based American suburban dream signals an affluent way of life. Yet no matter what forms a suburb takes on - regarding the variety of races that have mixed and how facilities have been inserted into suburban towns and other types of suburbs - they are categorised by overall social economic status. This mainly occurs since groups with higher social status normally intend to find newer, better environments to improve their living conditions and exemplify their social status; meanwhile, low-income and poor immigrant families usually consider the surroundings to be better than their former location (Lacy 2004). The dynamics influencing each social group to relocate to the suburbs thereby reflect the process of spatial reconfirmation.

In order to address the question of who moves out of suburbs in the U.S, two main theories are utilised: ‘the natural evolution’ theory and the ‘flight-from-blight’ theory (Mieszkowski and Mills 1993). These theses posit the fundamental idea that suburbanisation is relative to private domesticity. From this angle, wealthy families are willing to move to the outer suburbs in pursuit of privacy and a better quality of life when inner suburbs begin to decline. If we trace the origin of the suburbs, they fundamentally provided a place used to avoid urban ills. Hence, the decline of inner suburbs mirrors that of the urban core, as both share similarities in terms of growth and decline (Phelps et al. 2006). Many studies have discussed the socio-economic forces that stimulate suburban heterogeneous growth, including personal preferences (Orum 1995), the suburban land economy (Ewing 1997, Teaford 1997), the rise of the new bourgeoisie (Knox 2008), private domesticity (Harris and Larkham 1999), and a change in personal demand and supply (Hayden 2003). Notwithstanding, the classic conception of suburbs emphasises that suburban living promotes seclusion for both the elite and the middle class. However, the low cost of land in the suburbs has driven a wide range of people to move there (Harris and Lewis 1998). A useful departure points for understanding this more deeply is the notion that “suburbia … must always be defined in relation to its rejected opposite: the metropolises” (Fishman 1987, 27). Even though cities offer more job opportunities, lower housing prices and a better quality of life are enough to attract low-income families to the suburbs. Some investigations suggest that suburban residents are not all from urban areas; some are rural migrants, and their settlements are distinctive, with middle-class communities. Harris (2010) contends that suburban residence typology not only involves the range
of suburban types but also the logical manner of suburban newcomers, the fundamental idea being that suburban living is not always the first choice for all residents. They include people who have chosen to live in the suburbs, as well as those who have been forcibly displaced. Although some urban residents prefer to live near the downtown area by personal choice, some are driven by cheaper land costs.

2.2.3 The suburb as a growth machine

As growth machines, cities present the most influential form, indicating how the coalitions of economic, social, political, and ranges of social actors jointly facilitate urban expansion (Logan and Molotch 1987). The fundamental idea of the urban growth machine is how a combination of private and public elites advance urban development via land-use intensification and local economic development (Jonas and Wilson 1999). Other influential contributions to urban politics and urban regime theory (Stone 2005) were inspired by growth machine theories. They outline the interrelations between business and government to address growth issues, namely who promotes local economic development. Compared with these two hypotheses, the growth machine theory suggests that a range of local entrepreneurs have to cooperate in order to boost and stimulate land use and development; urban regimes imply that urban developers and urban elites have become integral elements that facilitate local economic expansion by developing contemporary politics. Both of these principles support the idea that suburban growth is a response to consumer demand and preferences.

From this angle, the suburb, as a part of the metropolis, does not merely reflect capital accumulation and class reproduction (Shen and Wu 2012); suburban growth should also now be viewed as a response to demand. Suburban development turns into an investment strategy, which aims to increase economic development and social equity in both general and sector-specific terms. In more recent years, suburban development as an investment strategy involves various coalitions between different social actors, it still confirms that suburban space represents a special sort of commodity, namely the politics of the development process. Arguably, the politics of
the development process is very much developed on a shared understanding of key mechanisms and relationships to reflect the interdependence between the partners and their consensual approach to resolve joint problems and to achieve common goal (Qian and Wong 2012). Thus, the work of Phelps et al. (2006) is confirmed. They argued that “the politics of (post-) suburban retrofit is not simply a matter of local politics but centrally involves the mobilisation of political and administrative resources and imaginaries at multiple territorial scales” (ibid: 29). Furthermore, suburban growth should not be viewed as ‘spontaneous’ urban development (Shen and Wu 2013). The involved complex political contradictions and coalitions between different social sectors always distinguishes one locality from another (Jonas and Wilson 1999).

Arguably, the basis of suburban development was the intention of the builders. Various social sectors such as residents, real estate companies and financial institutions, state, local government and construction companies, each play a role in the forming of different types post-suburban settlements (Phelps et al. 2006).

### 2.3 Suburbanisation in post-socialist economies

Different from capitalism, socialist political systems have different influences on the suburbanisation, especially the significance of state-owned land ownership under the socialist economies. The socialist economy dedicated to the new settlement model of mankind is maintaining the status of the city and the centre in the traditional sense (Nuissl and Rink 2005). In focusing on the process of suburbanisation in socialist countries, a critical issue at hand is whether post-socialist local growth regimes and central planning strategies are akin to processes relevant to western understandings of processes of suburbanisation. Golubchikov and Phelps (2011, 430) argue that place-oriented coalitions are the key elements of a political economy of “place” stressing that ‘collective place-making’ and the ‘local growth regime’ play a dominant role in facilitating suburbanisation, rather than capital accumulation. Such strategies can be attributed to the institutional context of post-socialist urbanisation; it is often expressed that the promotion of suburban development by the state is inconsistent with the economic and political interests of local sectors and oligarchs. The institutional body behind the growth machine is hard to serve the suburban growth (Gentile and
Sjöberg 2010). Notably, the state-ownership of land dominates the growth of industrialisation in the socialist economics while business group plays a major role in western cities. Liberal capitalism accepts the growth of big cities and regards their development as an inevitable companion to success, but it also sees its own cities falling apart under the choice of diversified individualism (Nuissl and Rink 2005). The most significant differences are reflected in the housing shortages and limited living facilities in the process of suburbanisation. It is difficult to see the American type of urban-to-suburban migration because home relocation by personal choice is harder to achieve and thus much less prevalent. Meanwhile, an urban core with large job opportunities and employment advantages still represent the most important factors (Tammaru 2001). However, unlike with other socialist economics, the suburban growth in China is dominated by multiple levels of government, rather than local bourgeois alliances and the growth machine. As a result, suburban residential development in the post-socialist economy is dominated by state’s entrepreneurship which is distinct with the role of business group in the western cities (Wu and Phelps 2008).

2.3.1 Suburban residential development

Some evidence implies that suburban residential development did occur in socialist countries (Lovell 2003, Bernhardt 2005). For example, low cost mid-rise apartments were built in suburban areas with austere style and small room space. Meanwhile, governments and industrial sectors collaborated to develop new satellite towns, which reveal the feature of industrial-based and independent from the central cities. Moreover, holiday villas and homes for weekend stays were also found in Russia in the socialist era, but this residential development was built mainly for the upper classes. Although these holiday villas play an important role in demonstrating residents’ preferences, thereby reflecting their desire for better suburban lifestyles; in saying this, the relocation of industrial factories still plays a dominant role in suburban development in socialist countries.
After state socialism collapsed in 1989, structural changes affected the restructuring of urban layout. A direct result was the move from central planning to market-oriented economics. However, this does not imply a simply convergence on the western model of suburbanisation. Some signs of this can be found, namely, private property rights, housing markets, foreign investments, and individual residents’ preferences, even though structural shifts and market-based urban transformation still did not directly lead to a huge rise in suburban growth (Tammaru 2001). Many have thus asserted that “the market-based urban processes blend with the communist legacies and systemically unique processes attributable to the region’s past experience of socialism and central planning and the transition therefrom” (Borén and Gentile 2007, 97). The multiple and underlying driving forces of suburban expansion were regarded as the most significant symbols of post-socialist suburbanisation (Leetmaa and Tammaru 2007). On the one hand, a lack of market-based planning strategies after the collapse resulted in an intensive wave of private investment in new residential and commercial development projects in suburban areas; on the other hand, large numbers of rural-urban migrants increased the suburban population. Simultaneously, urban-suburban households that pursued a better living environment also increased the suburban population (Tammaru 2005). Overall the introduction of a market economy based on neoliberal theory dominates the urban transition in post-socialist cities (Sailer-Fliege 1999, Shen 2011, Shen and Wu 2013).

Along with widespread suburban residential development, the urban spatial pattern followed this change quickly in the metropolitan areas of post-socialist countries, especially with the conversion of agricultural land into modern residential areas; new housing construction in the suburbs is the most significant sign of such changes. Kährik and Tammaru (2008) analysed new settlements in the Tallin metropolitan area (Estonia) and found that people younger than 35, well-educated and earning considerably higher than average incomes are more willing to move to the suburbs. Families with children are also more willing to move to newly-built homes in the suburbs, since the institutional structure transformed.
2.3.2 Suburban newcomers in post-socialist countries

The structural policy frameworks of central government are forceful in creating spatial development under socialist political system (Wong et al. 2018). A study reveals that there are actually slightly more residents in suburban areas than in the urban core (Qian and Wong 2012). Evidence also indicates that people who live in the suburbs have a lower socio-economic status than residents of city centres (Tammaru 2001). Meanwhile, large numbers of blue-collar migrant workers are unable to enter the urban housing market due to administrative or other reasons. Conversely, individuals with a higher social status occupy the most attractive homes in the city, or build high-quality apartments or single houses for themselves in order to draw families from similar socio-economic backgrounds (Gentile and Tammaru 2006). However, despite this, two groups of migrants have moved to the suburbs, resulting in specific social transformations in post-socialist countries. The first group consists of lower-class families who seek cheaper homes outside the major cities (Szelenyi and Kostello 1996). The second group comprises people with higher social status who desire new properties in the suburbs, ones with better surrounding environments and accessible transportation links between the suburbs and the central city (Pichler-Milanovich 2001).

Compared with a relatively flat income distribution in socialist systems, the inception of differential income levels in post-socialist societies provided more opportunities for people to move to the suburbs. Entrepreneurs and higher-income professionals whose living standards increased rapidly began to seek other homes outside the confines of the city (Szelenyi and Kostello 1996). At the end of the socialist era, families from higher social classes found themselves in an advantageous position as the first group of suburban residents at the beginning of the transition period, and the market-oriented housing market accelerated trends of diverse types of suburban residential growth. The expanding wealth of households and improved access to mortgages also sped up residential development in the suburbs. Business groups and estate developers became dominant players in the growth of suburban environments. This resulted from new residential development, which has had numerous influences on residential divisions in the suburbs. Lower-income residents were already settled in the suburbs during the socialist era, and new residential homes appeared as separate settlements.
or as infill within existing residential areas. What is more, the education level of suburban residents increased, confirming that the most educated and wealthiest income groups took advantage of new housing developments; however, people with only a primary education are not willing to live in suburban zones (Brainerd 1998).

2.3.3 Market-led suburbanisation in metropolitan areas in post-socialist economies

Due to the lack of a well-established planning framework after the collapse of the socialist economies, cities in post-socialist economies witness a massive wave of market-led investment in new commercial and residential development in the urban peripheral area (Nuissl and Rink 2005). In the transition period, wealthy people move to the suburban area voluntarily and the majority lived in cheaper, older single-family homes or Soviet-type apartments that reflected social and economic waves during the transition. However, after major institutional transformations were completed and market structures were established, new housing development projects began to boom in the suburbs. Along with the influence of globalisation, residential growth in the suburbs began to show the trends similar to western residential suburbanisation. Suburbia became increasingly defined by relatively low density, and was driven by residential preferences. Particularly, employment opportunities emerged in many large cities and attracted migrants from rural area. The search for a better quality of life has also prompted an influx of migrants to large cities (Tammaru 2005, Hirt 2007).

Research suggests that affluent families that relocate from the urban core in search of higher quality living environments propel suburban residential growth. These new settlements are developed within the borders of formerly rural areas occupied by holiday villas, and shaped socio-spatial segregation with already existing villages in the surrounding region (Hirt 2007, Leetmaa and Tammaru 2007). Some studies maintain that concepts of western-style suburban living influenced middle-class families in post-socialist countries in search of better living environments (Bourne 1996, Hall 2002). However, different opinions are also extant. Firstly, compared with the socio-economic backgrounds of suburban residents in western countries, migrants in
post-communist countries have diverse backgrounds (Leetmaa and Tammaru 2007); therefore, the emergence of suburbanisation has different social compositions. Secondly, when analysing changes in residential structures in post-communist metropolitan areas, one should take into account the inherited socio-spatial context that new forms of subsidies and quality apartments in the cities attracted relatively higher social groups there (Kulu 2003). However, families living in unsubsidised homes that lacked modern facilities in the suburbs only had limited access to the urban housing market. This perspective implies an emerging pattern of segregation, in contrast to the situation in other western cities whereby poorer class lived in the suburbs, and part of the middle and higher income classes lived in the cities.

As housing stock was completely privatised during the beginning of the transition period, without housing subsidies, housing stock became rare in terms of quantity and quality. Consequently, single-family homes became the most valuable properties. Thus, the pattern of segregation in the suburbs was inherited from the communist mechanism (Leetmaa and Tammaru 2007). Meanwhile, in some post-socialist countries, most residents were forced to move to the suburbs since they were rural residents or farmers. Other suburban residents were mostly rural inhabitants that preferred to live in the suburbs, rather than in the city, thereby resisting urban sprawl to rural zones as urban construction eroded their properties. The less attractive urban lifestyle and urban problems such as high crime rates, crowded streets, and poor living conditions are also important factors that deter higher income classes from living in the city. This shows that recent trends of residential structural changes in suburban areas are related to the legacies of former periods, especially in the form of the urban spatial structure and population distribution. However, the new force of market-oriented land development has brought suburbs more diversity, creating more heterogeneous residential typologies, social classes, and preferences. Furthermore, the distribution of suburban settlements is facing the issue of segregation and disparity; thus, suburban residents represent diverse socio-economic backgrounds and different social compositions, and the emerging pattern of segregation reverses the processes that are typical in western countries. It is important to note that while most suburban residents move to the suburbs by personal choice, housing subsidies play an important role in post-socialist economies.
2.4 Suburbanisation in China

As the world’s emerging giant economy, China is also experiencing massive suburbanisation. Similar to the suburbanisation of the United States, massive suburbanisation in China not only involves massive land development, but also affects the living and lifestyle of a large population. However, the suburbs present a completely different spatial form from the United States. Wu and Phelps (2011) argue that China’s suburban growth has gone beyond commonly noted ‘suburbanisation’. The form of suburbs in China “is an instance of territorial development which does not fit neatly into the dichotomous distinction between city and suburb, but is closer to the sort of cities in functions” (ibid: 427). The suburban form is demonstrating a diverse urban spaces as the peripheral urban regions now organises the centre, entering a new era of post-suburban growth (Soja 2000). Meanwhile, in the global context, people now believe that suburbs are heterogeneous because the emergence of the new settlement spaces (Deng and Huang 2004, Feng and Zhou 2005, Gottdiener and Kephart 1995, Wu and Phelps, 2008). While, the emerging suburban settlements in China signals something more than just suburbanisation because both the terms of ‘suburbia’ and ‘post-suburbia’ neither do not conform to Chinese government jurisdictions (Wu and Phelps 2011), nor remain limits to their wider application despite their exploratory use to depict contemporary urbanisation in East Asia (Dick and Rimmer 1998) and in Europe (Bontje and Burdack 2005). Furthermore, the evidences of suburbanisation within the US literature show a spontaneous development process led by private residential, industrial and commercial development, which have significantly different from the strategic restructuring of a municipal region and its governance in China (Wu and Phelps 2011), and even from post-socialist growth machine of Central and Eastern European countries. In the post-socialist countries, the promotion of suburbanisation by the state is often inconsistent with the economic and political interests of the oligarchs which often leads to failure of suburban growth. So that the suburban growth is hardly driven by the political subjects behind the “growth machine”. In China, suburbanisation is carefully planned by state entrepreneurialism which aims to discover new growth poles as a means of further promoting the international economic role of the polycentric metropolitan economy.
Generally speaking, the political economy of China’s state entrepreneurialism are more comprehensive in terms of their mechanism of suburban governance, promoting suburban land development and strategies for supporting infrastructure. At the same time, the role of planning in China is not only to represent its meaning itself, but also to represent the political achievements of local government and the means to promote economic growth. The land market is becoming a major source of capital and investment (Shen 2016, Wu and Phelps 2011). Chinese suburbs are currently developing into a hybrid production of state initiative and market conditions. Studying on the emerging suburbanisation reveals that suburban growth in China is experiencing the past state-led industrialisation through urban expansion to a more mixed approaches of land development, which inevitably emphasise on the growing demand and consumption.

Since the launch of market-oriented reform, Chinese urban patterns have experienced tremendous changes over the past three decades when compared with cities in western countries; very compact Chinese cities tend to rapidly expand outward from their urban fringe. Many studies have subsequently shown that population movement and land-use transformation have restructured suburban areas and districts as new growth poles (Feng et al. 2008, Yue et al. 2010). Suburban growth in China signals a clean break with socialist urbanisation (Shen 2011). This is because urban sprawl in China is not driven by private sector growth, machine-style politics and conventional population relocation, but rather by the state’s entrepreneurialism in the land development process (Zhang 2000, Wu and Phelps 2008). Two main factors drive this process. On the one hand, land reforms and commodity housing development have restructured land use (Zhou and Ma 2000) and industrial relocation; on the other hand, fiscal decentralisation has stimulated local government in terms of developing large-scale urban projects in suburban areas (Deng and Huang 2004).

The population movement from urban to suburban regions represents a consequence, as well as an integral part of, the transformation of the Chinese urban economy from state-led industrialisation to a distinctly Chinese socialist market-oriented system. This strategy intends to let the economy “grow out of the central plan” (Naughton 1996). Despite the state’s strong role in shaping China’s urban landscape, foreign investors,
private entrepreneurs, and various domestic work units (danwei) have been important driving forces (Wu and Yeh 1999). Thus, the state and other actors have been involved in the transformation of urban China and suburbanisation in urban land use change, the infusion of foreign and domestic capital, urban deindustrialisation, the improvement of urban transport, and new housing development (Zhou and Ma 2000).

Due to heavy housing subsidies, urban housing stock has always suffered from short supply and poor maintenance, as residents do not own their dwellings in China. Housing congestion, high population density, and a decline housing quality represent chronic problems in the urban core. In order to improve residential quality and provide more housing, some older homes have been demolished and replaced by mid-rise apartments since 1978, leading to increased population density in urban areas (Zhu 1999).

Along with urban housing renewal and infrastructure development, municipal authorities in China have provided various types of housing subsidies - such as the relocation subsidy and reduced home prices in the suburbs - and have promoted the advantages of suburban living to encourage urban residents to move. Users of state land make use of their status as de facto owners of land. They do not actually own to seek “rents” and property developers are the actors who actively materialise gains from land through property development (Zhu 1999). Furthermore, local governments have their own stake in revenue generation from local growth in order to sustain and consolidate in the political realm. Moreover, local authorities have acquired suburban land for housing construction, whereas companies normally handle the allocation of housing units for their employees. Almost invariably, both privately funded and danwei-supported housing projects prefer to build new housing in the inner suburbs where land is cheaper. However, despite efforts to commercialise housing, the state continues to play a dominant role in the housing supply (Wu 1996, Wang and Murie 1999). Due to high costs, few individuals have been able to satisfy their housing needs by themselves; thus, very few urban residents have voluntarily moved to the suburbs. The majority of urban residents that have relocated are salaried workers, which are not economically well off individuals who prefer to remain in the city. On the other hand, most rural-urban migrants have opted for suburban districts where more rental
properties are available, and rent is cheaper than in urban districts (Ma and Xiang 1998).

The impact of housing construction on suburbanisation is clear from a 1996 survey of households that had been relocated to new homes in Beijing between 1990 and 1995 (Zhou and Logan 2008). On the one hand, the findings do not imply that the inner suburbs were experiencing significant tertiarisation, because most of the relocated heads of household were employed in cities; on the other hand, the results suggest that although industrial decentralisation from urban districts has caused a significant number of urban residents to move, it is not the dominant force stimulating Chinese suburbanisation. The existence of affordable housing and a subsidised form of commodity housing gave lower-income people and relocating workers a chance to consider moving to new properties in the suburbs with better environments, similar to richer people who had lived in the suburbs years earlier (Feng et al. 2008). The advantages of suburban housing are attractive to Chinese people as they can achieve similar living standards to those seen in American suburbs disseminated in popular culture. Many residents visit their second homes in the suburbs on the weekend (Li 2010), and some suburban houses are purchased by the nouveau rich for investment purposes, which also serve to stimulate the growth of the suburban housing market (Huang and Clark 2002).

2.4.1 New trends of suburbanisation in China

The recent trends of suburbanisation in China emphasise the market’s role in forming patterns of suburbanisation. Meanwhile, new driving forces have given the market an active role in suburban residential growth (Feng et al. 2008). Firstly, the government’s housing renewal program plays an important role in residential relocation to the suburbs. The program has encouraged more and more households to move to the suburbs as housing prices in urban environments have become exceptionally high, and also in part due to better environments in the suburbs (Huang and Clark 2002, Feng and Zhou 2005). Secondly, industries have relocated further away from the central core in order to obtain greater space and additional money from land sales.
Compared with previous government-led factory relocation, the new round of industrial relocation features market-oriented land reform. Thirdly, the process of suburbanisation contains the element of consumption, which can be more aptly called commercial suburbanisation. In addition, the improvement of infrastructure construction has facilitated greater accessibility from cities to suburban areas.

Along with the active process of market-oriented relocation, which has influenced residents’ preferences, the urban pattern has also seen the emergence of social polarisation (Feng and Zhou 2003). Households began to move to the suburbs and change their lifestyle due to the development of the private car market, as well as cheaper housing prices. Passive relocation of households is no longer the main source of suburbanisation. The new round of suburban growth is driven by the construction of suburban villas and affordable housing, rising private car ownership, the decentralisation of industry, and the expansion of large suburban shopping malls and retail parks (Feng et al. 2008). However, this trend of suburbanisation is not only propelled by market-oriented residential development; market-driven industrial and retail relocation also plays a significant role.

In the meantime, the service sector has become the dominant form of economic growth in the central city. It does not only provide a large number of job opportunities but also stimulates housing development in suburban zones where there is convenient access to central areas (Shen and Wu 2012). Subsequently, real estate development in these areas has become a new hot spot. That said, urban land growth has encroached upon agricultural land, and along with population growth, has resulted in a vague relationship between urban and peripheral regions. Ho and Lin (2004) found that the differentiation in land value between urban and rural zones is sufficiently profitable to convert land from agricultural to non-agricultural use. The differentiation in land value not only reinforces the role of land development as the major impetus of economic growth for local governments, but also increases real estate development in some well-planned new towns (Ding 2004, Ma and Xu 2010).

The decline of traditional retail shops in the central city leads to more foreign and private supermarkets and shopping malls rapidly appear in the suburbs. Furthermore,
the expansion of shopping centres and larger supermarkets stimulated surrounding areas’ housing growth and attracted more people to the suburbs. The development of shopping malls boosted suburban housing. As a result, there is no longer a concern about a lack of basic living facilities in suburbia and increased the pace of construction. The literature (Zhou and Ma 2000) claims that a lack of living and shopping facilities that previously infringed on people moving to the suburbs has been enhanced. The improvement of infrastructure, especially major roads since the 1990s has facilitated accessibility between the suburbs and the central core, thus promoting suburbanisation and the construction of villas and affordable housing in the suburbs. Due to the low levels of private ownership of cars, suburbanisation did not rise in China in the 1980s, but with the emergence of a large numbers of private cars after the 1990s, more and more people have chosen to live in the suburbs.

2.4.2 Heterogeneous forms of suburban residential development

Suburban communities are catering to the unique needs of different sub-groups of the suburban population (Baldassare 1992). In China, earlier residential growth in the suburbs was mainly spurred by industrial relocation and government-led development. In contrast, new residential expansion in the suburbs is defined according to the principle of minimising distances to and from factories. Land systems also provide residents with more possibilities to choose the locations of their homes; moreover, they serve to stimulate suburban development in both formal and informal ways (Deng and Huang 2004). Former large-scale residential relocation is not the overarching dominant trend, but recent residential suburbanisation plays an important role in forming Chinese suburbs in a fragmented and exclusive pattern (Feng et al. 2008).

With the emergence of the suburban living concept growing in Chinese people’s minds, residential preferences have changed. American style villas, villas near golf parks, and high-quality apartments in the suburbs cause many upper-middle class families to consider changing their old urban lifestyle. With the increased promotion of subsidised housing, ordinary workers can afford homes in the suburbs. Further, having larger second homes in the suburbs has become very popular in recent years.
Master-planned communities represent the new Chinese suburban way of life (Shen and Wu 2012), as well as the “re-enchantment of suburbia” for the prosperous upper-middle classes (Knox 2008). Along with the development of suburban diversity, the issue of residential disparity has also emerged in Chinese suburbs. Li and Wu (2006) point out that socio-economic status is the main determinant of residential segregation. Huang (2006) argues that master-planned communities, as the popular form of settlement in the suburbs, reflect the social control long embedded in Chinese society, emphasising the prevalence of gates as a symbol of the good life. Well-designed landscapes and facilities brought luxury and a pleasing aesthetic atmosphere to indicate a higher social status and identity (Huang 2005, Pow and Kong 2007). Packaging a range of amenities and services in an aesthetically pleasing environment, master-planned communities represent a cultural process of everyday life. Such landscapes also express and cultivate a privileged middle-class taste and lifestyle to appeal to affluent residents, and reflect Chinese neoliberal urbanisation as primarily “a mixture of market logic and state authority logic” (He and Wu 2009, 284). Given this, it is fair to say that the explosion of master-planned communities drives suburban housing consumption, as well as urban growth.

A new trend has seen clusters of gated communities packaged into self-contained small towns in the recent process of suburban residential development; however, this vision of a town is exclusively targeted towards high-end social status groups. Based on evidence from Thames Town in Shanghai, Wu (2010) found that although a master-planned suburban town is designed to be accessible to the public, communities are gated. Furthermore, there is little attempt to foster social interaction in such communities, as most residents are from higher social classes and are more concerned with privacy and seclusion of their living spaces, rather than social interaction (Kirby 2008, Pow 2009). Moreover, western-architectural style communities with indigenous landscape elements are more popular for the nouveau rich and easier to open to the upper-class housing market in China (Wu 2004).

Another symbol of suburban diversity in the country can be seen in the high-quality commodity housing growth in the suburbs promoted by real estate developers (Feng
“Marketisation” and “aestheticism” are two interactional processes, along with suburban residential expansion (Wu 2004). The increasing affluent class seeks western commodity housing to satisfy consumption desires and personal interests. Meanwhile, this feature is a significant identity marker that serves to encourage luxury and the upper housing market, as the styles are completely different from older uniform homes, and represent the civilised modernity of living (Pow 2009). Thus, the suburban housing market aims to provide improved housing conditions and elements of luxury and pleasure for these wealthy classes, as the consumers of the upper suburban housing market already own urban properties.

The market position of suburban residential developments is related to housing reform, as it is when rich families move to the suburbs. Then, apartments left in the city are made available for poor/working people. Conversely, gated communities easily promote the establishment of homeowners’ associations, which are not only a self-organised preference but also a requirement of municipalities. Despite forming neighbourhood attachments, the most significant results of these associations are reduced public expenses, whereby the construction of public services are replaced by private investment in suburban development (McKenzie 2005). Developers are thus creating more diverse community styles to attract and satisfy different consumer preferences. From this angle, upper level gated communities seem to present a trend of further suburban residential growth. Hence, suburban communities are becoming more diverse in terms of built forms.

2.4.3 The diversified social backgrounds of suburban residents

Research shows that suburban residents are diverse in China; with young, affluent families living with local natives and rural migrants together in one suburban area (Fleischer 2010). This study also points out that housing and relative consumption intensify residential differentiation and reflects a social practice of distinguishing certain homebuyers from others. Notwithstanding this diversity, housing types have subsequently become an identity that signals a lifestyle formation and this process of social differentiation has led to widening disparities in Chinese society (Fleischer
The places in which suburban residents choose to live do not simply follow the lure of the market, the production of spaces (such as a neighbourhood’s social status), the qualities of a community, and surrounding facilities are also important aspects (Fleischer 2010). Rich families move into high-end, single-family homes in the suburban gated communities as they pursue privacy, larger homes, beautiful backyards, aesthetic designs, class identities, and social status (Pow 2009, Wu 2010). Other families – especially young and better-off ones – are also willing to move to the suburbs. Yet despite the quality of housing and facilities in these communities, they also need to consider housing prices and distance to the urban centre.

Wu (2006, 224) describes suburbs as a “juxtaposition of rural villages, resettlement housing for central-city residents, migrant communities and commodity housing projects”. In China, the outcome has included fine or medium-grained social mixing (Huang 2005). The inner suburbs became migrants’ settlements due to more affordable housing projects and low rent prices (Feng and Zhou 2005). Rural migrants are largely concentrated in low-priced private rental homes in the suburbs or urban environments (Wang et al. 2010). The concentration of high-income residents, ordinary workers, poor migrants, and existing farmers in the suburbs changed the social composition in the new round of suburbanisation. Hence, Chinese suburbs have become more heterogeneous.

### 2.4.4 New towns as a form of suburban development

State-led new town projects have caused massive sprawl in many Chinese cities, resulting in the suburban form becoming more heterogeneous. For example, housing typologies in new towns range from low-density villas to high-rise apartments. Despite market demand, the combination of villas and high-density apartments also satisfies the terms of planning regarding plot ratio requirements. The massive explosion of suburban development, along with cheaper housing prices, drew large numbers of households to consider the suburbs as their residential location (Wang and Li 2004, Zhou and Logan 2008), leading large numbers of new groups to emerge there. New towns have been considered sites for accommodating China’s population in the
twenty-first century (Wang et al. 2010). Moreover, the introduction of land prices and a real estate market led to residential differentiation in previously largely homogenous communities (Fleischer 2007). The growing market-oriented real estate not only changes the image of the Chinese suburb but also produces alternative residential places for potential urban homebuyers.

Empirical studies have already indicated that new town development in China is not exclusive but is also associated with suburbanisation that contains the frontier design concept, with a strong, ambitious, goal-oriented government (Feng and Zhou 2005, Wu and Phelps 2008, Zhou and Logan 2008, Wang et al. 2010, Shen 2011). Evidence shows that new towns in China not only contain spaces for residences, businesses, and jobs but are also planned as urban economic growth poles. Beyond middle-class and higher social level families, waves of migration from surrounding rural areas and mobile people from central zones are also part of the population structure. Compared to western countries, new town developments in China display striking dimensions in terms of scale and influence changes in the urban pattern, as well as accelerating suburban growth and the process of urbanisation. However, similar to what happened in western countries, new town developments in China often spring up around megacities in order to promote urban expansion in suburban areas. The goal of building new towns remains strong in China today in terms of achieving more diversified urban functions and growth. There are several reasons for this.

Firstly, global forces and regional restructuring have had an impact on the emergence of new economic centres and led to economic decline in some cities. Many Chinese cities have invested in high-profile projects in order to respond to a series of global and regional urban competitions. Since the cost of developing land in the suburbs is much lower than in central areas, many large-scale projects, including industrial and residential developments invest heavily in peripheral zones (Ding 2004).

Secondly, new town developments demonstrate diverse forms of local economic transitions, as well as local conditions in terms of forming social mixes and accumulating capital (Ma and Cui 2002). Globalisation, nationalisation, and regionalisation influences the restructuring of urban economics (Dick and Rimmer...
Furthermore, new towns have come to be utilised to support inner-city economic competitiveness and display the various elements of edge cities, new industrial districts, and other types of newly emerging economic, polycentric structures that alter the suburban economic pattern.

Thirdly, new town developments are the most efficient ways for local governments to promote high-profile investments. The big advantage of urban economic expansion is that the population and the economy concentrates in new towns. Such advanced urban financial growth enhances resources, causing populations to keep moving towards the suburbs. The fast development of new towns encourages the restructuring of society, compounded by multiple driving forces and mechanisms of governance (Ekers et al. 2012). Evidence suggests that new town projects differ from the process of traditional expansion in Chinese cities, which demonstrates a distinct mode of development and rules on growth.

Populations that centralise in peripheral areas create a new polycentric spatial structure that leads some scholars to focus on the trend of re-concentration on the Chinese metropolitan scale after decentralisation. Some research shows that in areas such as Beijing, Shanghai, Nanjing, and Guangzhou, Chinese cities have experienced rapid polycentric urban development (Wu and Zhang 2007, Qian and Wong 2012, Wong et al. 2018). Evidence also reveals that the accelerated rate of urban expansion is due to the combined forces of government planning, globalisation, and land markets (Yue et al. 2010). Wu and Phelps (2008) distinguish the extent of China’s suburban growth as “post-suburban” development. Meanwhile, China’s suburban growth also shows that China’s mass suburbanisation is accompanied by a post-suburban element, but the break between both of them is not clear. In addition, building new towns furthers the circulation of urban land and the growth of land set aside for construction. Thus, suburbs develop gradually and are built into sub-cities.
2.5 Discussion

Many studies emphasise that the market-driven approaches indicate China’s embrace of neoliberalism (Harvey 2005), and much has been written about the transferring of use rights of state-owned land to private developers (Zhou and Ma 2000, Deng and Huang 2004, He and Wu 2009, Shen and Wu 2013). In this chapter, the distinctive features of new town construction in China, which exists on a massive scale but also leads to the creation of heterogeneous spaces in the suburbs are revealed. Existing studies have revealed the features of suburbanisation occurring after industrialisation in North America (Bourne 1996, Harris and Lewis 2001). Western theories on suburbanisation reveal that the middle class moved to the suburbs to escape urban decline and urban illness in inner-city areas (Fishman 1987). The notion of “post-suburbia” further suggests a process in the post-industrial economy that led to the densification of suburbs and an increase of service activities there (Phelps et al. 2010).

The development of suburbs is driven not only by residential preference, as shown in earlier suburbanization literature, but also by economic restructuring and changing modes of governance (Ekers et al. 2012, Hamel and Keil 2015) – for example, emerging private governance in suburban gated communities and a more neoliberal approach to development. In contrast, the process of Chinese suburbanisation is closely associated with industrialisation and urbanisation. Suburbs in the context of rapid urbanisation provide not only a new living environment developed by the private housing market but also an opportunity for land development and investment (Shen and Wu 2016). The new middle class is moving to suburbs for a better living environment, especially for better housing quality, rather than escaping from urban decline. Their purchase of suburban housing is part of their social class formation processes (Zhang 2012). But they also buy suburban housing as a second property for investment purpose. A significant number of residents in inner urban areas have been relocated to the suburbs because of demolition and renewal. In addition, as Chinese suburban development is an integral process of industrialisation, the development of suburban industries has attracted an influx of migrants from other rural areas. As a result, Chinese suburban development is also a process of urbanisation of the rural areas. This study thus helps enrich the understanding of suburbanisation.
and post-suburbia development, and reveal heterogeneous suburban landscapes during this massive urbanisation process as well as the interwoven forces of state, market, and society, with different motivations, constraints, and preferences. The Chinese suburb developed under massive suburbanisation is heterogeneous because suburban residents are from different places, with different motivations, and the process operates through different governance modes and development approaches.

Private-led mechanism of suburban development is not applicable to the Chinese situation as suburbs appear to have no local resonance at all in China (Harris 2010). Findings imply that intra-urban residential relocation and movement are not based solely on personal preferences; while they represent the dominant source of suburbanisation in the United States, in China, they have mainly been driven by government planning since the 1980s (Zhou 1997, Wang and Zhou 1999). The initial phases of Chinese suburbanisation were spurred by the construction of large-scale, state-led industrialisation in the suburbs, in addition to the large proportion of the population that relocated, followed by factory relocation to the suburbs. Compared to the locations of suburban settlements in the United States – which are based on preferences – the government decides on the sites of suburban residences in China. They are mostly placed in inner suburban areas as part of project-specific land developments and managed through administrative allocations that evolved around industrial projects and former existing village settlements (Wu 2007). Mixed uses of industrial and residential land in the peripheral zones of central cities, as well as two sides of highways, serve to minimise construction costs and save land; hence, the building forms of suburban homes are similar to existing residential forms in central cities. The inhabitants mostly work in nearby factories or comprise a passively relocated population. They are nearly always considered blue-collar, working class families, which is in stark contrast to the U.S. concept of suburban residents, who are usually middle-class families. While Feng and Zhou (2003) argue that China’s emerging suburban population is growing, which shows that the inner suburb has become the main region attracting the urban population. Meanwhile, the dominant source of population centralisation in the suburbs is comprised of lower and working-class groups. Compared to residential suburbanisation in the United States, which involves individual preferences, Chinese suburbanisation involves the features of
government-led land development. Meanwhile, suburbs are well-planned as new towns, which become places with good environmental quality for residential and commercial development, combined with improved living facilities and services. Clusters of suburban residential settlements are often well-planned and evolve into self-sustained towns. Therefore, under strong intervention of planning approaches and governance, suburban residential settlements in China cannot turn into the real communities, as their inhabitants all have different social backgrounds (Wu 2010).

In the context of suburbanisation in the United States, the unique spatial pattern and socio-economic composition of the suburbs have produced a fixed way of suburban life. The suburban life depicted in this context is a single-family home with a low population density and access to open spaces, mainly occupied by young middle-class couples. In addition, the suburbs are considered to be based on personal housing preferences and choices. Different from the habits and preferences of urban living, the suburban lifestyle is to show rural values. While, the suburbs depicted in the Chinese context are a continuation of urban life, the suburbanisation is presented as the form of new town. The definition of urbanism as a way of life is not enough to capture the social dynamics of the suburbs (Gans 1962, Shen and Wu 2012). This is because in addition to social relationships, suburban lifestyle is also related to family life, consumption and political ideology (Cox 2017). Such a discussion applies not only to western suburban literature, but is also applicable to suburban study in China.

Because suburban residents in the United States experience suburban living with shared values and lifestyles, suburban residential development has been well documented in Western studies. At the same time, their suburban life is in sharp contrast with urban life. As the urban lifestyle is characterised by intensive, diverse and dependent public transportation. However, these modes of lifestyle and shared values are formed under the liberal social system. Meanwhile, such modes have institutional and social differences with China’s powerful jurisdiction. Therefore, both the form of living and the way of suburban life in China are worth exploring. Driven by the demand of economic growth and planning strategy, the suburban residential projects in China are usually moderate through the expansion of high-rises mixed with low-density villas and mid-rise apartments. The forms of mid-rise apartments and
residential densities withdraw slowly from the urban core (Wang and Zhou 1999). Meanwhile, in contrast to western suburbanisation, the diverse forms of Chinese suburbanisation comprise one distinctive feature. The emerging suburban pattern is related to the different stages of suburbanisation rather than caused by market forces (Wu 2007). These characteristics seem similar to those of new suburbanisation in the United States (Garreau 1991, Knox 1991, Stanback 1991).

2.6 Conclusion

As the world’s two major economies, the United States and China have experienced massive suburbanisation and two nations present different forms of suburban residential development. The difference comes not only from their institutional and social factors, but also comes from the differences in growth mechanisms. The traditional image of suburban living has been explored for a long time in western nations. Traditional suburban residential forms may continue to play their influencing the development of peripheral area, while finding different evidences calling for a revision of the traditional understanding of the suburban studies. The new suburban research perspective should not be merely a traditional American suburb as an example, but putting suburban diversity into global context as the norm, studying the commonalities and differences between specific types and development process. However, existing research analyses the emerging suburban diversity as a feature of post-suburbia. But the analysis in the context of post-suburbia is featured by many aspects of the traditional US context, and their limitations not only remain to wider implications to the describe emerging suburban diversity, but also remain limits to look at dynamics in forming current forms and patterns. Along with institutional transformations, the compact form of Chinese cities has changed dramatically through market-oriented and government-led suburban expansion. The experiences of suburban residential development in the United States, as well as Central and Eastern European countries, serve as examples against which to examine residential diversity in China, emphasising that suburban growth there follows the idea of heterogeneous development. However, despite the similarities of the form and the development process, suburban residents have different social backgrounds, as well as varying
motivations to move to the suburbs. Importantly, passively relocated households are no longer the dominant source of suburbanisation; the growing role of market forces has had a greater impact than before on residential expansion. Notwithstanding, many studies have concentrated on governance and form with regard to the new round of Chinese suburbanisation. Yet there is a lack of research on residential diversity, especially given the emerging features of mixed urban functions and the job-housing balance, which differ from the previous processes of industrialised relocation, as well as places for accommodating relocated households and industrial decentralisation.

In order to fill the gap in knowledge on suburban residential diversity, and to explore the forms of Chinese suburbs in the broader “post-suburbia” research agenda, a theoretical framework is established in this chapter. The main purpose of this analysis is to bridge the link between the current diversity of suburban residential growth and the socio-cultural and spatial reconfigurations in China. This study also aims to investigate how different suburban residential projects are formed through coalitions of market-driven, government-led, and other dominant factors involved. This study provides three perspectives to explore the underlining heterogeneity of suburban residential expansion.

Firstly, suburbs are not just for the suburban culture at large, but offer specific incentives for residents to mix (Harris and Larkham 2003). Studies in China indicate that urban elites in the Global North generally relocate to the suburbs voluntarily. However, the inhabitants of Chinese suburbs also include the rural population, low-income migrants, involuntary relocated and middle-class people, and urban elites. According to Harris (2010), suburbs are diverse, and it is necessary to consider the backgrounds, goals, and experiences of the residents, as well as those who are involved in the meaning of suburban living. Secondly, the suburban form in America is nature while that of China is incipient (Zhou and Ma 2000). Suburban growth in China not only involves one type of land use (i.e. self-contained) but also the process of transforming rural areas into cities, especially in terms of how the diversity of suburban living includes one’s home and job. The inter-relations among the various types of suburban residential settlements should be highlighted in China’s context. Third, from a global angle, the suburbs reflect personal choices, but this assumption
needs to be rethought in the context of China’s new trend of suburban development (Feng et al. 2008), particularly the market’s role, which is increasing in suburban residential growth. As Chinese suburbs have become spaces of consumption (Shen 2011), multiple driving forces have rendered them heterogonous, both in terms of form and their residents.

This chapter has reviewed Chinese suburbanisation dynamics and population movement. However, few studies have examined Chinese suburban residential forms; the diversity of these spatial forms has not been fully considered. Although some research reveals the diversity of suburban forms, it does not cover residents’ social lives. In addition, this study suggests that the multiple meanings of the term ‘post-suburbia’ may not be fully applicable to China. However, this is by no means an opposition to the current residential suburbs. Finally, which has been less discussed so far, the study of suburban residential diversification should enrich the theory of suburban governance and mechanisms by unpacking the different types of spaces on the scale of residence.
Chapter Three: Research framework and methodology

3.1 Research framework

Based on the literature of existing suburban theories, a research framework is developed to reveal the growth of suburban residential forms in China. Fundamentally, following Fishman (1987), Harris (2010), and Zhou and Logan (2008), this study adopts the theory of suburban heterogeneity to understand the production of new suburban spaces. The emergence of new suburban nodes in China involves mixed motives and preferences. Mixed motives and preferences comprise a particular kind of spatial organisation that refers to combining the private and public sectors to promote urban land development via land-use intensification and local economic development (Jonas and Wilson 1999). Urban politics and urban regime theory have been adopted to facilitate suburban growth in China (Stone 2005). Shen and Wu (2012) stress that suburban growth not only reflects capital accumulation and class reproduction but also responds to demand. Accordingly, it is necessary to examine the structural factors and driving mechanisms that gave rise to the new pattern of suburban growth in China.

This study attempts to reveal the important role of residents’ preferences, socio-economic attributes, activities, reasons for moving, and housing choices in determining the pattern of suburban residential growth in China. In addition, this study explores the extent to which the government and market dominate the forms that suburbs take. Local actors and institutions (i.e. the government, the private sector, and residents) socially shape Chinese suburbs. This study aims to reveal how these groups cooperate with each other to boost suburbanisation in China. The driving forces, relationships, and processes are analysed to enrich the theory of the urban growth machine and growth coalitions. In the post-socialist regime, suburban residential expansion in China presented distinctive features. The political-economic
and socio-cultural context also need to be intensified in order to capture how suburban residential growth in China is organised. The important role of residents themselves in changing the suburban residential spatial pattern is another key point. Residential preferences and reasons for moving contributed to mass suburbanisation in the western context (Fishman 1987, Harris 2010). Some studies underscore that to choose a house means to choose a lifestyle (Fleischer 2007, Wang et al. 2010). Nevertheless, this conclusion might differ when applying to the Chinese case. Moving to the suburbs and choosing a typical home represents a particular lifestyle that needs to be empirically investigated.

Chinese suburbs contain different types of suburban settlements and residents due to the coalitions of state-led population relocation and market-oriented land development (Feng and Zhou 2005). By extending the existing scenario of suburbanisation in China, this study aims at offering better understanding of new suburbia in the recent development. By exploring the dynamics, processes, residential preferences of suburban growth in Nanjing, the theoretical generalisation of modalities and mechanism of suburban governance and the relationships between typologies of suburban residential spaces has been enriched. This study used three major types of research methods: qualitative interviews, a quantitative survey, and statistical data analysis.

### 3.1.1 Research questions and hypothesis

Although, suburban residential development is a broader concept, the exploration of heterogeneity of suburban residential types lies at the heart of this study. By exploring the typologies of suburban settlements, the study attempts to bridge the link between the residential forms and dynamics to enrich the new suburbia studies. The literature review chapter demonstrates that the previous studies on Chinese cases have made empirical and theatrical contributions on exploring the dynamics of suburbanization, while the findings without looking at moving motivations of residents and the residential preferences in forming the current suburban living forms. Meanwhile, various of the
phenomenal urban expansion and the emergence of new suburban settlements have been widely noted (Deng and Huang 2004, Lin 2004, Feng and Zhou 2005, Wu and Phelps 2008) and signaling something more than just massive suburbia (Wu and Phelps 2011).

Therefore, the key research question is: What are the patterns of suburban residential areas in China, and how do these types form through Chinese suburbanisation? More specifically, the following questions are examined:

1. What are the characters of suburban development in China? What is the role of the government and the market in forming different types of suburban residences? What are the functions of entrepreneurial arms of state in the suburban development in China? And how is suburban governance formed?

   Hypothesis: Suburban development in China is a response to spontaneous urban development and for sustaining economic growth. The role of government and market promote suburban housing consumption and demand, transferring suburban land market to a major source of capital and investment. Leading by land-centered economic model, the functions of entrepreneurial arms of suburban government is to encourage a variety of actors to create diverse suburban spaces for improving urbanization.

2. What are the suburban residential forms in China? What factors form the current suburban residential pattern? How are the suburban residential forms reflected in the land development process? And why China's suburbanisation residential development shows the characteristics of heterogeneity?

   Hypothesis: Both suburban residential patterns and population compositions are more diverse than what we imagined. The process of suburban residential development in China is reflected in the transformation from government-led to the model of market-oriented land development. The diversity of spatial form of suburban residences various with market demand, residential preferences
and consumptions. Suburban residential forms in China has distinctive features, which refer to socio-economic and institutional context.

3. What role do residential preferences play in Chinese suburban development? What is the spatial pattern of the population composition in the suburbs of China? And what is the theoretical and empirical contributions of studying typologies of China’s suburban residential spaces?

Hypothesis: Different residential preferences determine the growth of diversity. The spatial changes of suburban patterns can be viewed as shifts in residential preferences and consumption, as well as in consumption. The diversity of a suburban population composition varies with the distance from city centre and income level of residential neighborhood. Thus, the theoretical generalisation of modalities and mechanism of suburban governance has to be enriched by unpacking the typologies of suburban residential spaces at much finer scale.

3.1.2 Reasons for case study

In China, there are thousands of industrial parks and Economic and Technological Development Zone were originally planned as the industrial-based space on the urban peripheral area. According to the statistics report from China National Bureau of Statistics, by 2015 there are 1,176 provincial industrial parks in China. These industrial parks are concentrated in eastern China’s cities, especially in Jiangsu, Shanghai, Zhejiang, Shandong, Guangdong and other economically developed cities and provinces. Jiangning industrial park is one of them. In the past 40 years of China’s reform and opening up, the monotonic industrial space of industrial park rapidly emerged urban pattern and expanded as diverse urban pattern along with the growth of polycentric development. Many studies put great efforts on analyzing the mega cities in China, like Shanghai and Beijing. While the dynamics and stories behind suburban residential development in the second-tier Chinese cities, like Nanjing are lack of analysis.
Meanwhile, not only as a Second-tier city in China, Nanjing is also the capital of Jiangsu Province and one of the most developed cities in China. The entrepreneurship of Nanjing municipal government is prominent and at the one of leading edge of Chinese reform. It is a central hub of the Yangtze River Delta Economic Region, and occupies an important position next to Shanghai. The urbanisation rate of Nanjing is 77%, far higher than the national average. Therefore, it is necessary to understand the process of suburbanisation in Nanjing, because it represents the status of other rising metropolises in China.

Urban development in Nanjing, mainly concentrated within the old city wall of the Ming Dynasty revealing a former monocentric urban strategy of urbanisation. Before 1979, the economic radiation of urban area in Nanjing was weak, leading industrial development of peripheral areas to stagnate at a low level. However, small business, labour-intensive production comprised the main body of the economic structure in the peripheral area. Local manufacturers seized the chance to upgrade their family workshops, and started to accumulate initial capital. Handicraft workshops and small private enterprises were widely emerged, forming an initial and manufactural oriented economic structure. Since 1992, the Nanjing local government has proposed a strategy to integrate an industrial park into Jiangning Township, which has resulted in the model of the state-own enterprise playing a primary role in accelerating urbanisation.

As early as 2000, Nanjing municipal government launched a range of institutional changes to promote suburban new town development. The implicational change has led to the transformation of 15 industrial parks in Nanjing, especially the development of urban supporting functions. Among the 15 industrial parks, Jiangning is the earliest one with the largest population and land area (see Figure 3.1). Thus, it was one of the earliest areas in Nanjing which emerged suburban features and contained the large housing demands and supplies. Jiangning was developed as the experimental site for Nanjing’s new town project from the outset and, over the last 15 years, it has been the fastest-growing district among all the districts in Jiangsu Province. Thus, Nanjing municipal government is now going to build another new district, known as Jiangbei New District and three new towns by following a similar developing mode of Jiangning
in the next 10 years. Furthermore, Jiangning is the highest per capita living area in all of Nanjing’s districts, which applies to the classical concept of suburban living in the western context. However, the existing residential projects in Jiangning District demonstrate the different stages of Chinese suburbanisation, with diverse suburban patterns and forms, which are not applicable to the definition of suburban settlements in the previous western studies. However, the diverse forms of residential projects in Jiangning are widely seen in other Chinese suburbs, for example in Shanghai, Beijing and Dalian (Zhou and Ma 2000, Wang et al. 2010, Wu and Phelps 2011, Shen and Wu 2012). Therefore, due to its typicality, Jiangning District of Nanjing is a fairly representative case to choose to illustrate the process of contemporary suburbanization in China.

Figure 3.1 The Location of Jiangning District and Jiangning New Town in Nanjing
3.2 Methodology

3.2.1 Secondary data sources

Secondary data is an important source of analysis when attempting to gain an understanding of suburban development in Nanjing and suburban residential growth in Jiangning District. The first step in this study was to obtain data about Nanjing’s suburban development and to revise the initial hypotheses. However, in this study, it is difficult to get official data at district level. Due to the high confidentiality of the population census by the Jiangning District Government and the Jiangning District Planning Bureau, the available data obtained from population census is very rough and cannot be used for street-level analysis. While, the data include various annual statistics for population and economic structure, fiscal revenue and expenditure, an index of land typologies, and a number of educational and medical institutions are rare and valuable. As statistically valuable official data, they help the study provide a data-level explanation of the reasons for the development of suburban residential development in Jiangning District. The list of materials below: Nanjing Statistical Yearbook, 2013 (Source: Nanjing Statistical Bureau, 2003 - 2013). Nanjing Statistical Bureau Population Census of Jiangning District, 2003 - 2013 (Source: Nanjing Jiangning Planning Bureau). As a supplement, the Almanacs of Nanjing and Jiangning District (Editorial Board of Nanjing General History, 2001; Editorial Board of Nanjing Jiangning Almanac, 2007) are useful information on the history of Nanjing and Jiangning.

Other official publications including Urban Planning History of Nanjing (China Habitat Environmental Science Book Series, 2006), Urban Planning Administration Practices in Nanjing (Nanjing Urban Planning Bureau, 2013) contain information about important planning changes and changes to the urban territory. The maps and classified data are also included to see the urban expansion in Nanjing during different periods.

Policy documents, planning and design documents, internal reports as well as promotional materials from Nanjing Urban Planning Bureau and Jiangning Urban Planning Bureau and Department of Urban Planning and Architecture, Nanjing
University are widely used to provide detailed information about institutional information, planning strategies and schemes and their development processes. Relevant local media reports and academic research documented important urban development events in Jiangning and related living changes in Nanjing. They not only include the facts and insights to indicate the process of real estate market both in Nanjing and Jiangning, but also a very useful way to understand the social and housing problems caused by the urban expansion and suburbanisation of Nanjing.

3.2.2 Semi-structured interviews

The second step was to conduct interviews with key government officials, planners, developers, residents, real estate agents, university administrators, and staffs from street offices and residents’ committees. This method was conducted in order to collect qualitative material. Interviews were carried out with developers regarding the social backgrounds of potential and existing homebuyers, as well as with planners, designers, and government officials about designing strategies for specific projects. For example, in China, the planners actually receive the instructions from multi-level administrations when making the master-plan. Interviewing with planners is very meaningful to understand the suburban land development process. It is also meaningful to capture the attempts and aims of decision-makers in creating and developing suburban spaces. Furthermore, the aim was to identify different residential types as well, then select specific one from each type and investigate how suburban residences were developed. By establishing semi-structured interview, this thesis seeks to explore what factors drove them to purchase or live in newly built communities, and to link the relationship between personal demands and consumption to the production of spatial patterns and dynamics.

There were forty interviewees in total including individuals, groups, and organization during the field trip. Each interview lasted about one hour. They comprised six government officials, four planners and architects, six developers, four estate agents, four staff members from street office and residents’ committees, four university
administrators, and twelve residents from different areas and social backgrounds (for details, see Appendix 2).

3.2.3 Questionnaire survey

The survey was designed to find out the demographic and socio-economic profiles of suburban residents in Jiangning District, their reasons for moving, residential mobility, and their likelihood of choosing specific housing types. The questionnaire was organised into three parts: (1) household demographic and socio-economic attributes, (2) housing conditions and residential mobility, and (3) the daily lives of suburban residents. The questions asked about their marital status, monthly family income, type of hukou, educational attainment, employment, housing and rental prices, sources of funding, use of the house, reasons for moving to Jiangning District, commuting time and methods, number and types of vehicles they own, and personal preferences.

The survey selected three main sub-districts where urban and property developments are most concentrated: Dongshan, Muling, and Lukou. (Note: At present, these three administrative areas are governed at street level in Jiangning due to administrative adjustment since 2000. For better translating Chinese-designated administrative area into English, ‘sub-district’ is chosen in this study as the general term, rather than ‘county’ in British English.) According to field observations and the recommendations of the Jiangning Urban Planning Bureau, the property development and suburban residential projects were mostly concentrated in these three sub-districts. Although, the three different sub-districts have similar suburban residential projects, the dominant residential types were not homogeneous. This study attempted to analyse the formal residential types and the dynamics of their developments only, the informal settlement are not included in this study. Furthermore, based on the on-site observation and interviews with local planning authority, the informal settlements were demolished in the three main sub-districts before the beginning of this study. Therefore, the survey attempted to test whether the three sub-districts contains diverse housing types and residents or not.
Because local neighborhood committees cannot contribute household data within their jurisdiction, the questionnaire cannot be distributed by random sampling method. Therefore, the questionnaires of this study were filled out by the representative households of three different types of housing, who were recommended by street committees. The survey initially set the sample size to 100 for each sub-district. All residential forms in each sub-district were divided into three types, such as villa-style housing, high-rise apartment, middle-rise apartment. According to the suggestions of the staffs from local planning bureau, 20 communities within these three sub-districts welcomed to be sampled as research cases. Therefore, the questionnaires were distributed at fixed numbers within 20 communities.

3.3 Data analysis

3.3.1 Qualitative analysis

Based on the types of qualitative data sources, the methods used for qualitative analysis comprise two categories. The first approach is document analysis. Policy documents were widely used to interpret the rationale behind suburban development, the values that are promoted, how different actors mediated policies, and how policies affect various actors. This was supplemented by an in-depth examination of other sources of secondary data such as promotional materials and media reports.

In the rest of this thesis, interviews will be referred to according to their codes: G for Government officials, D for Developers, P for Planners and architects, E for Estate agents, C for Residents’ Committee and Street offices’ staffs, U for University administrators, R_M, R_D, R_L for Residents of Muling, Dongshan and Lukou respectively. The second technique is conversation analysis. Notes of interviews were used as the major materials for analysis. All interviews were categorised based on the interviewees’ characteristics. In the rest of this thesis, interviews will be referred to according to their identities in this study. The categorise includes government officials, real estate developers, planners and design consultants, estate agents, community management staff, university administrators, and residents. Interviews with those directly involved in suburban residential growth were linked and compared to trace the
development process. Interviews with residents were used to establish common factors with regard to residential preferences and housing choices, as well as dominant attitudes.

3.3.2 Quantitative analysis

Quantitative analysis was conducted for both macro statistical data and micro survey data. Macro statistical data, such as that taken from statistical yearbooks and census records, were used to reveal the changing spatial structure of Nanjing. Every question and relevant option in the micro survey data was coded and recorded into SPSS 23.0. Various statistical methods were used to analyse the dataset, including analysis of variance (ANOVA), Pearson’s chi-square test, and multinominal logistic regression analysis. More details are provided in Chapter 6.

3.4 Summary

This chapter explains the research framework. An examination of the dynamics of China’s current suburban growth involves three aspects: the dynamics of diverse types of suburban residential settlements, how the compositions of suburban settlements are produced, and how residents transform their suburbs. This framework not only provides an understanding of suburban residential development in China but also a platform for comparative analysis to indicate the trends of suburban growth. The study builds on its empirical findings on a wide variety of secondary and first-hand data sources. Secondary data include comprehensive information on Nanjing’s suburban settlements and the newest statistical details on current planning and reports. First-hand data were collected by means of semi-structured interviews and the survey, both of which are particularly valuable considering that official micro-level data is rarely available in China. Qualitative and quantitative methods were applied to these data to generate insights with regard to the research questions.
Chapter Four: Massive suburbanisation: Diverse suburban developments in Nanjing

4.1 Introduction

While suburbanisation has been examined in past theoretical research, diverse suburban developments in China are relatively new. The current form was created through rapid land use transformation and spatial reconfiguration following the establishment of a land market. The emerging suburban development, dominated by practices and policies, represents a top-down program that is changing state-led industrialisation into a market-oriented system. Despite the dominant role of government-sponsored residential growth in Chinese suburbs, all ranges of sectors and capital have been involved in the transformation of rural land for urban land use in contemporary suburban new towns.

Since economic reform, China’s rapid urbanisation has not only provided a new living environment developed by the private housing market but also an opportunity for land development and investment (Shen and Wu 2016). Meanwhile, Chinese suburbanisation is not only dominated by state-led industrial relocation but is also driven by the entrepreneurialism of the state in the land development process (Wu and Phelps 2008; Shen and Wu 2016), in which the suburb is the space for production investment and commodity housing development. The development of suburbs represents economic restructuring and a changing mode of governance (Ekers et al. 2012, Hamel and Keil 2015). In contrast, the process of Chinese suburbanisation is closely associated with industrialisation and urbanisation. Members of the new middle class are moving to the suburbs for a better living environment, especially for improved housing quality, rather than to escape from urban decline. Their purchase of suburban homes is part of their social class formation (Zhang 2012). However, they also buy suburban homes as second properties for the purpose of investment. A significant number of residents in inner urban zones have been relocated to the suburbs because of demolition and renewal. In addition, as Chinese suburban growth is an integral
process of industrialisation, the expansion of suburban industries attracted an influx of rural migrants from other rural areas. As a result, Chinese suburban development is also a process of urbanising rural regions. The country’s suburban development thus enriches the understanding of suburbanisation and post-suburbia growth, revealing heterogeneous suburban landscapes during this massive suburbanisation process and the interwoven forces of the state, the market, and society, all of which have different motives, constraints, and preferences. The Chinese suburb, developed under massive suburbanisation, is heterogeneous because the process is dominated by multiple level of governance and development approaches.

This chapter attempts to present the features of suburban development in Nanjing. The immense developments in Chinese suburbs are associated with diversifying industrial spaces with comprehensive urban functions in order to sustain economic growth. This chapter is organised as follows. Firstly, the government’s role in facilitating various investment methods and participating in suburban land development is briefly summarized. Secondly, the history of Nanjing’s suburban development process is reviewed to identify each feature. Afterward, the municipal government’s rationale for a new suburban development strategy is analysed in response to the driving forces of suburban growth. Section 4.5 analysed the three approaches of changing the environment, dominated by the district government, to draw private investment to facilitate suburban expansion. Finally, a mode of entrepreneurial governance and emerging growth coalitions are examined to show the overall effects of these policies, strategies, and approaches in forming the spatial layout and functions of the present case.

4.2 New approaches to suburban development in China

4.2.1 The political economy

Economic reform has created a range of new conditions for suburban development. In the political economic sphere, the state adopted market-oriented reform in 1979. As state-led industrialisation has reached its limits, the reform attempted to facilitate economic growth by introducing market operations in all aspects of the economy. This
signals a shift from state socialism to capitalism. The market-driven approach indicates China’s embrace of neo-liberalism (Harvey 2005), and much has been written about transferring the usage rights of state-owned land to private developers (Zhou and Ma 2000, Deng and Huang 2004, He and Wu 2009, Shen and Wu 2013).

In the socialist period before economic reform in 1979, the land market was absent. Suburban land expansion was carried out by state-owned enterprises as part of the industrial development process. In the late 1980s, the land market was introduced to China, and “housing commodification” sped up dramatically after 1998, when the allocation of public housing was suspended. In the 1990s, private developers spurred suburban development via emerging land growth. However, the state still plays an enabling role in terms of the development of land use, labour and environmental policy, as well as judicial and legislative frameworks, while private developments take commercial, residential, and industrial forms defined by political and social exclusion. Market-oriented land reform is a state-engineered, state-controlled, state-led process meant to facilitate accumulation and legitimise state power (Wu 2010, Shen and Wu 2016).

With an overall increase in social wealth and an ideological shift, post-reform society has witnessed the proliferation of consumerism and material cultural over the last three decades. Urban residents have experienced a “consumer revolution” based on an overall improvement of living standards (Davis 2000). Before 1978, material consumption was denied to the masses because it was considered ‘bourgeois in origin and surplus to authentic human needs’ (Shen 2011). Yet this idea became obsolete in the face of the rampant spread of mass consumption. Moreover, the practice of consumption has become the primary means of actualising an individual’s value and establishing one’s social status and dignity.

4.2.2 An approach to housing reform

Chinese housing reform provided the most important preconditions for space commodification. In the pre-reform era, property development was almost absent from
suburban development. Now, developers are pioneers who actively materialise gains from land through property expansion. Meanwhile, local governments have their own stake in revenue generation from local growth in order to improve the suburban environment, as well as to sustain and consolidate in the political arena. However, suburban growth in this period emerged as less planned and mixed with work-unit residential areas, fragmented industrial development zones, and urban villages on the metropolitan fringe (Deng and Huang 2004). In the 1980s and 1990s during the early stages of suburbanisation, the spatial pattern of suburban growth was scattered, appearing in the form of monotonic residential uses, mostly consisting of match-box-style apartment buildings, often built by state-owned industrial enterprises in the suburbs for their staff members. With rising land and economic development, suburban expansion has played an important role in serving the needs of decentralisation but also played dominant role in growth in regional and even global economies. Furthermore, suburbs are well-planned as new towns that become places with good environmental quality for residential and commercial development, combined with improved living facilities and services. Clusters of suburban residential settlements are often well-planned and evolve into self-sustaining towns.

The welfare allocation of housing was abolished and commodity housing became the primary means of the new housing supply. With the establishment of the housing market, homes became commodities to be consumed. Thus, homes could be developed to be more attractive, advertised, and marketed to make a profit. Individual households replaced work-units as the major buyers in the housing market, and were granted the freedom of housing choice.

Administrative and fiscal decentralisation also boosted large-scale suburban development. The government has not only gained greater discretion for dealing with local revenue but also fully uses its power to manage land leasing and urban development. In other words, the government is a regulator as well as a market player (Wu and Zhang 2007). Evidently, local governments have morphed into entrepreneurial governments, creating various investment methods and platforms to participate in land development. This is broadly similar to other places where different social, political, economic, and environmental processes highlight each role in shaping
suburban growth and life (Phelps et al. 2010, Ekers et al. 2012, Hamel and Keil 2015). Housing reform and suburban development are integral processes that reflect the ideology of governmental entrepreneurialism (He and Wu 2009). On the one hand, market transition and spatial restructuring create opportunities for residential mobility and residential land use restructuring; on the other hand, stratified affordability gives rise to a new system of residential resettlement in the suburbs.

4.3 The history of Nanjing’s suburban development

Twenty-five years ago, the suburban area of Nanjing was a rural backwater. Since Deng Xiaoping designated Shenzhen, a mainland coastal city, as a special economic zone in 1980, putting out the welcome mat for foreign investment and encouraging private enterprise, trillions of dollars of trade and investment have flowed across the border. Nanjing’s municipal government decided to learn from Shenzhen’s experience and set up a Development Zone at the city’s own expense in 1992. After several rounds of discussion, they prepared a 5–10-year plan to develop an industry-oriented economic development zone containing trade and innovative technology. The process is summarised in the following phases.

1992–1999: The development of blue-collar and rural enclaves

Suburbanisation in Nanjing began with the development of industrial zones and decentralising industries. The initial spatial pattern was planned for the urban fringe in order to accommodate enterprises relocated from the central area. Residential clusters were planned around industrial parks, which provided a convenient living environment for relocated employees. The residential cluster emerged in distinctive patterns, with existing surrounding settlements in which the residents’ social status showed homogeneity, as represented by blue-collar workers.

2000–2003: Middle-class relocation

Rapid population growth in Nanjing resulted in declining housing conditions, and areas of poverty began to emerge. Municipal government began the process of urban
development in peripheral areas to address the issue of housing congestion in central areas. Residential areas with extremely poor housing conditions in the urban centre were demolished for commercial land use. Meanwhile, the government energetically developed infrastructure and housing projects to boost the local housing market and to economic growth. Areas close to the urban centre with natural environmental advantages were considered prime places for accommodating a decentralised population and providing better housing. In this situation, the municipal government adjusted the administrative boundaries of its districts to address the problem of insufficient land for building large-scale infrastructure. Meanwhile, along with increasing demands for housing by the new middle class, many residential projects sprung up in the urban fringes with comparatively low housing prices. For instance, small- and medium-sized condominiums and high-end residential communities emerged during this period, along with an increasingly middle-class population. However, most homebuyers were speculative investors, as the living facilities such as schools, hospitals and public transport methods in the suburbs were still inadequate in the Nanjing suburbs. In general, suburban communities in Nanjing were not liveable places.

2003–the present: The booming of a diverse suburbia

Since 2000, suburban development in Nanjing has evolved into a new form, with vast investments involved in property development. The suburban form was created by the decentralisation of manufacturing, administration, retailing, and public services. The suburban pattern has increasingly mixed land uses. The strategy of rural-urban planning has been applied to Chinese suburbanisation since 2003 in order to improve the living environment and conditions in the suburbs. This is in essence an urbanisation strategy that transforms formerly rural landscapes. In addition to continually supplying luxury housing in the urban fringe, the enhancement of facilities in the central areas of suburban new towns was expedited. Small- and medium-sized communities were launched at the same time. Consumers wanted a new quality of housing, and real estate developers provided commodity housing to satisfy distinctive housing choices and preferences. Moreover, suburban, gated communities have increased dramatically in number and are planned as self-contained clusters to
address security and privacy issues. Rural migrants from other cities concentrated in the suburban industrial zone to pursue employment opportunities.

Suburbs in Nanjing were not only regarded as locations where urban and rural areas were connected but also fulfilled an urban function that transformed rural zones in order to produce economic growth and increase urbanisation levels. On the one hand, residents living in the suburbs had diverse living demands, especially the middle class, whose pursuit of high-quality environment and facilities stimulated urban fringe areas, transforming them from supporting urban central areas to becoming self-contained developments. On the other hand, the government gradually relocated large industrial enterprises with environmental impacts, thus improving the quality of the suburban environment. Meanwhile, the suburban residential pattern formed ringed layers in Nanjing due to the diverse demands of the housing market. Town centres and high streets are located close to the main city. High-quality residential communities are distributed in the inner ring of the suburbs; their main residents are relocated urban households and high-income migrants. In the middle ring, the main occupants are industrial parks, rural enterprises, and dormitories for employees serving nearby companies, as well as the rural population. The outer ring has no clear boundaries with the middle ring and has a landscape of rural area.

Overall, as a tier-one metropolis in China, Nanjing has an administrative area of 6,587 km², containing 11 districts. Nevertheless, the city remained dense and compact until 2003. Most suburban development was dominated by industries, and the public image of suburbs was remote and desolate. Until 2015, the central districts contained 6.78 million (out of a total population of 8.27 million). The average population density for Nanjing metropolitan area rose to 1,215 people per km², declining with distance from the centre (Nanjing Statistical Yearbooks 2015).
4.4 Program, plan, and policies

4.4.1 Program: from an Economic Technological Development Zone to a new town in the strategy of “One City, Three Districts”

Suburban development in Nanjing formally began in 1992 following the establishment of the Jiangning Economic and Technological Development Zone (ETDZ), the goal being to decentralise urban factories and develop export-oriented industries. Since 1990, Nanjing has experienced huge population growth, leading urban settlements to rapidly sprawl into peripheral areas. At the time, the inner ring just outside the central city still mostly consisted of a rural landscape. Surrounded by rural land, the initial development showed a less planned, scattered pattern. On the one hand, founding the ETDZ was an attempt to relocate urban factories; on the other hand, the effort aimed to adopt a preferential policy to attract industries to boost economic growth.

However, the method of using industrial development to support urban growth and stimulating industrial upgrade remains a tricky issue that requires tremendous land development while maintaining a sustainable environment. The problem is especially reflected in the rising demands of the service industry, whereby many industrial parks and research centres, or the innovation departments of domestic and foreign corporations, are settled in the ETDZ. Hence, local governments adopted a strategy of rapid urbanisation while maintaining industrialisation by raising the urban capacity for new industrial growth. Compare to other governance of development zones in many Chinese cities, the intention of developing the ETDZ went far beyond what economic growth can provide to increase local revenue. On the one hand, local governments shift their interests from expanding investment to supporting the expansion of productive services such as offering under-priced land to solicitor firms, consulting companies, and banks that conveniently serve local corporations. On the other hand, their interests are moved up on the priority list to successfully improve urban amenities under rapid industrialisation (e.g. district government provides preferential policies for public hospitals to build their branches in Jiangning in order to promote the value of land development).
In 2000, China’s State Council agreed to adjust Jiangning from a county to an urban district, with the aim of raising Jiangning’s land value and position to further attract high-class industrial and human resources. In 2001, the municipal government proposed a planning strategy known as “One City, Three Districts” to confront the fast process of urbanisation in Jiangning. The strategy suggested a new metropolitan structure for Nanjing to implement “Three Concentrations” – concentration of industry towards planned industrial parks, population towards cities and towns, and land development towards larger. In this strategy, Jiangning was selected as one of the new metropolitan districts in which to concentrate at least 600,000 urban residents. The new metropolitan layout of Nanjing shows a polycentric structure consisting of different sizes of settlements. Furthermore, the administrative adjustment not only brought great growth potential via autonomous policy but also a wider range of investments. The significance of local interests and local autonomous power is rising, and the dimension of governing ability directly determines the pattern of interests. The most obvious example comes from the government’s right to control planning; each administrative adjustment allows Jiangning to modify its master plan, because altering the master plan at the district level does not conform to planning regulations. Therefore, as a strategic solution, the master plan responds to the timely adjustments of developmental interests, enabling local governments anticipate the risk of promoting land development projects. The data indicate that the initial scale of land development in ETDZ was only 5 km$^2$. Along with the rapid economic growth, the scale was planned to expand to 26 km$^2$. After several major planning adjustments, the scale was enlarged to more than 120 km$^2$ in 2012, which is 24 times that of 1992. The actual use of the land eventually reached more than 200 km$^2$ in 2015. Such immense land development determines the possibility of diversified suburban residential patterns and multi-functional spatial structures in Jiangning. On the one hand, the administrative level could be raised from an industrial zone to an urban district; on the other hand, the urban district could be developed into a sub-centre at the metropolitan level. Such a strategy reveals administrative mechanisms paralleling and intervening with each other, leading a form of post-suburbanisation to emerge in the development of Jiangning.
Under the new wave of expansion of the ETDZ, a number of urban science and technology projects were introduced, such as technological parks founded by Tsinghua University, Nanjing University, the Chinese Academy of Sciences and CCTV Animation (China Central Television Animation). The entry of increasing proportion of services institutions has led to the relocation of manufacturing companies due to the new emission for enterprises, especially enterprises with polluted emissions, out of ETDZ. Furthermore, local governments adjusted planning to relocate low-profit factories outside of the ETDZ and replace them with the logistics, software, and service outsourcing industries; this tends to keep Jiangning in a competitive position compared to Nanjing’s other districts. The district government successfully changed Jiangning from an agriculture-based rural backwater to a suburban area with urban growth through massive industrialisation and land development.

By improving the transportation infrastructure, such as highway, Nanjing’s airport and high-speed railway station, the government tried to cultivate an environment for capital accumulation from different sectors. Local sectors focused on building infrastructure and public facilities before implementing the welcome strategy for social capitals and private enterprises, which was able to accelerate the development process. Besides the existing industrial sectors built during the township period, the new strategy viewed Jiangning as one of three towns contributing to the service and innovation industries, as well as providing urban residential land. A limitation on land quotas was established by transforming rural land into urban land use. For instance, the municipal government was able to improve infrastructure by constructing two highways and an additional metro line to connect Jiangning with surrounding areas. The new transport structure aims to create a “One-Hour Commuting Metropolis” to strengthen the economic and political impacts on surrounding cities. As the primary industrial zone in Nanjing, foreign companies increase investments, along with enhanced infrastructure, such as setting up headquarters and expanding factorial scale in order to boost capital mobility. However, such actions also lead to a driving force for local governments in terms of re-adjusting spatial patterns and functions. Regarding economic growth, the proportions of agriculture in Jiangning changed from 21.63% in 1995 to 7.42% in 2005. Meanwhile, the ratios of service sectors have changed from 17.85% to 31.23%. The amount of the urban population in Jiangning rose to 61.8% in 2005, up from 22.2% in
2000, indicating that Jiangning moved towards a rapid process of urbanisation due to its economic growth and structural adjustments (Jiangning Statistical Bureau 2009).

### 4.4.2 Policies

In order to support the strategy of “One City, Three Districts,” the municipal government launched a series of policies and institutional changes concerning almost all relevant aspects including planning, land leasing, the development system, industrial concentration, and population growth. Central to the strategy of these policies was the creation of conditions favouring economic contributions. Consequences were not neglectful when immense industrial development shaped the economic structure of the ETDZ, which relied heavily on exports. The manufacturing industry mainly undertook assembling work, rather than controlling the link between research and innovation. Along with rapid economic growth, which benefited from manufacturing in the past, labour and land costs have risen significantly. The land quota has led to a shortage of new developments, which has hindered demand for land in the domestic high-tech industry.

Local governments rapidly sensed the market changes and adjusted their urban planning in 2003, which raised the access conditions of new developments. Moreover, while encouraging the development of domestic brands in the automobile and information technology (IT) industries, local governments increased policy support for scientific and technological innovation. For achieving meritocracy and attracting highly skilled workers and young talent to settle down in Jiangning, district and municipal government attempted to re-draw the plan for expanding the land use for education and relevant facilities and real estate development. A land subsidy policy was initiated for universities to encourage them to develop subsidised housing projects for their own staff members and professors. This approach motivates highly skilled and well-educated people to move to Jiangning, and also benefited from financial support from the provincial government. For example, Jiangning University Park allowed Nanjing-based universities to build up their branch campuses for improving the research conditions for scholars and students.
The cost of building a new campus is jointly funded by the provincial finance department and the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Large foreign and domestic corporations rapidly occupied the ETDZ including Flex Ltd., a leading American technology company; Phoenix Contact, a Germany-based electrical automation firm; PepsiCo; Diehl Stiftung Group, a Germany-based aerospace and defence system technology company; and Aerosun Corporation, a domestic aerospace science company. Apparently, the rise of the ETDZ relied more heavily on resolute decision-making from hierarchical governments, the urban planning process, and state-led land development.

Meanwhile, small-scale of real estate developments rapidly emerged in the surrounding area of ETDZ for attracting rural residents who intended to live in the urban settlements. With the increasing proportion of rural land were expropriated while low profits from the small-scale development. The central government had to reinforce its regulation of land development and require local government to fully comply with. The regulation aims to control scattered development in the suburbs by processing the planned annual quota for the total amount of land allocated to urban construction. In 2004, Nanjing municipal government initiated a new policy on quota allocations, and indicated that if the amount of built-up land in the countryside was reclaimed for agricultural use, an equal amount could be added to the total quota for construction land in the urban zone. The implementation of the policy makes small-scale rural land development no longer feasible. The integrated pattern of land development has become the main form of suburban development.

4.4.3 Plans

The new round of the 2000–30 Nanjing Master Plan proposed a strategy of expanding urban scale and urbanisation level. The master plan presented an intention to develop Nanjing as a metropolitan area, and to build service industries rather than export manufacturing industries. Nanjing’s new metropolitan layout shows a polycentric structure consisting of different-sized settlements. The land development integrated
employment and residential uses in an attempt to facilitate economic growth. The strategy aspires to raise local revenue and taxes from the booming housing market. The municipal government aimed to adjust the industrial structure by promoting a service economy. In this plan, three major strategies were introduced to increase Nanjing’s urban competition.

First, the ultimate goal is to build a new polycentric pattern for the population and service industrial concentration at a larger metropolitan scale, especially to make Nanjing a partner of Shanghai and an international city. Second, the policy of rural-urban integration becomes a long-term strategy to implement economic structural changes and to develop innovation and service industries. Third, Nanjing welcome real estate investments in order to build a contemporary city where can provide accommodations for new comers and residents. Thus, in 2010, each urban district proposed its own development plan to cooperate with the new round of master plans.

Among these plans, the Jiangning District government predicted that at least 600,000 urban residents could be accommodated. This figure contains the biggest projected population growth in Nanjing over the next 10 years. Importantly, massive land and housing development becomes a crucial force. The average housing price per square metre has reached more than 27,000 Yuan within the past five years, up from 5,600 Yuan in 2005. The entire population of Jiangning reached 935,659, including an increase of 23,345 locally registered residents. The number indicates that tremendous land development and the adjustments made to the economic structure drew a vast number of migrants to live in Jiangning, which not only increased the urbanisation process but also provided a labour force. Twenty-five km² of land were released from original rural land use for processing south-west towards land development, creating the possibility for huge land development in Jiangning. A scheme known as “Housing Improvement for Millions of People” was introduced to build up 20 million m² of affordable housing. Most of the land was concentrated in Jiangning, as local farmers were encouraged to give away their rural land by relocating to the newly developing region. In detail, under that scheme, one important practice was known as the housing plot exchange whereby farmers could choose cash, or housing compensation and employment benefits, in return for giving their rural land to local governments for land
development. Either form of compensation is able to satisfy rural residents, as well as brand new apartments in Jiangning and the social welfare of urban hukou.

Moreover, 12 parks and around 2.73 km² worth of green land were proposed to improve the natural environment and to narrow the differences between urban and rural living standards. Local governments “imported” the affluent leisure complex into Jiangning known as “1912” - an urban regeneration district composed of reconstituted, traditional, mid-nineteenth century stone gate houses in narrow alleys that now serve as cafes, restaurants, bars, and shopping malls, Wanda Plaza - a national brand of commercial complexes composed of luxurious hotels, high-rise residences, pedestrian streets, and shopping malls, and Golden Eagle shopping malls - a local brand of commercial complex. These high standard developments and amenities create an urban image that positions suburbs as areas of affluent living and leisurely enclaves.

The street network is also divided into three grades: main roads, subordinate roads, and branches. Firstly, the peripheral area is connected by ring roads for fast commutes between urban zones and other cities. Secondly, Jiangning is planned as a grid layout constituted by inerratic squares, often shown as 500 metres by 500 metres. Thirdly, in addition to the indicators of land density, land plots were planned in intact forms so that local governments are able to sell pieces of land separately or in combination. Lastly, the planning system tends to use surrounding roads to indicate the boundaries of residential communities, such that gated communities develop by means of setting up gates and walls. The grid and formerly planned patterns for industrialisation cause the dimensions of plots to be much larger than in urban areas, showing a massive scale of suburban residential development in Jiangning. Furthermore, in addition to urban regeneration in existing towns, land development is a process of changing rural land use into urban land; hence, implementing huge land development in a grid form helps to avoid wasting land use.

Urban greening was regarded as the most important element in measuring the living and relative land development environment in Jiangning. Local government leaders aimed to provide “an ecological environment centring on greening, wining with greening, and setting in greening to embody the essence of modern cities.” In the
centre of Jiangning, two large green belts were developed around two lakes to constitute its landscape axes. One was 6.1 km in length and 300 m in width (from east to west); the other was 12 km in length and 350 m in width. A forested area was planned to be 3 km² by 2015 and to symbolise an eco-friendly urban space. Construction of these green spaces was the earliest project undertaken by the district government. Thanks to ongoing investments, planned green spaces have continually increased since the Twelfth Five-Year Plan. According to an approved version of the Jiangning Master Plan, public green space is going to be 2456.8 ha of by 2020. If the total population in 2020 grows to 1.6 million as estimated, this means that green space per capita is going to be 13.6 m². Furthermore, every street level administration has been given the responsibility for providing convenient service for enterprises and residents. Thus, street level development is not only meant to propagandise the strategy to the public from the upper level and to formulate specific governing regulation in the same time but also needs to promptly response the demands and suggestions of residents to the upper level authorities and relevant departments.

Furthermore, developing residential settlements around university parks led to a trend of high-quality land development. Although Nanjing is one of the most developed cities in China, with affluent educational and scientific resources, more than 50 university campuses were located in the urban area, which reached their capacity to expand enrolment. For strengthening the leading position of higher education in the nationwide, Nanjing municipal and Jiangning district government jointly allocated a huge amount of land at a cheap price to 15 local universities, and committed to supplying amenities and infrastructure for settling more than 160,000 students and staff members. Along with the expansion of university parks, Jiangning intended to completely alter the previous population structure and the image of rural-urban integrated areas by introducing young talent and implementing the strategy of talent development.
4.5 Optimising the environments of suburban development

4.5.1 The institutional environment

As a centralised state, the structural policy frameworks of central government is particularly powerful in constructing and reconstructing suburban development in China. Nanjing as a large city in China where state-directed investment concentrated in, urban expansion fuelled by local financing schemes that are heavily reliant on the sale revenue of expropriated rural land. (Zhang and Wu 2006, Qian and Wong 2012). Meanwhile, spatial development in the suburban area is very much contingent on the prevailing local conditions and local policies (Wong et al. 2018). As urban expansion pushes its frontier, rural villages and neighbourhood towns of Nanjing have been drawn into peripheral urbanisation process. Under the influence of land-centred revenue generating environment, administrative decisions and related institutional arrangements include macroscopic productivity and industrial structural adjustment, town planning, the improvement of development zones, the household registration system, the employment system, and the social security system are implemented under government of Jiangning district since 2000s. These changes manifest in legislation and regulations of establishing district government, as well as adjusting their individual policy of rural land conversion outside the municipal framework. For example, the “The Measures for the Compensation and Resettlement of Land Requisitioned housing in Nanjing, 2007, Policy 60” compensates farmers more urban accommodations, social welfare, and insurance during land conversion. “The Trial Measures for Land Requisitioned Person, Measure 254”, proposed in 2010 to regulate social security funds and compensation, was settled through the government’s special accounts. Therefore, land compensation, compensation for relocation, a settlement subsidy, and basic living security funds were directly transferred into farmers’ accounts from the special accounts. Furthermore, the district government encouraged township enterprises to transform their rural industries into urban agricultural ones, such as by developing urban farms and tourist areas in the suburbs. Such an approach represented not only an attempt to upgrade the industrial structure but also to boost rural workers’ income.
Nanjing municipal No. 3 measures, known as “Implementing Measures of Transferring the Management Right of Rural Land”, was proposed to transfer farmers' housing plots to the government in return for acceptable compensation and benefits. At the same time, urban central area in Nanjing was undergoing a large-scale transformation and regeneration, the existing urban settlements were demolished and turned into mega infrastructure. Municipal government provided new accommodations for them in Jiangning as compensation. In order to reach the relocation agreement within the schedule, municipal government established special group at municipal level to deal with the demands of individual relocation households. According to the policy of “Urban Housing Units Management Regulations”, district government have the right to offer higher compensation for relocation has based on the assessment of land value, and the funds shall be provided by the relevant real estate developers and public sectors. Furthermore, the municipality imposed an initiative of rural-urban integration, which aimed to narrow the development gap between urban areas and the countryside by raising farmers’ living standards.

Efforts toward institutional improvement also aimed to create new jobs, enhance the urban housing security system and housing supply structure, and help low-income families, migrant workers, and highly talented individuals facing housing difficulties. For example, the municipal government introduced the Notice on the Management of Rental Housing in 2008. The notice regulated three approaches to improve rental housing at the municipal level. Firstly, land for rental housing development shall be included in the annual plan of land use, as well as the annual implementation of the housing security plan. Secondly, land for non-government investment of public rental housing could be subsidised by the public sectors, and development could use a shareholding method. Thirdly, the purchase of public rental housing is exempt from the deed tax and stamp duty. The stamp duty on the lease agreement between the two parties is exempted as well. According to this policy, each urban district creates its own approach to enhance the growth of rental housing. In order to attract talent, the Jiangning District government expanded the development scale of public rental housing and set up special approval channels for highly skilled workers.
Huge economic contributions demonstrate the impacts of preferential policies (see Figure 4.1). Residents’ per capita disposable income reached more than 28 thousand Yuan in 2010, which is the average income level of Nanjing’s three urban districts. The fiscal revenue was 483 million Yuan in 2000, and increased to 9.3 billion Yuan in 2010, which is more than 18 times the original amount within ten years (Jiangning Statistics Yearbook 2010; 2016). Evidence suggests that the influence of preferential policies boosted Jiangning’s overall economic growth and social structure change, leading to the economic conditions of rapid urbanisation in a short time, as well as an appropriate environment for diversified suburban residential development.

Table 4.1 The main indicators of Jiangning’s economic and social development according to the Twelfth Five-Year Plan

<table>
<thead>
<tr>
<th>C</th>
<th>Index</th>
<th>2015 Planning objectives</th>
<th>2015 Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy</td>
<td>Regional GDP (100 million Yuan)</td>
<td>&gt; 10,000</td>
<td>9,720.77</td>
</tr>
<tr>
<td></td>
<td>GDP per capita (Yuan / permanent population)</td>
<td>110,000</td>
<td>118,171</td>
</tr>
<tr>
<td></td>
<td>Local general budget revenue ($100 million)</td>
<td>&gt; 1,000</td>
<td>1,020.03</td>
</tr>
<tr>
<td></td>
<td>The added value of the service sector accounts for the proportion of GDP (%)</td>
<td>&gt; 56</td>
<td>57.3</td>
</tr>
<tr>
<td></td>
<td>Urbanisation rate (%)</td>
<td>83</td>
<td>81.4</td>
</tr>
<tr>
<td>Innovation</td>
<td>Total social R&amp;D expenditure as a proportion of GDP (%)</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Human capital investment as a proportion of GDP (%)</td>
<td>16.8</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>The number of patents authorised for the region’s GDP</td>
<td>350</td>
<td>410</td>
</tr>
<tr>
<td></td>
<td>Contribution rate of scientific and technological progress (%)</td>
<td>60</td>
<td>&gt; 61</td>
</tr>
<tr>
<td>C</td>
<td>Index</td>
<td>2015 Planning objectives</td>
<td>2015 Implementation</td>
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</tr>
<tr>
<td>Public service</td>
<td>Public service expenditures in urban and rural areas (%)</td>
<td>68</td>
<td>77.7</td>
</tr>
<tr>
<td></td>
<td>Rural-urban social insurance coverage rate</td>
<td>&gt; 99</td>
<td>&gt; 99</td>
</tr>
<tr>
<td></td>
<td>Public transport sharing rate (%)</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>New affordable housing area (10 thousand m²)</td>
<td>2,000</td>
<td>2,416.9</td>
</tr>
<tr>
<td>Life</td>
<td>Urban residents’ per capita disposable income (Yuan/Annual)</td>
<td>&gt; 50,000</td>
<td>46,104</td>
</tr>
<tr>
<td></td>
<td>Rural residents’ per capita disposable income (Yuan/Annual)</td>
<td>&gt; 22,000</td>
<td>19,483</td>
</tr>
<tr>
<td></td>
<td>Urban registration unemployment rate (%)</td>
<td>&lt;4</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>Urban per capita green area (m²)</td>
<td>14.3</td>
<td>14.98</td>
</tr>
<tr>
<td></td>
<td>Residents’ average life expectancy (years)</td>
<td>77.2</td>
<td>82.5</td>
</tr>
</tbody>
</table>

Source: Jiangning Statistical Yearbook 2016.

### 4.5.2 The investment environment

The municipal government’s significant approaches to change the investment environment are reflected in the improvement of Nanjing’s public image, of its urban competitiveness, and of its industrial structure. Because the peri-urban area is a flexible and transitional space in a constant state of flux, it features with adapting to the heterogeneity of population migration and production and consumption (Gallent 2006). The unique spatial pattern of transitional space was seen as contradicting the implementation of new type urbanisation. Optimising the investment environment is a highly top-down strategy to stimulate form of economic growth that matches with the image of a modern China. Since 2001, great efforts have been guided by the principle of “chenshi yishi” (literally, “the consciousness of being urban”), which is widely
implemented at the municipal and district levels. This tenet involves radical transformation of the landscape and the promotion of Jiangning as an urban district, which has great investment potential and an attractive environment, with urban functions and landscapes. Initiating such a principle is considered from three aspects. Firstly, in order to draw industrial capital to sustain economic growth, the district government urgently needed to collect revenue from different forms of land development. Secondly, urbanising suburban space changed investors’ mentality regarding Jiangning. Hence, the government could recapture the rent gap of land value. Thirdly, publicising investment potential helps to attract social capital for high-quality urban growth. Packaging the city’s public image while implementing a government-led mechanism is a major governing intervention to form the suburban spaces.

The economic, competitive environment is fully implemented at the government district level to optimise the investment atmosphere. Competitiveness in various fields has become an important index for the district government to sustain economic growth. The district government started up a new round of economic growth initiative in 2003, which was aiming to promote both manufactural and service industrial prosperity; however, the competitive strategies of these two aspects were different. Regarding the strategy of manufactural industry, the geographic advantage for sustaining industrial prosperity was mainly related to location-specific benefits and policy implications that help reduce cost, such as automobile and productive industries. Thus, infrastructural development and industrial cluster development for reducing the cost of manufactural enterprises dominates the landscape of Jiangning in improving the investment environment. In terms of prospering services industry, the industrial zones provide low-priced land, tax breaks, and other preferential policies for logistics enterprises and chip manufacturing. At the same time, in order to achieve the population agglomeration effect, the development of real estate industry and related supporting service settings is regarded as the most effective way. Jiangning was not a favourable settlement to residents from urban centre of Nanjing because it was known as a peri-urban transitional area with manufacturing-oriented environment, thereby the land prices were far less than those in the central districts. Few investors were willing to develop real estate projects there, especially commercial and housing
ones. Hence, the strategy of changing investment environment by transforming urban landscape has become an important driving force. In addition, achieving a work-life balance is an important factor in attracting diversified social capitals and investment in Jiangning.

For achieving the strategies, transforming land use became a frontier approach for the local district government to optimise the investment environment. According to the Urban Construction Committee's Policy Document, the Jiangning District government had the right to deal with land leasing management and urban construction itself. Moreover, apart from only 5%, which was paid to the central state, the district government was able to keep most of the land lease fee. The municipal government began to share land lease fees with Jiangning in 2002, as the key site of the municipality’s new town construction committee was exempt from this policy. An entrepreneurial strategy based on land development emerged to increase both budgetary and extra-budgetary incomes. The local government continued to attract industrial investment through low-priced land and preferential tax policies. Due to these policies, the local government may have suffered a financial loss and been unable to generate profits immediately. Yet in the long term, manufacturing factories provided a stable tax base. At the same time, the local government relied heavily on leasing land for residential and commercial use to generate large sums of extra-budget income. The actual price of land is determined by the highest bidder in a public auction. This is achieved through market-oriented processes such as public bidding and auctions. In other words, land-centred approach became the main source of revenue and helped to cover the expenses resulting from land acquisition and infrastructure construction, as well as other public costs. Notably, land and property development did not directly stimulate economic growth; its main contribution was to generate revenue for multiple level of government, which was only a one-off return. The government in turn used the money to support manufacturing industries and pay other public expenditures. Following this logic, inducing investment and leasing land became two basic and interrelated paths of local economic growth.
4.5.3 The real estate environment

Nanjing municipal and State–owned Assert Supervision and Administration Commission (SASAC) directly involved in building infrastructure and mega-projects. The SASAC and municipal departments not only undertook primary land development and prepared land to be ready for expansion for private developers but also used its power over planning and development control to propaganda an emerging investment environment. These approaches were not only usually expressed in the form of rewards for land development enterprises, tax reductions for industrial companies and funding for foreign capital projects, but also legitimising the transformation of land use from industrial land to housing land use. For example, the commercial real estate enterprise who develop a public housing project was given 30–50% of a deed tax subsidy during the entire process of land transaction. Furthermore, several investment and economic conferences were held at the municipal level to provide cooperation opportunities for real estate related enterprises.

Supporting by preferential policies, the real estate development in the suburbs has become a low-risk project. Nevertheless, the emerging social changes demonstrated improvement of the real estate environment. The first was the real estate has become a new economic growth pole. Before 2002, the minimum capital requirements for entering the real estate market were quite low. Not only were developers able to easily access large sums of money at low interest rates but homebuyers could also purchase commodity housing with a deposit of only 20–30%, or even 0%. Real estate became a key rising industry, leading to the emergence of a large number of new private development companies. Nevertheless, potential and opportunities were not evenly distributed. For one thing, ever-increasing land prices made building in the centre a high-cost investment. For another, because (re)development projects were often proprietary to state-owned or large-scale developers with good connections to the government, small-scale developers had limited access to land in advantageous locations. For these reasons, minor developers were pushed out towards the periphery, spurring an upsurge in suburban real estate growth.
Secondly, many private industrial owners joined housing developers. In the face of an increasingly difficult situation in the export market, many entrepreneurs from state-owned manufacturing factories found investing in Jiangning’s real estate market to be a low-risk way to preserve their asset value. The booming housing market also drew private and individual sectors. With few options for investing in China, property has become a primary store of wealth. Millions of middle-class families rushed to purchase second or third homes as a hedge against inflation. As non-professional investors with large amounts of cash, both groups are drawn to the suburban housing market. Compared with investing in expensive apartments in the centre, the threshold of entry is relatively low, the return is quicker, and the capacity for price increases is larger. Some investors bought small units to rent out, while others left their houses empty and sold them later on at a better price.

Thirdly, the demand for better living quality along with the increase of residents’ income changed the forms and types of new real estate projects. Settlements began to concentrate near natural landscapes for introducing a concept of modern arcadia. The residential forms were not limited to villas and detached villas; townhouses and low-density apartments dominate the residential form in serving the niche market of the nouveau rich, who tend to fulfil a dream of owning a luxurious home. Meanwhile, because many plots were sold before 2003 and left alone for further development, many real estate projects were still built in low-density villa forms according to the previous plan. Meanwhile, the constraints on the period of land development were widely applied in addressing speculations on land transactions, and the numbers of real estate projects experienced rapid growth, showing a prosperous image of suburbanisation. By the end of 2015, among all the houses under construction, the units of high-rise and mid-rise buildings and villas accounted for 32%, 45%, and 13% of total construction, respectively. In the period of 2006–15, residential projects began to dominate the growth of the real estate market in each of Nanjing’s districts. According to data from the Nanjing Housing Security and Real Estate Management Bureau (see Figure 4.1), until 2015, Jiangning District contained about a quarter of Nanjing’s residential projects, indicating that the real estate market experienced massive growth. The average growth rate rose to 196%, which is 20 times that of 2006.
4.6 Entrepreneurial governance and growth coalitions

4.6.1 Entrepreneurial governance

In the context of globalisation, Nanjing adjusted their strategies to pay more attention on their innovative industries and high-skilled production for maintaining the leading position among with the environment urban competitiveness in the nationwide. The final goal to create an entrepreneurial governance is to form an efficient governing process. Unlike the traditional institutional context, the mechanism of entrepreneurial governance in Nanjing has not yet truly formed, while the rapid development process is due to the strong autonomy of district administration, which can be understood that mayor plays the role of a manager to operate the city as an enterprise. The strategy is the use of administrative power and resources to establish common interests with specific private groups, forming a growth machine. The entrepreneurial manager’s role
has tremendous impact on different aspects, especially on the suburban residential development; in other words, a diversified residential pattern is suited to the common interests of state-led land development and the market-driven housing market.

After reforming the long-standing centralised system, the enthusiasm of municipal government was mobilised in boosting fiscal revenue. The reform released administrative privileges and economic interests to local levels and identified economic growth as a major direction. Therefore, municipal and each district government were able to pursue both the maximisation of economic interests in the region and political interests at the same time, which is a tremendous improvement in boosting land economic. Urban land, as an administrative resource naturally became operable and a source of important capital to the “government manager.” Meanwhile, the economic contributions from land development can be directly regarded as political resources to the mayor for achieving their political success. In the last century, the Nanjing municipal government planned a 5 km² land quota for high-tech industry use in Jiangning; these areas can also benefit from the national preferential policy in terms of land development. Such zone development accumulated initial capital for further land expansion in the early stages of suburbanisation in Jiangning.

Former model of economic development zone show that state-led land development has always influenced China’s suburbanisation in many senses, but Jiangning district is an exclusive case because it was funded at the local government’s own expense, and is the only enclave that profits from the municipal preferential policy. The land has not received direct investment from the central government, and market-oriented reform determines the local government’s lack of traditional means of intervention and direct control of economic resources. The only way to deal with the intense competition between each city is to release all the preferential policies that can be controlled by municipal governments, and to cooperate with companies and capital to maximise economic and political interests. On the one hand, the municipal preferential policy gave much more executive and autonomous power to the district level; on the other hand, land development within the zone could be in accordance with the interests and demands of local governments and in response to constantly planning adjustments. Significantly, the policy transformed the economic impetus of Jiangning from industry
and investment to consumption in a very short time, which formed a comprehensive spatial pattern.

Observing the booming of Jiangning over the past two decades reveal that development opportunities and benefits have always been influenced by the ambitions of local government throughout the whole process. For instance, once Jiangning needed to introduce industrial enterprises, the municipal government planned to introduce preferential policies on investment (i.e. for land use transformation, tax concessions, public facilities improvements, school arrangements, and even arranging jobs for investors' relatives). When the housing market in Jiangning shows a demand for more housing supply, the government has taken the initiative to sign land transfer agreements with state-owned real estate developers to ensure that land is developed in a short period of time with preferential land prices and even interest rate subsidies. Sometimes, Jiangning's government even leased land at under-market prices to attract investment in public facilities and amenities, such as schools and hospitals. Although there is no doubt that such preferential policies and government actions could be seen as de-normalisation in the sense of a traditional entrepreneurial government, while considering economic contributions and rapid industrialisation, the central government has always acquiesced to such actions.

4.6.2 Growth coalitions

The formation of growth coalitions in Nanjing was influenced by rent-seeking and cronyism under economic reform (i.e. indirect regulation and control of economic growth). Local governments were required to get support from companies to achieve effective governance. Meanwhile, enterprises required local protectionism and imperfect competition for excess profits to cooperate with local governments. Thus, local governments with autonomous power, and companies with strong financial support, established ranges of growth coalitions to jointly support local economic operations to achieve a win-win development environment. Generally speaking, the district government tends to review the housing policy to better run the housing market,
or intensifies its position of monopoly in the market to gain more profit by intervening in the growing market at the administrative level.

In the early stages of housing development in Nanjing, there were few market-driven housing projects. The introduction of growth coalitions aimed to resolve the problem of local surplus labour forces and to develop rural areas. Nanjing’s urban pattern showed no significant differences from other cities before 2000, revealing urban areas encircled by rural fields and scattered factories. The labour-intensive industry provided numerous jobs for local and non-local rural migrants. Local rural migrants usually live in rural houses and commute between factories and accommodations by bike, but non-local workers normally live in staff quarters near the factories. Thus, these accommodations are built to meet basic living needs (i.e. a canteen and a dormitory), while workers rely on other amenities in the surrounding towns. With rising numbers of rural migrants, providing accommodations become the responsibility of the local government to assist in industrial growth, and even became the criteria for the investment environment.

As mentioned earlier, the top decision-maker who manages a city business is generally the leader of the local government, who acts as an entrepreneur in balancing the housing supply and local development. Governing ability influences development efficiency to a large extent. In Jiangning, local residents acknowledged two people: Wang, a former Secretary of Party Committee in the Jiangning District Government; and Yan, a private real estate developer in Nanjing. Both made huge contributions to local economic prosperity. In the late twentieth century, Yan resigned from his job as a journalist and established the first locally registered real estate company for building affordable residences in Jiangning. The local government had no strategy for solving accommodations during the process of introducing massive industrial development. Due to their personal friendship, Yan initiated low-cost housing projects to solve the insufficient housing supply and in return for acquiring extremely cheap land at preferential locations at almost one tenth of the land price in urban areas. As the head of the district government, Wang, used all administrative means to support Yan in developing housing projects, as his affordable housing projects aimed to solve the housing, living, and amenities demands of employees who worked in Jiangning but
also achieved his own political success, without wasting the expenses of district
governments. Vast amounts of mid-rise apartments were erected in a beautiful natural
environment surrounded by large areas of lakes at cheap prices. The housing projects
rapidly drew vast amounts of local employees and were expanded at a larger scale to
meet the rise in housing demand.

However, large real estate developers were still not interested in investing in this
emerging market because the land transfer mode was not market-oriented, there was
a special coalition between the government and specific enterprises, which was
conducive to the formation of the suburban real estate market. The district government,
continually promoted cheap land with preferential locations to small real estate
developers to establish the land market. The preferential policy even authorised
implementing land development before paying the land lease fee to the district
government in order to help developers achieve progressive expansion. It is also true
that the land leasing process in that period depended heavily on personal relationships
between the government and real estate developers. Although cooperation between
the government and private developers was informal and hidden under market
circumstances, early suburban residential development was established in such an
institutional environment contributed the largest proportion of economic growth and
showed a long-term influence on the commodity housing development in Jiangning.
The informal and personal operation between government and private sectors to
achieve individual success was widely examined in the different aspects in the past,
illustrating a scenario whereby local governments required an identity and funding
from private sectors to promote suburban growth. At the same time, private sectors
were required to set up collaborative relationships with the government to manage
development projects successfully. However, such a mode refers to entrepreneurial
governance, which is rare in many studies on urbanised areas in China’s big cities
(such as Beijing and Shanghai). However, in terms of suburban governance, in
peripheral and rural-urban integrated areas, entrepreneurial governance represented
efficiency in meeting housing demand, without establishing an investment
environment, but it breeds seeds of corruption.
4.6.3 Massive demolition and requisition

Land development in China is achieved by housing demolition and rural land expropriation, which is indicated by a well-known slogan: “There is no New China without demolition”. Furthermore, the government has gradually shifted the redevelopment strategy from the urban core to the urban periphery, from a specific location to the extensive coverage of the peri-urban area (Wong et al. 2018). At the same time, the way of policy implementation has been changed to avoid the negative influence of the government. The work of demolition and requisition by the local government to enforce the implementation of state-owned real estate enterprises to achieve the results of voluntary relocation. This ideology was integrated into the development of Jiangning. Tremendous demolition proceeded between 2000 and 2010. Older urban residential land was altered to improve infrastructure, expand roads, develop large commercial complexes, and build urban green parks. Meanwhile, as a rural-urban integration area, massive urbanisation and the transformation of rural into urban land use comprised around 6.8 km², involving more than 70,000 rural households and 270,000 rural residents until 2010.

Under the model of relocating houses that cannot be redeveloped and expropriating rural construction land in return for urban construction land, housing rural residents and poor relocating residents was no longer an issue of local government concern, but the physical upgrade of spatial pattern to demonstrate a modernised form was, because the government infrastructure projects has a significant role in promoting the growth of urban land value. Indeed, from the government’s point of view, it provides low costs of affordable housing for relocating residents in urban fringe areas. Such an approach does not only effectively solve the urban-rural dual structure, but also promote the urbanisation process. However, by compensating relocating residents generously, some relocating residents squander their compensation within a few years.

In order to avoid the negative social impact caused by the direct cash compensation policy in the past, Nanjing municipal government proposed a new method. Individual homebuyers are able to borrow from the Housing Provident Fund. There are different standards of relocation compensation, the amounts of compensation for resettlement
or a number of additional homes immediately provided a large number of housing supply as well as commodity housing demands in the urban peripheral area. Residents who used to live in the central area benefited from the process of urban regeneration. Selling or renting out redundant homes became a way to increase capital, which gave them a greater role in shaping the suburban real estate market.

Meanwhile, most relocated households choose large suburban apartments as compensation in exchange for their smaller, older urban homes due to the difference in housing prices between urban and suburban areas. Housing compensation is also used to force the poor to move to the suburbs. The municipal government in Nanjing provided various types of compensation for relocating Jiangning District’s rural population. Rural residents could choose replacement housing in the new town and become able to acquire urban hukou in order to receive more social welfare and minimum wage income, as the benefits make it easier for them to obtain urban job opportunities, while also providing convenient living locations to continually work in the agricultural sector. However, as some villages had plans to develop urban agriculture in the wake of massive suburban land development, local governments contributed funding to boost villagers’ housing conditions and infrastructure in order to help them obtain investments more easily. Although there are different compensation policies for low-income, urban and rural relocated residents, people generally choose housing as compensation due to their optimistic view of the suburban housing market.

Although some suburban developments are urban regeneration projects, the huge amount of land for new growth in Jiangning has relied deeply on transferring rural land to urban land use. From 1995–2015, the area of built-up land reached 200 km², and most of the land was obtained through land use transformation and purchasing farmers’ homesteads. Some cases revealed the difficulty of demolishing farmers’ homesteads and relocating them to new settlements in the context of rapid urbanisation. While, this is not a problem in Jiangning because of the generous compensation policy for local peasants. In addition, certain public infrastructure development projects were required to raise the existing architecture on the ground for road widening or metro connection. Affected residents and enterprises have received huge financial compensation. Thus, rapid land development in Jiangning also
necessitated government sectors and private developers making a huge economic promise to local peasants.

Meanwhile, local governments made great efforts to solve housing shortages for blue-collar workers, yet it was difficult for real estate developers to make a profit when the consumers comprised low-income social groups. Only workers in management positions were barely able to purchase homes. Real estate developers therefore invested small flats that focused on urban and locally relocated consumers. Many people were concerned that, “The project will certainly face huge difficulties in making a profit” (Interview, P3). Meanwhile, local governments understood these concerns and spoke to developers and the public several times, promising “they would fully support the project and would not allow such a problem to happen” (Interview, D2). This official support raised confidence in investing, as well as the expectations of developers and housing consumers. Although this low-cost project was created to solve basic living functions, and the shortage of amenities and public facilities led to a high vacancy rate, evolving, small-scale living installations included small restaurants, mobility roadside eateries, and entertainment clubs, all of which formed a rural-urban, integrated landscape described as the very beginning process of an urbanised rural zone.

Yet how do governments supply sufficient land volume along with rapid urban expansion, and what kind of mode can guarantee the interests of relocated residents, but also earn a profit from land development? Apparently, Jiangning has its own unique mode that combines a sustainable mechanism of land supply and an efficient operation of demolition. The mode is exclusive as the core determines a share of beneficial mechanisms in land development on both sides between the government and residents. The specific approach is to mobilise government agencies, and to form an alliance with economic organisations at the neighbourhood level. Furthermore, to ensure a common interest of sharing profits from land growth, local residents and collective economic organisations formed a cooperative relationship based on mutual respect to protect each other’s legal rights and interests by signing legal documents with regard to compensation and land ownership transformation. In order to expedite
urbanisation, the State Council passed a new regulation on house requisition and demolition, and enforced local governments’ right to order demolitions in court in 2012.

This kind of mutual, supervised, and restrained relationship between the government and residents through the involvement of the court form a voluntary will of house requisition and demolition, which eventually sped up land development. The model refers to the power and fiscal decentralisation in land development, which gave Jiangning more flexibility in pursuing a competitive position while ensuring the legitimate rights and interests of local residents. A large surplus value of land development was transferred to local peasants and the collective community, boosting the growth of the collective economy. Local peasants become wealthier during demolition and house requisition. Significantly, the community plays a dominant role in house requisition, rather than the government and private developers, which transfers the motivation from passive to voluntary relocation. Due to this, such a mode greatly reduces the transaction cost and time required in house requisition and enhances governing efficiency. Urban growth coalitions constituted by local governments, rural collective organisations, and peasants form via a win-win mechanism in massive land development which does not only deliver a sufficient land supply through tremendous residential expansion but also meet diversified housing demand. Large-scale industrialisation and urbanisation provided new job opportunities and reduced urban living concerns for rural inhabitants, thus stimulating the housing market in Jiangning in the sense of rural-urban integration.

4.7 Conclusion

Massive suburban development in China was created by rapid land use transformation and spatial reconfiguration following the establishment of a land market. Emerging suburban growth, dominated by practices and policies, represented a top-down program of transforming suburbs from state-led, industrial, productive spaces to market-oriented urban districts. China’s economic reform has led to a range of new conditions for suburban development. Firstly, with the establishment of the land market, land became an important resource for local governments to generate
revenue and attract capital investments. The rise of suburban expansion strongly depended on how local governments boosted economic growth by raising land value. Since 2000, a series of land control policies has restricted extensive land development, while posing new challenges to local governments. Secondly, formerly intensive land development, characterised by fragmented development zones, is adjusted by rural-urban integration. Thirdly, rapid economic growth in the first two decades after reform created a large number of migrants and population growth. Market-oriented land development has to confront growing housing demands and the urban population.

The new round of suburbanisation, symbolised by the urbanisation of rural areas, was launched. By analysing Jiangning District’s development process, the new approach for sustaining economic growth and rising urban capacity has been successful, which shows entrepreneurialism. Firstly, the municipal government posed a new urban development program of diversifying Nanjing’s urban functions to accept urban competition with other cities. By using its central authority, Nanjing expanded itself as a metropolis to reinforce its urban influence on surrounding areas. After studying successful experiences from Shenzhen, the municipal government expanded its administrative boundary to acquire more space in order to re-organise its economic activity. Furthermore, by adjusting the town surroundings into a metropolitan development scheme, and by upgrading local manufacturing industries to achieve comprehensive economic growth pole, the new economic growth poles receive contributions from existing industrial development and frontier innovation industries. More importantly, they process rural land transformation to acquire urban land for real estate development.

Secondly, local governments put great efforts into improving infrastructure and transport systems to enhance commuting conditions between the urban centre and the suburbs. Thirdly, in order to support the scheme, the local government launched a series of strategies to favour economic contributions, including the aspects of planning, land leasing, the development system, industrial development, and population growth. Unlike previous development strategies, the municipal government attempted to establish preconditions for a booming land and housing market in the suburbs. On the one hand, the strategies strengthened the integration of employment
and residential land use in the suburbs in order to raise local revenue from land development; on the other hand, attracting a range of investments in industrial growth aims to facilitate both industrial expansion and housing development at the same time. Preferential policies for service industrial development not only help to alter the economic structure but also to expand suburban capacity.

At the district level, Jiangning District governments modified the development environment to cooperate with the municipal level. In terms of optimising the institutional environment, these adjustments usually manifest in legislation and regulations, preferential land policies, and altered plans. On the one hand, improving the institutional environment not only enhances rural residents’ income level, social welfare, and housing security but also converts farmers’ land into urban land for commodity housing development. Secondly, the urban competition strategy is implemented at the neighbourhood level. By executing the urbanisation of suburbs from different angles, land value has been raised by changing the investment environment, which helps to absorb different kinds of potential residents including local natives, migrants, and residents from Nanjing. In other words, land and property development become a main source of revenue and helped to cover the expenses resulting from land acquisition and infrastructure construction, as well as other public expenditures. Based on previous actions designed to serve real estate development, along with the enhanced investment environment, the district government directly invested in the expansion of mega-projects, and encouraged private sectors to boost the growth of the real estate market.

Suburban development is also facilitated by a new mode of governance that is due to decentralising power from the municipal government to local sectors, thus forming growth coalitions. This new relationship is propelled by common interests with participating sectors, as well as by urban competitiveness to a large extent. On the one hand, the municipality retained the decision-making power to promote growth at a regional level by intervening in the development process to observe the implementation of the top-down strategy; on the other hand, the ability to be autonomous drives the district government to cooperate with private sectors to achieve their own expansion. In this mode, government-sponsored private sectors
often play an important role in shaping the form of the suburbs. However, such a mode referring to entrepreneurial governance is rare, as it represents efficiency in addressing urbanisation and housing demands, but might breed seeds of corruption.

More than thirty years of rapid urbanisation and industrialisation spurred the suburban fabric to rapidly emerge. The exclusive, local socio-economic and institutional environments have significant influences on suburbanisation. Although the institutional environment resulted from the top-down strategy, the crucial factor in determining local development involved the ambitions of local decision-makers and the method of turning policy benefits into economic growth. The transformative institutional and socio-economic environments can be summarised based on the following points.

Firstly, primary industrialisation caused massive population relocation and produced labour-intensive, low-skilled production that established the demands of developing a new economic structure. Afterward, rising from labour-intensive production to high-skilled and high-wage enterprises led to the demands of infrastructure and environmental improvement.

Secondly, economic growth was the main purpose in designing the policy at different administrative levels. Local governments guarantee the power of the market in addressing development issues, while the central government intervenes in the development process and initiates the strategy as well.

Thirdly, by adjusting urban planning and preferential land policies, the central government sequentially leased the land quota to supply local governments, which demanded land for urban productive services and public facilities. Meanwhile, state-led urban growth coalitions play a dominant role in coordinating municipal urban regeneration and state-led rural-urban integration, in order to rapidly turn suburban industrial zones into multi-urban, functional districts.

Lastly, suburbanisation in China represents a planning attempt to create more spaces for urban development to a large extent. The dimension was raised from a county and transformed into an urban district. Small-scale suburbanisation was reflected in the
involved sectors; it is not only dominated by government sectors but is also usually reflected in the ambitions of local government leaders and government-sponsored private sectors.

In sum, this chapter shows that suburban development in China is driven by state-led urbanisation and market-driven mechanisms, and coordinates urban planning through the efforts of promoting urban growth coalitions, in order to create a new kind of suburban spatial production (Zhou and Ma 2000). Meanwhile, the process has led to significant achievements, which also resulted in major defects. The strong local government ambition is efficient in terms of boosting economic growth, but also has demolished the existing spatial fabric and refused public participation. Meanwhile, the reconstruction of suburban space, caused by massive housing demolitions, established urban social spaces and relevant production spaces. Therefore, such a process, in its unique path, complies with China’s institutional and socio-economic environments. Pertinent empirical examples still need to be observed and researched.

In the following chapter, the suburban residential forms created by such a process are analysed to illustrate a trend of heterogeneous suburbanisation for global suburban theories.
Chapter Five: Heterogeneous suburbs: Diversified development

5.1 Introduction

As a metropolis, Nanjing has been incorporated into the strategy of regional development through urban expansion and improving urban functions and influences. The urbanisation rate is increasingly rising, which is not only reflected in industrial land use but also mainly demonstrated in residential spaces. The feature of “distance decay” has emerged prominently, which is mostly related to diverse land uses and functions. In other words, urbanisation in Jiangning is strongly linked to rural migrants moving to the urban zone. With the expansion of the manufacturing industry in the region, the income gap between the manufacturing industry and the agricultural sector has widened. Thus, rural labourers are drawn to manufacturing companies, including locals and migrants from other places. The population concentration and increase in income, as well as the stability of the job environment, formed a huge demand market in order to propel the expansion of infrastructure and the development of real estate.

Undoubtedly, the rise of Jiangning as a suburban settlement was difficult to achieve without a large population movement and investment on service sectors such as educational, financial and commercial investment. Following the introduction of land market, land began to acquire an exchange value, the suburban frontier began to attract huge real estate development, and hence residents. Nevertheless, there are further significant factors beyond the establishment of a market. Suburbanisation in western countries is often underpinned by coalitions between private business groups and public sectors and their pro-growth agendas (Logan and Molotch 1987).

In the United States, growth coalitions are characterised by the dominant role of the private sector as local governments rely heavily on business interests. Suburban development is now witnessing an increasingly widespread form of private
governance in the form of gated communities or edge cities (Garreau 1991, Blakely and Snyder 1997). In Europe, the state exerts the most influence in organising the urban growth machine (Harding 1991). With the exception of some examples in the UK, business interests on the urban edge have little influence on local issues and are subject to the political consideration of local politicians. Furthermore, authorities at a higher level have a greater role in structuring suburban governance (Phelps et al. 2006). In the case of Jiangning District, suburban residential growth contains mixed features of urban and suburban forms. Although complex suburban spatial forms during rapid urbanisation embody a commonality of pro-growth coalitions among a range of interests in facilitating suburban expansion, the residential form revealed self-evolution characteristics. Significantly, the middle class moving to the suburbs signals suburban residential development in theory. The state’s urban entrepreneurialism played a crucial role in initiating and facilitating the growth machine. However, this argument seems difficult to explain distinct forms of suburban settlements in China.

Therefore, this chapter describes the development of large-scale suburban estates in the newly suburban Jiangning District. Through a systematic scrutiny of diverse suburban residential types, representative residential neighbourhoods have been studied in depth. The roles of the state and market are mapped by residential typology. For each category, this chapter attempts to reveal how the residents eventually ended up in these estates. The governance of these estates continues to reflect how they were initially built, leading to quite different suburban worlds. This chapter argues that the theoretical generalisation of the modalities and mechanisms of suburban governance (Ekers et al. 2012) has to be enriched by unpacking the typologies of suburban residential spaces at a much finer scale. Both suburban patterns and population compositions are more diverse than what has been traditionally imagined. However, the diversity of spatial forms of suburban homes varies with market demand, residential preferences, and consumption. Furthermore, the diversity of the suburban population composition varies by distance from the central city and the income levels of residential neighbourhoods. The diverse elements of suburban residential growth can also be found in the motives of various groups.
5.2 The rise of heterogeneity in Jiangning District

5.2.1 Heterogeneity in improving functions

The emergence of heterogeneity in Jiangning District is related to its transformation from an industrial town into a multi-functional urban area through changes in its development strategy. After the mid-1990s, in response to strengthen the autonomy in managing fiscal revenue at local government level, the Nanjing municipal government further decentralised both fiscal and administrative power to its district governments. In terms of searching for their own solutions to raise fiscal revenue, they adopted improvements in the suburban landscape, which were implemented in the context of increasing urbanisation.

The “Modernised Urban Space” gradually replaced the endeavour of “Increasing Urbanisation” through the Thirteenth Five-Year Plan. This is because as far as rapid land development and function transformation go, local governments and planning sectors found that the expansion of urban areas does not bring about the corresponding economic growth rate in accordance with Nanjing’s requirements for building a high-quality city, implemented in new town development in Jiangning. Literally, the quality of landscape was required to be form in modernisation, ecological friendliness, and intensive, especially demonstrating in land use efficiency.

In search of diversifying functions based on their own ability, the Jiangning District government grasped the gist of successful land management: it had to convince investors and homebuyers of the district’s promising future. This required a distinct image from its industrial past. Therefore, from the outset, planning and urban design were regarded as the first and foremost tasks. In 2000, when Jiangning District was selected by the Jiangsu provincial government to be the key site of suburban new town development, the Nanjing Municipal Planning Bureau (NPB) and the Jiangning Planning Bureau (JPB) were chosen to jointly implement the master plan. Two bureaus were required to prepare a strategic plan for Jiangning’s entire 1,561 km\(^2\), as well as detailed urban design schemes of 71 km\(^2\) for the central business district, and 182 km\(^2\) for the residential district.
Overall, the final plan envisioned Jiangning as a comprehensively functional urban area that attempted to transform the pattern of economic and spatial development, encouraging the expansion of land use in diversified dimensions, with a focus on improving the efficiency and quality of land use. The plan aims to strengthen city-industry integration by balancing industrial development and supporting facilities. Upgrading manufacturing industries will be changed to tertiary industries as the pillar of the economy in future new town development by forming industrial-oriented, business-oriented, and leisure-oriented towns. At the same time, the scheme initially identified Jiangning as “a liveable sub-city with a beautiful living environment” and “an innovative, service-oriented, pivotal, opened-up and ecological city.”

This signalled the strategy of “Six Insistences” from the central government, which was fully implemented in the overall master plan. Under such circumstances, the municipal government attempted to build Jiangning on a metropolitan and regional scale of capital flow. The diverse population structure was reformed, especially in terms of high talent and innovative practitioners, as well as settling residents down; these endeavours became crucial tasks in operating land development. For example, strategies for innovation, talent, coordinated development, environmental sustainability, comprehensive opening-up, and liveability demonstrated in the development of suburban and new towns. For example, Jiangning’s Village Environment Renovation (VER) and Beautiful Countryside programs were widely processed to accelerate rural-urban integration, and to enhance the employment environment of villages as well. With regard to industrial growth, Jiangning contributes to the economic expansion of the entire Nanjing metropolitan area. As far as urban development is concerned, Jiangning aims to accommodate Nanjing’s population growth. Above all, the local government aims to function as “the comprehensive and diversified industrial hub of Nanjing” and a “node city in the south-west of Nanjing and Anhui province.”

By the end of 2016, urbanisation in Jiangning had risen to 72%, up from 68.1% in 2011. The comprehensive urbanisation rate was 62.1%, an increase of 39.9% from 22.2% since 2000. The non-agricultural and migrant populations fluctuated significantly from
2002–11, indicating a diversified population growth in Jiangning. At the same time, the constructed land area was 110.78 km$^2$ in 2006; this figure increased to 365 km$^2$ in 2016, which rose to more than 3 times the land area. According to the 2016 Jiangning census, their total GDP exceeded ¥94.817 billion Yuan (approximately $15.05 billion USD), which ranked Jiangning as the richest district in Nanjing. Notably, rapid development has special characteristics whereby migrants become the dominant force for stimulating urbanisation and economic growth. The number of migrants has been on an upward trend for years. For example, from 2006–16, the migrant population accounted for 14.3% to 16.7% of the total population. That is to say, an approximately 2.4% increase per year resulted from the rise of the migrant population. Hence, the self-sufficiency of urban governance increased both urbanisation and spatial heterogeneity.

5.2.2 Heterogeneity in spatial development

According to the approach of diversifying spatial functions, the attempt to increase spatial heterogeneity occurs through mixing new residential and commercial growth with existing industrial and business areas. By researching the new round of Jiangning master-plan, the old downtown in the south-west would be (re)developed as an industrial zone, thus strengthening functional expansion and comprehensive support for facilities, and gradually forming the southern centre of the main city. Another old downtown in the south would be developed as a comprehensive regional sub-centre along the Nanjing-Hangzhou economic zone. Meanwhile, the layout of new town industries would be optimized to classify and promote the (re)development of small towns as places that contain technology, education, leisure, advanced manufacturing, and entertainment functions. The overall spatial layout is to turn Jiangning into a mixed-use urban settlement, with two business centres in the east and centre, respectively, surrounded by industrial new towns in the north and west, and university towns in the south.

Along with the completion of an express street network between Jiangning and other urban districts, the north-eastern corner of Jiangning – soon to be urbanised due to
being the closest site to the central city, which is transforming as the most densely populated town in the district. In terms of transport, the improved street system only benefited the wealthy class, who own private cars; public transit still falls behind. Therefore, the municipal government approved of the No. 1 Metro line expansion to address the travel problems of urban relocated residents. However, private developers sensed the upcoming housing boom before the construction of the metro. The plots along each planned stop of the metro line were developed into high-rise apartments with small units. Unexpectedly, these houses were sold to a large number of locals because the former housing compensation scheme made them extremely wealthy. The construction of metro lines led to a rapid increase in the population in the east of Jiangning. The data show that the housing boom promoted by mass transit and a state-led financial scheme not only drew large amounts of private investments, but also dramatically attracted many residents from other places. By the end of 2015, Jiangning had already grown to 1,183,607 residents with local hukou and received 684,820 new inhabitants, an increase of more than 151% from the number of residents with hukou in 2004, and a rise of more than 554% from the original number of inhabitants. As a result, the average housing price in 2015 was about 14,000 Yuan per square metre, an increase of more than 3.6 times that of 2004.

The building boom was largely spurred by the demolition of rural settlements, which were replaced by low-density residential growth. Previous rural residents were resettled into relocated clusters and compensated with huge amounts of cash. From then on, many real estate developers from Nanjing came to Jiangning, turning large tracts of land into low-density residential settlements. At the same time, district governments were busy transforming rural land into urban land use for industrial development, while real estate development also benefited from the large scale of investments in infrastructure and facilities.

Land resources drew the private sector to rapidly promote low-density estate projects with beautiful environments. The rapid growth of low-density housing development advertises a phenomenon for those who intend to fulfil a dream of villa homeownership. Better-off people purchased suburban villas as weekend homes to appreciate the
privacy and landscape due to underdeveloped rural farmland and scattered settlements.

Furthermore, because the master plan regulated the functions and density of land use, private developers soon targeted Jiangning’s southern corner, far away from the urban centre. They processed another new round of intensive investment in property to respond to the central strategy of urbanisation. The housing scale was designed to be much larger to provide better-off young families with the choice to own a decent home at a relatively affordable price. Massive settlements have emerged and are comprised of an emanative pattern. The pattern illustrates the spatial layout, which is transforming from an industrial suburb into an urban shape (see Figure 5.1). The image of a monotonic, low-density configuration underlying diversified urban projects has been formed. Among emerging developments, the distinctive feature is a massive green space replaced by a fair number of master-planned communities, including shrinking lakes and rivers. Due to the limited land quota, local governments and private sectors have to reclaim land resources from lakes to provide luxurious real estate projects. In addition to the intensive development around the existing landscape, many villages were eventually transformed into multi-functional urban forms to address the demands of industrial growth. Meanwhile, the homes of relocated households were built as high-rise clusters. Over a long period, Jiangning’s peripheral area developed an amount of high-rise buildings.
5.2.3 Heterogeneity in the development of commercial projects

Innovation was first implemented in mega-projects such as commercial complexes and shopping streets to form another shopping centre in Jiangning. The district government attempts to form another business district that can rival the urban centre through real estate investment, because attracting urban consumers and local residents is significantly helpful to gather population and enhance land value. Before 2008, the commercial centre Da Shikou was the most favourable shopping area for locals, while the commercial atmosphere was not strong due to having few brands, and the quality was relatively low. Thus, it was difficult to attract consumers from other places, which meant that apart from locals, people from outside Jiangning hardly travelled there. At the same time, Wanda Group, China’s largest commercial development property group, was building its own commercial complexes in major
Chinese cities. The Slogan “Wanda Plaza is the city centre” drew the attention of local governments. Across the nation, Wanda plazas were usually built in the urban centre or core area of the sub-centre, where surrounding social facilities are prominent. The plaza has four pillar industries (including the commercial, cultural, e-commerce, and financial industries), which not only provide large numbers of employment opportunities but also create huge and stable taxes.

Notably, as a state-owned real estate company in the past, five state-owned banks were backed by huge credit lines and loans. For example, less than $80 million USD in loans was approved by the state through a fast channel. Before negotiating with Wanda, plots of land had been chosen, and the existing settlements were removed to accelerate the process of investment promotion. Therefore, the district government set up development companies as its agencies to finance and organise with Wanda Group to form a new city centre in Jiangning by relying on their social influence and industrial support. After signing the contract with Wanda, the district government chose the Jiangning Urban Construction Group (JUCG), the Jiangning Transportation Construction Group (JTCG), and the Jiangning Landscape Construction Group (JLCG) to undertake state-owned infrastructure construction in order to secure and help Wanda raise initial funds via bank loans. The projects include resettlement housing, civil parks, and express roads that connect Wanda Plaza with Nanjing’s urban area. Wanda Group undertook 530 thousand m² of commercial projects, including a high-end shopping mall, business offices, luxury hotels, luxury commercial apartments, a city mall, and Small Office/Home Office apartments.

In effect, only commercial complexes were individually profitable. The state-owned projects were barely able to make a profit. According to the agreements between government sectors and Wanda Group, the ten years of revenue from the Wanda projects were stipulated to profit the state-owned construction group. This helped to create favourable conditions for different aspects of a booming real estate market. Altogether, they created an optimistic environment for property investment. Meanwhile, the development illustrated the different pro-growth coalitions of the local government with diverse actors, who were all engaged in tying their economic interests to the rise
in Jiangning’s land and housing market. These actors provided important sources to initiate these projects.

The government-led strategy was summarised as planning to relocate or built public amenities for welcoming real estate and commercial development in the form of a guarantee investment, upgrading the commercial structure as the method, introducing an urban lifestyle as the task, and encouraging real estate sectors to contribute (see Figure 5.2). The government mainly operated land management to receive profits. Since land was allocated as initial capital, a sustainable development strategy based on maintaining the growth of land value is considered a long-term return. Therefore, growth coalitions undertake their own tasks in order to promote the growth of land value for higher returns. For instance, in addition to undertaking the construction of infrastructure projects, the subordinate companies of JCUG and JTCG also responded to resettling existing settlements and acquiring collectively owned land in the area through land requisition. Afterward, real estate companies were directly in charge of flagship development and promoting their projects to different investors. Meanwhile, JLCG advanced green parks and landscape development to enhance the distinct environment. Next, district government leased the surrounding land to real estate developers to build residential projects and earn higher returns from the higher value of the land. In this way, the short-term goals of financing the project and generating land revenue, and the long-term goals of attracting residents and development a suburban settlement, were both met. During this land-based strategy change, the upgrade from the traditional manufacturing industry to real estate development was achieved through improving a better job environment to attract innovative industries.
5.2.4 Heterogeneity in housing supply and demand

Housing demand raised the average land price in Jiangning, which resulted from the growing cost of investments in small-scale suburban properties. Real estate developers have to build small-scale properties in areas further away from Jiangning to make a profit from the sub-division of the housing consumption market. Both young couples and migrants from other places are potential homebuyers. They are frustrated with the housing prices in the city. Most of them could not even afford decent properties in Jiangning. “While facing the issues of hukou and being of marriageable age, young migrants seem to have few choices in selecting the location of their new home” (Interview, U1). To increase the small-scale property value and satisfy the sub-division of housing consumption, real estate developers usually plan apartments close to low-density areas. As a result, many high-rise buildings were rapidly erected in the peripheral area. Considering the total housing price, properties were designed at a small-scale so that both migrants and young couples without children are able to settle.
down first in the city. Additionally, some investors bought these small-scale properties to rent out, while others left their houses empty and then sold them later on at a better price.

Figure 5.3 The demand and supply of suburban housing areas in Jiangning, 2015
(Data source: Internal report from Jiangning Real Estate Management Bureau)

The rapid growth of the housing market gave rise to increased housing demand in terms of further land development (see Figure 5.3). Thus, the municipal government implemented a housing control policy on the demand side, which restricted the amount of home ownership per person. At the same time, the rules of mortgage down payments and housing transactions were decided to significantly tighten in order to cool down the over-heated property sector. In 2011, the minimum down payment for a new apartment larger than 90 m\(^2\) was raised from 20% to 30%. Furthermore, the district government introduced a housing policy to intervene in small-scale residential development in 2011, stipulating a restricted hukou policy with regard to obtaining local hukou by owning a new property of less than 60 m\(^2\). This policy mainly targets young migrants who want to benefit from Nanjing’s welfare policy by investing in a small-scale home in Jiangning. Therefore, in 2011, the demand for small-scale homes
in Jiangning fell dramatically (see Figure 5.4), influencing young migrants to move to the suburbs. Furthermore, alongside restrictions on detached villa development introduced by the government in 2003, apartment projects began to increase and became the dominant residential form.

Figure 5.4 The supply and demand of housing areas in Jiangning, 2007-2015
(Data source: Internal report from Jiangning Real Estate Management Bureau)

Unlike villas and detached villas, apartments are similar to those already existing in the central area. Many real estate developers target the new middle class because the apartment market shows diversity and emphasises product differentiation. By restricting small-scale residential development, the polarisation of suburban residential forms began to embrace the middle class. By analysing whether an apartment of more than 80 m² is affordable for young urban couples, real estate developers turned their focus towards improving the residential environment, rather than previous profit-driven habits. Homogenously residential clusters were rapidly raised to attract young, middle-class families. Some projects deliberately mix apartments and townhouses, aiming to capture niche markets of middle-income families. In an effort to supply a beautiful environment, residents from Nanjing rushed to invest in the properties, keeping in mind the rise in housing prices (see Figure 5.5).
In sum, the rise of spatial landscape heterogeneity in Jiangning is represented by four aspects: showing heterogeneity in urban functions, spatial development, commercial projects, and housing supply and demand. The urban competitiveness and economic growth in urbanisation stimulated the attempt of local governments to boost land value through short-term investments in mega-projects, and to receive profits from long-term residential development. The strategy implemented in the industrial upgrade is another direction for attracting high-skilled employees and urban residents to enhance capital accumulation. “Supporting property development to diversify the industrial structure is regarded as a sustainable strategy to sustain the process of urbanisation” (Interview, U1). Materially speaking, the strategy was facilitated through the development of mega-projects.

From a practical angle, a new mode of place production was developed, which not only captured new sources of supply but also promoted governing capacities. Although short-term profits are mainly indicated as land revenue, state-owned projects were usually unprofitable, while the long-term goals of generating land revenue and
attracting investments in land development could be achieved through the growing housing market and relevant population movements. In short, the expanding spatial functions boost the growth of the housing supply and demand. As an urban space, Jiangning creates popular elements, such as a natural environment, modern living facilities, western-themed settings, and access to the metropolitan centre to satisfy residents’ demand for urban living. Taking different types of suburban settlements as examples, the next sections further illustrate the mode of heterogeneous residential development and how the whole project materialised under entrepreneurial governance.

5.3 Living in the suburban villa: The utopia of the affluent class

5.3.1 A symbol of the “good life”

Different housing forms are not only represented as personal preferences but also closely associated with different lifestyles. The “good life” refers to a large house with a large yard. Thus, developers always advertise their properties with aesthetic architectural styles and imagined “noble” lifestyles. With the intention of satisfying different preferences among members of the growing affluent class, villa housing with different styles is provided in the housing market. Meanwhile, developers are aware that spatial forms can transform lifestyles and eventually Chinese society itself (Wu 2010). The development of suburban villas has gone beyond the economic sphere and will reshape Chinese suburbanisation by creating different kinds of suburban lifestyles, as suggested by a real estate manager:

“The first phase of a project is developing suburban villas from 300–800 m² per household. We invited a design team from France to provide a pure European continental lifestyle for our homebuyers. Afterwards, the second phase of housing development will concentrate on large-scale apartments from 200–400 m² per household. (Interview, D6)

The reaction from developers clearly verified middle-class housing preferences as the suburban housing market expanded. Middle-class buyers who want to upgrade their
living standards by changing homes are provided with various high-end housing choices, as a suburban villa is considered luxurious in the increasingly stratified housing market. In the Chinese context, luxury housing has an atmosphere of aristocracy and is privileged. The density of suburban areas is planned and controlled, which results in a limited supply of villas. However, a larger living space is still a priority for homebuyers who wish to buy a home in the suburbs. In particular, along with the growing, younger nouveau rich in Nanjing, modern and luxury-serviced apartments with large floor spaces have become a popular choice.

Previously, homebuyers came to our showroom and the first question they asked was, “How much is one apartment?” Several years later, they began to care about the possibility of buying a villa and criticised our housing form and façade. Now we have found that villas are not the first choice for many homebuyers because they prefer larger apartments, rather than villas (Interview, D2).

However, suburban villas with large gardens remain the most common housing type in high-end suburban communities in Jiangning. Take the example of the suburban villa community “Top Regent Park Villa” (TRPV), developed by “Top Regent Real Estate” (TRPE), a company founded by Sun Yat-sen Mausoleum Authority (SYMA) and China State Construction International Holdings Ltd., HK (CSCI). TRPE indicated that their target homebuyers are exclusively foreign businessmen and affluent senior government officers by using notions of “power”, “luxury” and “exclusivity” to distinguish them from other types of suburban homebuyers (Interview, D5). TRPV was the first luxury suburban villa community in Nanjing before 1995. The emerging suburban villa community quickly drew the attention of the affluent class. Thus, developers announced that their properties had sold out a few months after construction. Nowadays, suburban villa communities account for about 9% of the total number of gated communities in Nanjing.

In recent suburban residential developments, the theme of exclusiveness is still used in advertising luxury communities, but with more selling points. Developers attempt to create higher quality living environments by using distinctive terms such as “low-density”, “greener”, “ecological”, “luxury”, and “liveable” (Wu 2010). The luxury
suburban villa community, built by private developers, was targeted at upper-class housing consumers as well as foreigners. They were erected along the lines of exclusive lifestyle enclaves, with condominium facilities such as swimming pools, club houses, restaurants, tennis courts, and other amenities (See Figure 5.6). Some housing projects even contain on-site schools and medical facilities that only serve residents. Overall, exclusive high-class enclaves emerged and have led to urban segregation.

Cultural elements are widely used to help produce fresh waves of newness and diverse niche markets, and to dazzle the populace with glamour consumption (Jameson 1991). The uniqueness of western-themed villas in China brings an image of the “good life” to Chinese households, which aim to change their lifestyles by changing homes (see Figure 5.7). The developer adopted this outlandish English name to create a suburban community with a sense of exoticism, but without any relationship to the true meaning. “The aim is not to refer to a western lifestyle, but rather to the households’ social status” (Interview, E4). Since pursuing a luxury suburban villa in China is an emotional experience through which homebuyers’ attempt to fulfil their aspirations to live a luxurious western life, the names of suburban luxury communities like “Master Land Villas” need to be constantly enchanting, with symbolic meaning. Buying a luxury suburban villa is also a socially embedded process, which gives the Chinese nouveau rich a way of establishing their identities through a distinctive lifestyle (Zhang 2012).

Since 1995, due to the popularity of “Top Regent Park Villa”, the developer has tried to bring so-called “themes of affluent, elegant taste” - antique collections, paintings, and wine - into suburban villas. The practice attempts to distinguish their real estate project from previous ones, which only use natural landscapes and high privacy. The intention is to satisfy the housing demands of a rising affluent class by using their luxury suburban villas to show that they are not only wealthy but also have taste. Therefore, despite using Italian architectural elements in the housing forms, other cultural symbols and slogans from the imagination of the European lifestyle are also put into brochures. Meanwhile, the developer sets up a series of cultural events for
selected affluent homebuyers. However, this strategy is not always successful, as one homebuyer remarked:

I believe that “Master Land Villas” is the best luxury community in Nanjing right now as the architectural form and interior design are very similar to what I saw when I took a tour of Europe last summer. I have seen many villa communities in Jiangning, but they are just luxury houses and not my taste. (Interview R_M2)

Figure 5.6 A homogeneous villa-style suburban community in Jiangning

(Source: Photo by author)
In terms of the economy, district governments, developers, and financial institutions are interested in pursuing high-end residential projects. Driven by political achievement and fiscal income, municipal and district governments enthusiastically keep on selling suburban land. Homebuyers aim to sustain their capital value by seeking and purchasing high-quality housing in the suburbs. Thus, the combination of the above factors leads to the construction of suburban communities. Furthermore, high-end suburban residential development brings huge profits from land expansion, leading to a lack of housing for young families. Banks and financial institutions lend money to developers to make a profit. Bank loans are a major source of funding for suburban residential development. Mortgages are low-risk, which increases housing prices. As explained,
In fact, the government encourages us to develop high-end communities. They are more willing to sell the land to a high-price project, which helps to boost the price of surrounding land. Sometimes, we have to promise the government the lowest housing price in our residential project; otherwise, they will not lease the land. The government aims to raise the land price and make more of a profit in the process of land leasing. We cooperate with a selected bank and help homebuyers to get a mortgage from the selected bank. The bank is willing to lend money to us for high-end residential development as they earn more profit from both sides. (Interview, D2)

5.3.2 Naming projects

China has a long history of studies on naming, and there is a widely held belief that a name determines a person’s fate. The practice of naming estates is nothing new. With the development of the market economy, competition in the real estate market is becoming increasingly fierce, and the name of an estate as a trademark and the performance of real estate are valued more and more by developers, governments, and buyers. Each real estate development project has its own case name, which reflects the marketing approach of developers. The name of the estate not only reflects the socio-economic class and environmental characteristics but also the exotic atmosphere and implied culture, giving homebuyers a psychological suggestion.

At present, estates that combine the names of developers are most common. Usually, a development company’s name is assigned to an estate as a prefix. This strategy indicates the growing confidence of residential quality, and the strategy of promoting the branding effect, which can also realise the brand’s chain action to some extent. Combined with the name of the developer, the strategy can add quality to the estate and expand its social influence. Developers adopt “western names” and “ancient Chinese themes” to entitle residential projects, rather than use ordinary names (See Figure 5.8). A survey from NetEase Estate - a research department for real estate under one of the largest internet companies in China - analysed 54,069 homes and summarised the frequency of different names. Project names that include the term “international” emerged 3,116 times, followed by “sunny” 656 times, “splendid” 284 times, “happiness” 233 times, “golden” 189 times, and “literary” 111 times.
These naming strategies were planned to target homeowners’ preferences; for example, real estate developers believe that “professors and scholars’ families prefer the name of their community to contain a literary sense” (Interview, E4). Besides implying cultural elements, the names of residential forms are also distinct, although the actual forms of homes are similar to those mainly presented as villa types. As for attracting wealthy homebuyers, real estate developers barely use the term “community” to name their projects. Changing the name may instantly create a high-end impression. Whether there is a real garden in the community is doubtful. For instance, using “garden” in the community name emerged 2,692 times, “residence” 1,180 times, “mansion” 625 times, “hall” 525 times, “Deluxe Manor” 373 times, “manor” 247 times, and “mountain villa” 241 times. Naming a project usually indicates a promise that the buyer will imagine his/her future lifestyle according to the name of the estate. Developers not only wish to form the consistency of the name and the function of their project but also to ensure that the information that passes from the name to the homebuyer matches the actual position.

Other names include “mansion,” “estate,” “hall,” and words for more luxurious suburban residences. “Garden,” “home,” and “court” are ordinary residences. “Building,” “centre,” “plaza,” and “square” are mostly commercial, high-rise residences. If a luxurious villa project is called a “residence” while affordable housing is called “luxurious,” the strategy easily results in developers losing credibility. Living in a villa as a symbol of successful socio-economic status, an aristocratic name makes residents feel a sense of glory and pride. While, adopt the term “Garden” as the name of an up-level community not able to satisfy the psychological needs of the wealthy families who require respect and recognition from society because it has been widely use. In sum, the pursuit of internationalisation, of luxury, and emphasising the landscape are the three major strategies in naming and branding suburban estates.
The name of a project also embodies the value-added investment potential. Creating settlements and persuading housing consumers to move to Jiangning are not easy tasks for developers. When investing in a particular project among high-end suburban settlements, in addition to the “investment potential” that developers emphasise, homebuyers also value the branding strategy, whereby their estates can potentially attract the attention of the neighbourhood. Thus, the branding effect and popularity of developers become particularly important. Naming a suburban residential project is significant to suggest the social status of residents in Jiangning. The importance of
branding the name of a residence is one of the key points that led to spatial heterogeneity (Wu 2010). In fact, both developers and households argue that the adoption of particular name, labelled on the portal gate, can be transformed into a form of living, as well as a physical form. This could eventually be reflected in the status of neighbourhoods. As a previously residential form in the planned economy, the name is directly adopted based on the status and occupations of the residents, such as “Workers’ Village” or “Teachers’ Village.” Living in homogeneous settlements can enhance one's sense of belonging and comfort. Therefore, living in a new type of suburban residence is not only to improve the living conditions but more importantly, is to reflect a reconfigure form of social life.

5.3.3 Gating projects

Villa-type suburban residences in Jiangning usually have an elegant, exotic gate, but the gate’s function goes beyond security reasons. More importantly, to create exclusive residential spaces starting from the gate, luxury residences in the surrounding suburban spatial pattern can be consciously isolated. However, the master plan intends to make Jiangning into a heterogeneous society, while real estate developers take the opposite stance. The market-driven ideology is eventually represented by creating a “bourgeois utopia,” as well as transforming the project to represent the efforts and intentions of the real estate developer. The scale of the gate is often larger than ordinary residences, as it also intends to create an imperatorial impression, thus reflecting the emerging class differentiation in Chinese society. Therefore, in addition to the unusual name of the residential project, the gated settlement of a luxurious villa community is usually represented by a sense of exoticism and magnificence.

The gate design attempted to create a western living environment, as it symbolizes wealth for most Chinese people. Residents are willing to see a distinct entrance of their residential area and show off to the outside community. For example, the gate at Master Land Villa was built in a Romanesque style (see Figure 5.9). French sycamore trees were planted beside the columns of the gate; an artificial fountain stands in the
middle of a long walkway to the gate, in total creating a similar impression of the gate to the main quad at Stanford University.

Notably, combining the high-hanging arch with the steel-made gate not only leads to a sense of being unapproachable but also creates a sense of high security. Master Land Villa is gated and controlled by a young, professional security team. Furthermore, 24-hour CCTV monitors the entire community. Access to the community requires a security pass or fingerprint. Furthermore, security has the right to refuse visitors who attempt to enter the neighbourhood without an appropriate reason.

Potential homebuyers are required to provide at least a funds certificate with 2 million Yunan in order to have viewing access. Our homeowners include television stars, celebrities, basketball players, and some entrepreneurs. Therefore, protecting the privacy is one of important tasks for managing this community (Interview, E4).

The entrance of a luxurious villa community is not pedestrian-friendly. The driving entrance is designed for residents; the staff members of the property management normally use the walk-in entrance. Firstly, such a design reflects the consideration of households driving as the primary mode of transportation. Secondly, the way to access the villa community is from the households’ private parking lot, so it cannot be seen by others to ensure households’ privacy and security.
The style and security level of gating reflects the ability of property management, which is an important factor for gauging the investment potential of luxurious properties. In order to maintain the growth of housing prices and promote housing privatisation, real estate developers regard the gated entrance as one of the most intuitive measures for forming a housing environment with investment potential. Furthermore, such a strategy is in line with the demands of the local government, which uses Jiangning as a place to accumulate capital. An architect spoke about the approval process of proposing a design:

We attempted to make good use of every piece of land for more profit. Building a long driving entrance, placing a high-hanging arch above the gate, and planting sycamore trees along both sides of the road rapidly increased the cost of the project. However, the local approval department has its own considerations. They hope that the Master Land project can be a landmark in Nanjing, reflecting a unique living environment that can only be found in Jiangning (Interview, D6)
The market-driven approach satisfies the safety, privacy, and residential preferences of wealthy households. Government sectors encourage it to reduce investments in urban landscape management. An open community forms to increase the local government’s investment in the security and landscape of residential areas. Due to a large amount of land being leased and the high frequency of land bidding in Jiangning, the local government cannot afford to maintain the environment and security of residential zones, especially for those who demand high-quality living standards. Boosting the high value-added housing market, as well as providing a safe living and distinctive residential environment for affluent families, has become a priority for the local government. Transferring the cost of community governance to real estate developers and paying for privacy, security, and vanity from high-income families is the driving force behind the rise of gated suburban settlements. Since 2002, all real estate developers participating in the auction of land leasing for residential use have been required to provide initial design plans to the JPB and the Jiangning Land and Resources Bureau.

Development rights are obtained by the developer that bids the highest price for land leasing, which results in an increase in the cost of the land transfer, pushing real estate sectors to pursue high-end suburban residential projects. In addition, the final design needs to be approved by the local planning bureau and other local government sectors (Interview, D3). During this process, the gate design does not merely involve the market approach; more importantly, the local government plays a significant role in determining the forms of gated settlements. By strengthening its administration during planning and land leasing, while transferring the cost of residential management to real estate, the local government attempts to encourage housing privatisation, which is an approach to stimulate the growth of the suburban housing market (Interview, P2). An increasing sense of privatisation drove villa and high-end residential households to pay more attention to gated components.
5.4 Living in an apartment: The club realm of the middle class’s common interests

5.4.1 A self-contained lifestyle

Besides luxury residential projects, major suburban homes emerged in the form of apartments, which are targeted towards middle-class families that want to have a new home to settle down before marriage. In order to build the foundation for a middle-class living environment and to retain young graduates who wish to settle down in Nanjing, the municipal and district governments encouraged real estate developers to erect rigid housing projects. Thus, commercial apartments have become another common type of suburban settlement, accounting for about 56% of all suburban homes in Nanjing. In order to meet the large housing demand, apartments are mainly developed as medium and high-rise condominiums. The number of apartments ranges from hundreds to thousands, depending on the scale of the land plot.

In terms of different housing demands, large units serve families who require large living spaces, while smaller apartments attract young single households who wish to buy properties before marriage at an affordable price, as owning a home before marriage is a social traditional consensus and reflects a household’s stable economic status. However, small units in suburban apartments are not always cheap because the services and facilities of middle-class settlements are covered under the housing price, whether visibly or invisibly. Such an approach usually shows in the pricing strategy, whereby larger units have a lower price per square metre and smaller units have a higher price per square metre. On the one hand, suburban service-apartments raise the property value at the promotion stage; on the other hand, the proportion of developing small units in a residential project is regulated above 50% of all units by the district government, according to the state policy from mid-2013. Therefore, due to being profit-driven, real estate developers in Jiangning built different areas of apartment units at separate phases, providing large units during the initial stages to attract the wealthy middle class and form an affluent neighbourhood, after promoting small units during the second phase of project development. The main purpose of this tactic is to attract suburban housing investors to raise the property value, and then
promote small units to homebuyers who have rigid housing demands for more profit returns. Although land remains relatively cheaper during the stage of land leasing in Jiangning, intensive development of amenities and facilities raises the suburban property value, showing a substantial profit. Therefore, the district government required emerging residential projects to develop commercial functions on leased land in order to reduce the cost of land expansion.

To promote a new lifestyle that is labelled as self-contained, several large-scale development of condominiums were built together and enclosed by a wall as a settlement quarter, showing the form of a community. For example, Vanke residence in Jiangning is a typically crowded middle-class enclave with various facilities and amenities, including a natural lake of 1.67 km², two shopping centres, five gyms and spa clubs, car-free shopping, entertainment, a community hospital, an art gallery, two public schools, and more than 30 hotels (see Figure 5.10). The entire enclave is divided into five clusters; each one is isolated so that only households are allowed to enjoy their own facilities. Such large-scale development was uncommon in recent development, yet has become essential to homebuyers to meet the growing demands of enjoying a convenient urban lifestyle. Real estate projects include amenities and commercial functions, which has drawn investors’ attention. Living in the district does not mean that these households escape the urban lifestyle; rather, moving there reduces the cost of owning a home in Nanjing while discovering a whole new dimension of life in Jiangning (Interview, D1). Therefore, providing professional estate management services has become essential. Apartment units are fully or partially furnished because a fully set up suburban home further reduces the cost of moving in terms of time. The layout is distinct from an urban apartment as well, with larger bedrooms. This approach reflects the demands of young, middle-class people who wish to pursue a convenient, fast-paced lifestyle:

A one or two-bedroom apartment is our best-selling type. The price for each property has already covered the furnishings and decoration. The bedrooms are larger than similar properties in the market, as our households do not always stay at home. Meanwhile, there is a reception desk in each building to provide package sending and
receiving services. Furthermore, a 24-hour steward will be in the lobby for any assistance needed. (Interview, E3)

My husband and I moved here two years ago after we married. The price was 10,000 Yuan per square metre, which is affordable for both of us. We decided to move here because the new home was already furnished by the developers, which saved us a lot of money. (Interview, R_M3)

Figure 5.10 A middle-class gated community, Vanke Paradiso

(Photo shows a typical form of high-rise apartment for middle-class)
Source: Photo by author

In order to sustain a self-contained community and to acquire long-term profits from property management, a relatively homogeneous society is seen as one of the draws of a suburban apartment. A remarkable case is Jiangnan Wenshu, the first suburban settlement in Jiangning and the units were mainly sold to professors and scholars. It was a crowded, branded suburban enclave with urban facilities. The slogan “Have
professors as your neighbours” was fascinating to middle-class homebuyers who prefer to have scholars for neighbours, and enjoy equal social status and the value added living environment. Furthermore, the built-in amenities included a residents-only gym, a swimming pool, enclosed private parks, a daily market, a dry cleaning shop, and a post and delivery centre. A property management company privately ran the facilities and services in order to ensure long-term operations, as well as maintaining order. However, such amenities were lacking outside the community for public use, as the surrounding land plots were planned for another residential project. Therefore, Jiangnan Wenshu is more like a club realm of common interests (Wu 2010), as the form is prepared to service a convenient urban lifestyle in an enclosed settlement in the suburban zone.

This approach referred to the idea of developing new towns in which homeowners prefer the comfort of having an ethnically homogeneous society as a rural enclave. The urban facilities were expected to only serve to the households as their exclusive living preferences. Yet the differences of such self-contained living also refer to the residents’ reasons for moving. Evidence confirms that households’ reasons for moving are diverse; the majority of cases are not due to the preference of living with neighbours of the same social status. Family and work unit connections play an important role in forming a club realm of common interests. According to one resident remarked: “Living with my mother-in-law’s family in the same community, but not in the same unit, is very pleasurable. We can gather together every day, visiting and looking after them occasionally, which makes life wonderful” (Interview, R_D1).

The interviewees also said that work unit connections impact their reasons for moving, as housing subsidies from state-owned companies offer them the chance to own a suburban home at a lower cost: “The neighbours in this community were my colleagues at university, and the apartments we are living in are part of our welfare, as the new university campus moved to Jiangning. The restaurants and facilities here are operated by the university as well” (Interview, R_M3). Another participant indicated, “The sense of belonging is important for quality of life. Moving to a community with a friend fulfils the possibility of increasing collective activity” (Interview, R_D2). As mentioned above, middle-class suburban settlements do not often form collective
interests. The growing demands of privatisation and exclusion in the context of economic inequality are significant as well. On the one hand, the layout of an apartment enhances a household’s sense of privacy; on the other hand, the form of a gate improves the exclusivity of the society within and outside the settlement.

In sum, the district government encourages emerging, self-contained suburban settlements because this helps to build the foundation for a middle-class living environment in Jiangning, and to retain young graduates who wish to settle down. The self-contained living form, developed by private capital, also helps the district government to reduce the investment of public funds in land development. In terms of private developers, promoting such a form is a marketing approach that conveys an image of the suburban lifestyle to the middle class. Firstly, besides attracting suburban property investors, forming a wealthy and sustainable living environment can create more profit returns for developers when the property value is raised, even when housing demands are rigid. Secondly, long-term property management returns come from the ranges of life support services. The approach of a self-contained environment is reflected in the growing role of private governance in suburban residential development in Jiangning. In terms of middle-class households, moving to a self-contained settlement reflects their demand to pursue a convenient, fast-paced lifestyle. Their living form is more like a club realm of common interests, whereby homeowners prefer the comfort of having an exclusive society as a rural enclave. Furthermore, in addition to the preference of equal neighbourhoods, family and work unit connections play an important role in forming self-contained middle-class settlements.

5.4.2 Form: Mid-rise development

Government sectors plan the form of mid-rise apartments in Jiangning to transform the suburban landscape and re-shape urbanism. This is because the housing type of a residential project is determined at the planning stage, showing villa development for the affluent class and mid-rise apartments for the middle class. Visually, such sorting reflects housing preferences in equally socio-economic neighbourhoods as a common interest of the club realm, which is driven by the market.
Developing mid-rise residential projects usually strengthens the middle class’ motivation to move, and for wealthy home investors, to distribute their assets in emerging housing markets. However, this did not help to address the huge housing demand and resulting widespread urban sprawl. Therefore, the planning sectors and local government have determined the land density before processing real estate development. Back in 2003, the Ministry of Land and Resources (MLR) issued a notice to stop supplying land for villas. Since then, the central government has repeatedly stopped authorising the leasing the land for villas and related land leasing procedures. The MLR and the National Development and Reform (NDRC) Committee jointly issued the “Limited Land Project Directory (2012)” and the “Ban on Land Projects Directory (2012) Notice”, which clearly state that the plot ratios of housing projects shall be not be less than 1.0 (note: in the case of the same number of floors, the smaller plot ratios which means the housing density is low, representing a more comfortable architectural dimension to live in). It is a cliché to ban the supply of land for villa-style housing development. However, municipal governments, and especially district governments had their own difficulties in implementing the land control policy. This is because according to Nanjing’s current regulatory plan, the green space of villa development projects should account for more than 50% of all developed land, and the plot ratio (the ratio of total construction area to land area) is limited to under 0.7. The green space of apartment development in Jiangning should account for no less than 30%, while the plot ratio for apartment growth is diverse, showing a 1.2 ratio for mid-rise apartments and a 4.5 ratio for high-rise apartments.

The strong land control policy has been implemented for more than fifteen years while low-density development is still under construction, as shown by diverse forms. “This is due to the unclear definition of low-density development. As long as we have tacit approval from the local department, we can easily bypass the policy, such as by erecting mid-rise forms together with high-rise developments on land plots, to meet the planning regulation” (Interview, D4). Furthermore, “some large developers acquired land plots and then directly pledged them to banks to repay their loans. The previous housing development plan, however, has been approved by the planning sector, land resources department, and district government” (Interview, G1).
In terms of housing consumers, young, wealthy residents in Nanjing struggled to improve their living conditions due to expensive housing prices for villas. In particular, the poor quality of residential buildings in the urban zone does not have investment potential or meet living demands. Housing investors turned their attention to newly built residential projects in Jiangning. As profit-driven, low-density development could be transformed for various architectural forms. Therefore, such development usually appeared as detached villas, multi-storey apartments, or three-floor apartment units sharing one courtyard. Low-density and aesthetic landscapes were achieved through such an approach. More importantly, they display the format of wealthy settlements.

“The notice from the MLR and the NDRC would not have a big effect on the low-density housing market. Instead, banning the land supply for villa development projects creates an opportunity to raise awareness of low-density housing in Jianging” (Interview, D5).

Figure 5.11 Mid-rise settlements are built along Jiangning’s main street

(Source: Photo by author)
During the planning stage, “mid-rise settlements were encouraged in Jiangning because their spatial layout respects humanity and the lifestyle itself, which is conducive to neighbourhood relations and strengthening a sense of identity and cohesion in the community” (Interview, P3). The architectural form and external spaces on the scale and morphology of affinity, the low-density form is conducive to the building and landscape together to create rich transitional spaces. The public and private sectors facilitate the formation of multi-level, interpersonal spaces to obtain a high quality of life (see Figure 5.12).

Such a low-density community is often planned around the villa to coordinate the overall residential pattern. In terms of residential planning, the “spatial pattern is design-oriented, emphasising the distribution of high and low density, rather than being simply market-oriented” (Interview, P4) Furthermore, “the approach to planning middle-class settlements in mid-rise form around villas is conducive for the common prosperity of the environment” (Interview, U1). In order to meet the requirements for lighting, the power supply, and fire protection, the distances between each building are regulated; thus, “vertical and horizontal spaces are managed at the planning and designing stage, leading to the spatial arrangement of residential areas and the form of housing, which is determined based on the common requirements of the district government and private developers” (Interview, U2).

In terms of wealthy residents, the demands of a low-density living environment remain strong. People escape the crowded urban environment to find more space in Jiangning, rather than move to another high-density living form. A green landscape is a significant selling point in promoting the upper real estate market; hence, the differences between mid-rise and high-rise apartments are reflected in the aesthetics and niceness of public green space. As Wu (Wu 2010) pointed out, the aesthetic landscape is significant for gated communities in China because it is more than a matter of adopting a particular lifestyle. The aesthetic appeal, such as the environmental landscape, reflects more than a preference for pleasure or status. The purpose also indicates a design quality, representing a lifestyle mode. Thus, the civilised landscape distinguishes suburban residences from formerly rural settlements in order to construct a nice atmosphere while re-shaping urbanism. Moreover, property management fees vary based on the
greening of the landscape, usually represented by the high cost of property management services in a low-density residential community with a large enclosed environmental landscape.

5.4.3 Forms: Heterogeneity in architectural styles

The architectural forms of middle-class settlements in Jiangning are heterogeneous. Developers always proudly announce that teams with prestigious educational backgrounds and a comprehensive understanding of western elements design their projects. Their projects are often labelled to show cultural sophistication, with symbolic elements of ancient Roman architectural style (e.g. marble bridges, gardens, artificial lakes).

The importance of romantic images in European architecture can be traced back to 1927, when the nationalist government in Nanjing was established. Many government buildings and officials’ residences were built in the French and English architectural styles. Thus, ordinary Chinese people began to receive an impression of power and the upper class, represented by western architectural styles. Until now, the exotic building form remains fashionable in residential developments, and the trend is widespread in many middle-class residences in Jiangning.

To be honest, our designer is from China, but has one year of overseas experience in Europe. Our bosses have complained many times that the styles are not like what they saw in Italy. Thus, we attached a cultural theme to this project in order to distinguish the properties from most other projects you might find in Jiangning. Luckily, our clients quite like them. (Interview, D5)
Although China has its own architectural style, which has been widely considered a treasure of architectural history in the world, many middle-class settlements are western-looking as the new bourgeoisie and the wealthy establish their identity through a distinctive taste and lifestyle (Knox 2008). During the decline of feudalism and the Cultural Revolution, the ancient Chinese-style residences were often regarded as conservative. Different ethnic factors in each dynasty had a strong impact on cultural heritage so that each residential style was only acceptable to certain ethnic groups.

The image of western architecture offers magical, fantastic settings that fulfil Chinese people’s self-imagined aspirations (see Figure 5.12). Due to the high cost of construction materials, cement is widely used for ordinary suburban homes. This is why middle-class settlements in Jiangning contain diverse architectural forms and
have various prices. For example, Mei Zhi Guo (see Figure 5.13) is a luxurious middle-class settlement whose residential forms range from semi-detached villas to low-density apartments. In the initial stages of development, the combination of Bauhaus and German modernism was widely used for detached villas, showing a simple white and light green façade with large windows. The architectural focus was apparently on functionality, with the aim of creating large interior living spaces and a backyard. The architectural style became popular in the early phases of luxurious suburban residential development, as the design concept fulfilled the aspirations of the wealthy class, who attempted to own large vacation homes (Interview, P3). Architecturally, it is stunning, while many luxurious suburban villas in this simple style are facing a downturn in price. The reasons might be due to different situations of each gated community; however, the changing preferences in architectural style are dominant, as described by a homeowner (Interview, R_M5):

Personally, I did not feel a sense of luxury. My initial reason for investing in this property was a preference for functionality and the compact interior plan. Now I feel a little bit of regret, as this style is not luxurious, and many ordinary apartments use the same style nowadays. The style does affect my housing price. The light-coloured concrete wall became dirty over the years and is hard to clean. Now I am preparing to put the house on the market and use some extra money to buy property in the Master Land project. The starting price of both residential projects was the same in 2002. (note: Master Land Villas is only one lane away from Mei Zhi Guo but has a European style)
Figure 5.13 The former architectural style was used in designing suburban villas

(A typical villa-style suburban housing in Jiangning, focusing on functionality and in modern concise style)
Source: Photo by author

To respond to changes in preference, the European style was used in the second phase of development. In addition to the style, the developer built gating facilities and created an English name on the slogan in front of the new residential cluster to foster a sense of exoticism, with the aim of forming a distinct suburban residential landscape with former developments (see Figure 5.14). The tactic of creating an enclosed neighbourhood within a gated community raised the housing price of the new development and attracted many homebuyers (Interview, D3). The existing residential area is still facing a decline and a worse situation as the enclosed pattern aims to prevent former homeowners from entering the new residential cluster. In this context, although gated communities like Mei Zhi Guo are homogeneous in terms of the residents’ social status, the gate and architectural style result in residential segregation, as well as rising home prices.
5.5 Mixed-housing development

5.5.1 The development process

Mixed-residential developments in Jiangning are often acknowledged as an outcome of a top-down strategy that corresponds to emerging rigid housing demands. The urbanisation process in Jiangning produced a huge demand for housing. In the supply of the upper housing market, the demand for rigid housing, known as ‘Housing for Self-Living Needs’ is also expanding. Thus, the strategy is a government-led approach to help real estate developers reduce investments in small units.
Unlike affluent families, who value improving living conditions as a priority, owning a home is more significant to most young families. Due to a limited consumption of large-scale suburban housing, young families usually demand small-scale homes in suburban areas. Real estate developers usually adopt the approach of mixed-housing for the following reasons. Firstly, investments increase by developing small homogeneous units. Although the housing supply has been expanded, the extremely high-density living environment is not satisfied with marketing. Secondly, in order to overcome insufficient funds to develop support facilities for cheap housing and stimulate real estate developers, planning sectors and the district government should encourage mixed-residential growth and intervene in the process of land leasing. According to one planner, “Mixed-housing development was given specific meaning to undertake the role of attracting diverse households with different income levels. The marketing approach responded to the action of expanding the supply of rigid housing demands while improving living conditions” (Interview, P4). In a practical way, the development process of mixed-housing forms was related to the target of providing rigid housing for common residents by the central government. China’s Premier, Keqiang Li, promoted the initiative to meet rigid housing demand in the National People’s Congress and the People’s Political Consultative Conference in 2015, with the aim of increasing urbanisation and accelerating the process of obtaining local hukou for permanent urban residents, thereby enabling them to enjoy basic public services, such as education, employment, and medical care.

In the booming housing market, driven by the land-based economic structure, housing prices have risen to the extreme, and ordinary residents can no longer afford homes. For example, a 70m² apartment in Jiangning requires one million Chinese Yuan for a down payment, while an ordinary white-collar employee’s annual salary is around 200 thousand Chinese Yuan, indicating the need to “save enough money for at least more than twelve years for the down payment” (Interview, R_L1). This is a vivid description of the many Chinese citizens who are anxious about high housing prices and problems, especially the two or three million new urban residents. Both in the government work report and at the central government conference, Premier Li stressed that “the Chinese government needs to provide housing security for low-income groups”. However, “only 20% of the population in the cities and towns across the country can
enjoy the policy of affordable housing”. Meanwhile, “only about 10% of the population can actually enjoy the policy if the district government deducts the statistics of affordable housing in Jiangning” (Interview, G2).

Among the citizens who need to buy or improve their housing conditions, more than 60 % fall under the category of affordable housing. They are the most important aspect of the urban housing conflict in China, and play a dominant role in driving rigid housing demands. From 1998–2003, the per capita housing area for urban residents was 17.8 m², rising to 22m² in 2003. However, from 2003 to the end of 2014, the average housing area per capita in cities and towns did not increase, but fell over a period of twelve years, from 22 to 20.97m². These numbers indicate that previous housing policies of encouraging large housing development for the wealthy class in Jiangning failed to address the housing demands of ordinary people. The high housing prices resulting from the land-based economic structure not only severely curbed rigid housing consumption but also greatly delayed Jiangning’s sustainable development strategy.

From an international angle, based on the recognition of housing demand and the rapid growth of the real estate market, housing consumption in Jiangning seems backward. Thus, the district government realised that under the strict land control policy, in restricting large-scale and low-density residential development, building small-scale homes needed to be transformed into a new form of support for local economic growth. Furthermore, the real estate market had the greatest potential for developing the housing industry. It is not that urbanisation could bring about demographic dividends, but rather, the housing policy and supply could not solve the problem of ordinary urban residents, who normally cannot afford housing prices. Therefore, the Jiangning District government divided their land leasing strategy into three aspects. Firstly, the upper housing market was to be adjusted based on market prices, and land leasing for high-end residential expansion was to be controlled at certain volumes. Secondly, the government expanded its investment in affordable housing development to meet the housing demands of low-income people. Thirdly, land leasing for commodity housing was to be expanded for allowing affordable
housing development to ensure the housing supply for the wider population and the working class.

In 2012, the Jiangning District government drew up a plan to build 80 thousand units of affordable housing, which would benefit more than 240 thousand residents. In the ‘commodity housing’ supply market, the Land and Resources Bureau adopted the policy of ordering developers to build affordable homes in commodity housing communities. Furthermore, the district government increased the proportion of land supply in a timely manner to ensure that the floor price of commodity homes did not exceed the prices of developers, who are restrained by hunger marketing, to bid higher for the housing price. In February 2014, the “90/50” policy (whereby housing areas under 90 m$^2$ must account for more than 50% of all project construction) alleviated the structural contradiction that the small-scale housing supply is insufficient. In the context of land owned by the state, developers are forced to compromise with the government and build small apartments for high-end projects. For example, Vanke developed three blocks of high-density condominiums, with each unit under 90 m$^2$ as part of its high-end, low-density residential project. This approach objectively lowered the threshold for buyers to become high-end community households.

5.5.2 Forms of mixed housing settlements

The growth of mixed-housing development in Jiangning emerged under the policies of expanding the rigid housing supply and the market-oriented approach. One type of residential cluster is planned to integrate with the surrounding employment offices. The spatial layout is designed to be a landscape full of vitality and to offer a convenient lifestyle. For instance, high-rise apartments are designed as the boundary of the community, and low-density apartments are located internally. Large supermarkets and small-scale convenient stores are built around the residential settlements to serve the households’ needs and to create a vibrant streetscape. The streets are designed at an appropriate dimension to strengthen commercial functions. The shops along the sides of streets usually contain chain brand restaurants and supermarkets, which enhances the urban atmosphere at the neighbourhood level. The shops and
restaurants are rented out or sold by developers so that the forms and scales are designed according to the needs of the business projects. “Low-density residential areas within the community are planned as part of the environmental landscape, while household-only facilities strengthen privatisation and living quality” (Interview, U3). On the one hand, such a form could increase the property value and lead to a distinctive environment with a high-density residential area; on the other hand, in the case of meeting the requirements of planning regulations, the enchantment of the land helps to raise the value of the real estate project (Interview, G3).

High-rise apartments are normally designed to contain at least 6 units, with one sharing public space on each floor. The internal apartment area is normally smaller than 90 m². In order to meet the basic living requirements of a young family, the layout is one bedroom, and two bedrooms with two washrooms. Usually, high-rise apartments are furnished to sell, as the quantified interior decoration and furnishings can reduce developers’ costs, while increasing the property's housing price. Small-scale apartments with furnishings reflect the market approach of attracting young households and property investors. “The households of small-scale apartments are normally young families who work a lot, with limited breaks. This makes it impossible for them to spend too much time on their new home. At the same time, owning a home with stylish furnishings also provide a new lifestyle” (Interview, E1). Meanwhile, some small-scale apartments are sold to property investors. They purchase the apartments to rent to young employees and graduated migrants. Due to long distances to the urban centre, the rent is relatively cheap, but the quality of the outdoor environment and internal living space are far better than that of properties in the city. Therefore, these small-scale apartments are rented out as single-family homes.

Baijia Lake residence was a former middle-class settlement in Jianging, and a successful experience of residential development; the settlement has expanded and developed as a self-contained residential quarter (see Figure 5.15). Due to its lake landscape, pleasant scenery, and low-density living, Baijia residential quarter is also called “the Miami of Nanjing” (Interview, E2). However, the adjusted housing policy and planning requirements forced developers to propose a strategy of mixed-type residences and urban facilities, including hotels, offices, and commercial complexes
in order to acquire the bidding position during the land leasing process. Therefore, recent development has revealed high-rise living and commercial forms and complexes, leading to a self-contained form. In order to create a unified urban space, modern architecture was implied in both commercial and residential buildings. The widespread use of modern styles is not only employed to reduce the cost of construction but also to build the effect of the urban functional cluster. “Even though some apartments were designed for single family use, the offices and 5-star hotels defined the project as an urban complex; the households were targeted to young bourgeoisie. Property orientation and design style also belong to the production of high-end development” (Interview, D5). Planning small apartments as part of high-end development is not the performance of market choice, but rather reflects the government’s willingness to govern the real estate market in Jianging. Large real estate developments, such as Baijia Lake, demonstrate the district government’s role in responding to central policy, while also signalling to other property enterprises that “the housing market should be developed based on government intentions” (Interview, D2). Therefore, no matter the architectural style or spatial layout, the growth of a mixed residential community has surpassed the residential function itself, and begins to assume the role of the urban landscape and functional gathering.
In addition to residential functions, mixed-housing development plays a role in expanding commercial and business concentrations. In 2002, the district government began to lease the surrounding land of Baijia Lake as a multi-purpose community with residential and commercial elements. As a portal of Jiangning, Baijia residential quarters were renamed as a commercial circle (shangquan) in order to demonstrate successful urbanisation and urban functional concentration. Regarding the transit area between Jiangning and Nanjing, the district government and planning sectors tend to strengthen commercial impacts in order to facilitate more urban functions and transfer residential function as an auxiliary.

Real estate developers are not satisfied with building residential projects in Jianging. The district government’s ambition stimulated the desires of real estate developers to
become involved in the entire land development of Jiangning. For example, Tongxi Group attempted to take an active part in the construction of Baijia commercial circle through a series of operations, and eventually swallowed the land like a whale. In the nearly 1 million m$^2$ of new commercial circle, Tongxi Group has been individually involved in the planning and construction of six large-scale shopping malls, three 4-star hotels, and one 5-star hotel. Thus, 60% of land development is enough to form a leading role in the urban construction of Baijia commercial circle (Interview, E1).

According to the plan, the east side of Baijia Lake is planned as a commercial cluster, which contains large commercial complexes and hotels. Among them, the northeast corner is planned to be a central business district in the area. In 2004, the opening of Tongxi shopping mall formed the prototype of Baijia business and commercial circle. The site was planned as a monocentric structure surrounded by high-rise apartments, offices, and hotels. The commercial complex and shopping streets were planned in the core area. The luxurious plaza at the core demonstrated a strong impact of services on the surrounding offices. The cluster of modern offices was located on the two sides of the six lanes of motorways, thus demonstrating business functions. Between the office buildings, restaurants, coffee shops, clothing shops, and amenities were added to serve pedestrians. Thus, residents and office workers have leisurely places to go. Several green spaces and landscapes were arranged, strewn at random on the site, thereby creating a liveable, working, and pleasurable environment (See Figure 5.16).

The successful economic contribution and population gathering brought a lot of tax returns. Since then, through the adjustment of previous plans, the district government has further encouraged real estate developers to cooperate in developing commercial complexes, and to obtain the right to develop each residential project. Furthermore, the functions were regulated by planning sectors such as offices, commercial streets, green spaces, hotels, and service-apartments. The intensive commercial development in the residential area raised the social impact. Therefore, in 2010, the Nanjing municipal government established Baijia business circle as the centre of the metropolitan zone and also as the city’s sub-business area. Until 2015, eight shopping malls were intensively developed around Baijia residential quarters, and the building
volumes ranged from 30 thousand to 200 thousand m². The emerging commercial complexes attracted diverse consumer groups and met the increasing demand of local consumption. Thus, the nouveau rich and middle-class have merged in Baijia business circle and possess strong purchasing power. According to a local government internal report, from 2004–14, the expenditure within Baijia business circles increased to more than 70 billion Yuan, which is sevenfold the figure of 2004. The revenue rose to more than 10 billion Yuan, which is more than 20 times that of 2004 (Interview, G1). The huge financial gains drove the district government to lease more land to process commercial land development, rather than pure residential growth.

Figure 5.16 An entrance of a residential quarter: the modern and high-density apartments along the street

(A gated community in Jiangning is mixed with a commercial complexes and a shopping street)
Source: Photo by author

The unitary low dense residential cluster has gradually disappeared as long as emerging mixed residential complexes. Since “high-rises simply demonstrate the image of modernisation, mixed developments not only reflect the implication of land
control policy, but also reflects the ambitions of governments and real estate developers” (Interview, G4). Firstly, large real estate developers are not satisfied with building small-scale apartments. The emerged large dimension of high-rise projects at Baijia business circle, demonstrating the strong financial strength of real estate enterprise. According to an interview with a real estate developer, “Before the mid-rise buildings were erected, the construction of the high-rise service-apartments ensured that the development intensity of the plots met planning and government requirements” (Interview, D5). Reaching amenities and facilities at a walkable distance and owning a private living space can achieve the higher standard of lifestyle. Meanwhile, mid-rise apartments meet households’ demand for enough lighting and spacing between buildings, and the appropriate dimensions between apartments and landscapes demonstrate a high value added living environment, which is rare in the commodity housing market.

Each piece of land is planned at a dimension of 900*800 metres for residential use, which contains three or four residential settlements ranging from low-rise to mid-rise to high-rise apartments. By intensifying the setting of upper housing market in the mixed residential settlement, the middle-class and affluent are also becoming a main group of households. One planner argued that “the discrepancy between strict planning policy and tricky real estate developers somehow unexpectedly promoted diversified residential development” (Interview, G6). The deepening of policy influence and the establishment of long-term planning mechanism promote the development of real estate market gradually turning to a stable period. The approach of monotonic housing forms prominently reaches the bottleneck of the suburban housing supply. Therefore, discrepancy development can increase the attraction in the fierce market, which also promotes the development of diversified housing types. Furthermore, the changes in preference for housing types are to be guided by developers and government sectors. Combining commercial complexes with residential functions while maintaining an urban lifestyle became the basic development strategy in promoting mixed-housing growth in Jiangning. The combined forms are rare in central urban areas and have become a distinctive visual identity between urban and suburban living environments. Besides, young wealthy families, as one of leading consumer group in Nanjing, have recognised the living form which balances the
demand of modern lifestyle and leisured environment. Furthermore, non-households could also benefit from the comprehensive functions on site.

Suburban commercial and commodity housing project with comprehensive urban functions in Jiangning generated large amounts of revenue, but cannot further sustain families with children who make higher demands of the private and secured living environment. Thus, “at present, another contradiction of the residential development in Jiangning is the new community lack care for children. Besides the necessities for parents, a long commuting time and cost still need to be taken for acquiring the supplements of children’s daily necessaries” (Interview, R_M3). Following by the traditional land-based finance, the government continually leases land to real estate developers to improve urbanisation and commercial prosperity. But the outcome was not what the government expected. Under the influence of China’s powerful e-commerce economy, the physical business functions of various regions have been declining. Although the construction of physical businesses is slowing down, it is still full of challenges and hopes. “As residents rely more on e-commerce to meet shopping and leisure needs, the diversification of housing forms through the expansion of large commercial complexes have been reaching the bottle neck of the sub-divided housing market” (Interview, U2). Therefore, real estate developers promoted a new approach by creating scenes and introducing intellectual property to enhance offline consumption experiences. By setting scenarios of residential functions and transforming traditional commercial functions into parent-children themes, a family-oriented, and self-contained community emerged.

In the southeast corner of Baijia Lake, four commercial complexes were established. Besides the traditional functions of shopping malls, the land contains two theme parks, one outdoor recreational park, and a nightlife commercial and shopping area. Furthermore, 100 thousand m$^2$ are designed for child education and training institutions. “the market demand drives education complex to development vigorously, and education complex also derived a variety of business modes, which attempted to promote the deep integration of education and real estate” (Interview, D5). The commercial functions are designed as low-density, creating large public spaces and environmental landscapes, such as green parks and artificial lakes. High-density
apartments sit on the site of commercial areas (see Figure 5.17). Real estate developers attempted to involve life-oriented facilities and create large public spaces with a strong commercial environment to attract housing investments from middle-class families with children.

Figure 5.17 A commercial complex combined with a theme park

(Photo shows a theme park for households and other families under the high-rise apartments)
Source: Photo by author

The form of surrounding residences is usually high-rise apartments, which is homogeneous. The housing scales range from 90–160 m², containing two to four bedrooms. The former “90/50” housing policy was strategically not implemented in new residential projects. This is because in the following three aspects: firstly, thanks to the former policy that solved rigid housing demands over the past five years, while the housing supply of small-scale apartments in Jiangning have exceeded the amount of rigid housing demands. Secondly, the consumption of single-family homes is not able to support further physical commercial development. Thirdly and more significantly, the growth of middle-class families and their rising investment in young people’s education push the district government to further cooperate with the market
regarding stimulated further economic growth at the policy level. “Former development responded to state policy to address rigid housing demands, while some neighbourhood conflicts resulted from different preferences caused by many social influences. Thus, the development strategy should be dominated by real estate developers, and it is the demand of the market that determines the housing forms” (Interview, G4). Therefore, real estate developers were given the decision to determine the supply of housing types. The decade of housing policy on governing housing types in the real estate market has ended, leading to mixed-type housing settlements. Since the residential development in Jiangning not only aims to meet housing demand but also to play a role in supporting business functions, the form of a residence has evolved towards urban density.

5.5.3 Implications for suburban life

The discrepancy of suburban life is emerged since the market provides diverse housing supplies for the residents with different background and moving motivations. Usually, the discrepancy is prevented from segregating low-income and high-income suburban settlements. However, in the former experiences, in order to prevent the decline of the neighbourhood for the poor, new town development promoted a mixed-housing strategy to integrate households’ different social backgrounds and to help people live in the same neighbourhood. The attempt did not operate as the planers’ expectation. “Residents still tend to live in the same neighbourhood as people with the same lifestyle” (Interview, U3). In Jiangning, planners and policymakers have broadly researched methods for creating a diverse society, and “planning implementation has experienced a long-term practice that can widely be seen in the compositions of suburban, gated communities” (Interview, P1). “Although the mixed living forms are not promoted by developers, local planning bureau and housing authority still suggest them to provide diverse housing types within one project” (Interview, U2). In addition to delineating the harmonious coexistence of social environment between the poor and wealthy, the diversified residential development is determined by the economic contribution to local GDP and the role of urbanisation; yet the booming real estate market often overshadows residential problems within settlements.
For example, the settlement “Rive Gauche Grand Estates” (RGGE) is a typical mixed gated settlement in which neighbourhood conflict arose and was reported on the local news. The case has been developed over two phases since 2008. The real estate developer planned villa-style homes as the main housing types in addressing the fast return on land development, as well as creating a better environment in the first phase. The development strategy rapidly attracted wealthy families and successfully allowed developers to obtain vast amounts of return on initial investments. Developers also planned high-rise apartments as the other housing type in the second stage of development to achieve the density indicator due to planning requirements. The floor area of each apartment was relatively small, and the housing price was fairly affordable so that ordinary families could also share the luxurious environment with their better-off neighbours. Villa-style homes of 300–600 m² sold for 4 thousand to 7 thousand Yuan/m², and apartments of 50–120 m² were sold at prices ranging from 5 thousand to 6 thousand Yuan/m². The average price for apartments and villa-style homes have reached as high as 32 thousand to 35 thousand Yuan/m² and 33 thousand to 37 thousand Yuan/m², respectively, over the last ten years (Interview, E1).

The surrounding commercial development formed a prosperous landscape to boost property value over the past decade. All properties were sold immediately upon completion in 2008 due to cheap housing prices and precious housing supply. All actors involved made money from the project. As mentioned above, although the local government did not directly earn a profit from this project, by leasing other pieces of land in its possession at high prices, the local government managed to make large sums of money from surrounding residential development. Developers put great effort into designing a residential landscape and investing in the construction of surrounding facilities, attempting to boost the property value for further growth. Therefore, many households moved into RGGE for their own reasons, but there were huge differences in overall prices due to polarised market positioning, which is arranged in the same residential area.

The mixed-housing strategy achieved the expectation of residents having a heterogeneous social status whereby they live in the same neighbourhood and share the same facilities. However, the actual conflicts between high-income and low-
income neighbours were very intense because the “wealth utopia” of villa households was destroyed since ordinary households moved in at the completion of the second phase. On the one hand, wealthy families purchased suburban villas to achieve their “villa dream” and protect their privacy as “such pursuits are unprocurable in the urban neighbourhood” (Interview, R_M3); on the other hand, ordinary households covet the better-off, private environment, which was created for villa-style households. A female member of the neighbourhood committee (Interview, C1) indicated that

The project management office used to receive large numbers of complaints about the apartment households walking on the “private roads” of villa households. Technically, there is no such term as “private road” in this community. Villa households generally consider the walkway and small green space in front of their property as private, which can only be shared by villa neighbours occasionally.

Not all villa households felt repulsed by unknowing neighbours who passed around the villa quarters, because they understood that the public green space and environment are better and wider than those in the condominium quarters. However, they also complained that the children of apartment households often played football in the area of the villa quarters and damaged the green space and were noisy. This affected the peaceful environment and damaged the facilities, which need to be maintained with high property management fees (Interview, R_M4).

While it is true that the property management fees vary between villas and apartments, it is also true that “the unequal planning of green spaces and spatial density results apartment households to walk into the low-density villa quarters” (Interview, C1). In terms of ownership, both real estate developers and the management company did not have specific regulations on restraining the rights of apartment residents. More importantly, the beautiful environment was regarded as one of the selling points in promoting high-density suburban housing to low-income groups. Therefore, tension arose between the villa and apartment homeowners, and each group had their own understanding of privileged homeownership.

The conflicts did not remain at the verbal level. The property management company received many requests from villa homeowners to investigate their private cars, which
suffered malicious scratches when parked in front of their homes at night. Finally, a young suspicious male was identified through a surveillance video, which confirmed him as a resident who lived in the apartment quarter. His identity could not be fully verified, but such activity caused villa homeowners to become angry, and they eventually boycotted being neighbours with apartment homeowners. The local government even noticed emerging conflicts and talked to the former manager of the property management company to address issues in order to avoid the involvement of pressure from public opinion. A member of residents’ committees in charge of handling the issue expressed that

Both involved apartment and villa homeowners, who were innocent because they were scammed by the real estate developer’s vision of suburban life. In fact, before 2003, we were eager for any developers who could invest in land development. The land was easily leased as long as the developers were capable of running the capital chain. Since then, we have adjusted the policy that requires developers to report each phase of the development plan to us, and we literally prohibit mixed-housing development. Real estate that contains mixed-housing forms was permitted before 2003; however, the new developments are all built in middle and high density (Interview, C4).

Finally, according to residents’ wishes, the local government had to order developers to erect a fence that divided the compound into two areas, with a gate between the villa and apartment quarters. Two property management companies were jointly responsible for managing each quarter to ensure the independence and rights of the two types of owners via corporation committees, which were respectively represented by apartment and villa homeowners. Besides, an alternative gated setting and a convenient gateway to walk directly into the apartment quarter were opened to mainly serve apartment homeowners.

Mixed-type housing development always fails to promote a collective lifestyle or to help residents form a collective identity. Diverse reasons for moving always influence different residents in terms of housing consumption. Some homeowners consider suburban gated residences to be a transformative version of urban homes with large living spaces, lower housing prices, and appropriate locations with urban facilities,
while others consider them to be a club realm. Real estate developers have been working on a hybrid model such as unified forms that can balance the differences among different income groups to respond to the local government’s policies and find the best solution. However, “it is still not easy to solve conflicts between neighbours due to households’ different incomes and socio-economic attributes” (Interview, D4).

An interviewee’s home locates in a mixed resettlement and commodity. His residence consists of two floors of 160 m² at an appropriate distance from the city. In general, the prices of different housing types in his gated community range from 600 thousand to 1 million Yuan in 2006, much lower than those of apartments in the urban centre. The price is not affordable for many ordinary people, even those who live in the same residential quarter. The residential forms mainly contain mid- and high-rise housing types, showing an environment of the upper market.

We have a swim club and a gym, but the lifestyle and services we could benefit from in the community were not the first priority when we moved in. Rather, distance to the city and housing type are much more important to us. Now we are often disappointed with our neighbours because of their manners, but luckily, we stay in Europe for almost half the year. The residents here are too diverse (Interview, R_M3).

The findings can be revealed from the stories told during interviews in Jiangning with local residents. The first case is about a resident who work as information technology manager with a high-income. He has owned a townhouse in Jiangning for more than ten years. His wife is engaged in banking management. They have a son and a daughter. Their family income is about 1 million Yuan per year, which is typical for a middle-class family in Nanjing. When inquiring about their social life in Jiangning, he expressed that

We will greet our neighbours, but we don’t know much about them. It seems that as a local, my neighbours are all still working and living in the city for half of the week, as it is rare to see them on weekdays. I live in an urban home after drinking late or working overtime sometimes ... I am considering owning another apartment in the city so that my daughter will able to go to a better high school next year.” (Interview, R_D4)
Another interviewee is a retired professor who still participates in many academic activities and gives lectures. He lives with his wife and his son’s family, which is rare, as few families of three generations in Nanjing live under one roof. The dynamics of moving to Jiangning are due to the large area of a two-floor apartment home, which was subsidised by the university and the local government. His son lives with him now because he is willing to look after his granddaughter. However, as the son works for the government, he has to commute between the city and his home in Jiangning every day. However, all of them are still not familiar with Jiangning:

We have almost no connections with locals and neighbours because old friends and colleagues live in the city most of the time. [Author’s note: The interviewee’s former residential form was an urban “work-unit compound,” so he built a strong relationship with colleagues and friends in that living form.] Currently, we don’t have work-unit connections with neighbours or locals. (Interview, R_M1)

5.6 Resettlement: Apartments for relocated households

In Nanjing, the municipal government began to (re)develop existing settlements in the peripheral areas by relocating residents to new towns. Rapid suburban growth created more job opportunities and migrants. On the one hand, market intend to attract more middle-class residents by providing high-quality housings in order to maintain vitality; and the government aims to transfer industries to the suburbs to increase population concentration. On the other hand, rural settlements were demolished to develop infrastructure and public facilities which results government have to provide more housing for relocation and compensation. In this process, both migrants and existing residents experience rising living costs of suburban life and emerging poverty. Under the pressure of increasing housing prices, mostly working class families do not have many choices to purchase a new home. Along with rapid urban regeneration in the central area, the inner-city neighbourhoods are facing the prospect of demolition for transforming to high commercial or political value projects. While, the expenses of building mega infrastructure not always comes from municipal fiscal revenue or directly investment from governmental sectors. Private sectors including real estate
developers, construction enterprises and municipal demolition commission jointly shouldered the demolition and the development work. Influenced by the architectural style of the Soviet Union, the former urban residential buildings usually demonstrated by middle-rise apartments, occupying a large volume of land area. In order to balance the profits and expenses of resettlement for residents, developers have to supply high-density housing for relocated residents in commodity housing development projects.

Building resettlement project usually demonstrated the political achievement, while the living conditions of new homes are not always important (Interview, G5). The peripheral area of Jiangning is always a location for families with involuntary moving motivation. This is because resettling urban low-income residents to Jiangning directly increase the local employment vitality. Furthermore, the land from government can be used to raise the land value and to actively transform rural land into urban land use. Thus, the extremely high-dense residential clusters have widely emerged in Jiangning, standing along the sides of ring roads (see Figure 5.18).

![Typical resettlement apartments on the urban fringe of Nanjing](image)

*Figure 5.18 Typical resettlement apartments on the urban fringe of Nanjing*

(Photo shows the extremely dense suburban settlements for accommodating relocated households)

Source: Photo by author
According to the “Section 5” of detail rules for the “Implementation of Compensation and Resettlement Measures for Land Requisition in Nanjing, 61 Policy”, the strategy was to replace old buildings with new homes and compensate the inhabitants via equal housing based on the number of family members in the new residential development. There were two methods for compensation. One was to provide cash compensation and funding supply for building new house. The other was to provide cash compensation for purchasing new commodity housing and relevant fees for resettlement. The method one usually applied for former rural residents and the methods two is for urban residents. For encouraging residents to give up their former housing, the compensation can afford the price of entire floor of building, which is very common.

The vacant homes in the resettlement buildings were rented out by households to rural migrants and young graduates. Apartments with two or three bedrooms were often rented to several migrant families separately. The type of rental “qunzu” (literally, “co-renting”), which has become a way for migrants to find low-cost housing in Jiangning. Large amounts of vacant suburban apartments were rented out to migrants, which led housing conditions to decline. The district government realised that allowing private developers to undertake the public housing project without governing and monitoring is not a sustainable method. On the one hand, due to the rare of urban land resources, building large-scale rehousing enclaves is difficult to achieve in the future; on the other hand, large-scale resettlement enclaves caused falling of land value.

For addressing the housing supply for resettlement families, municipal government required state-owned real estate developers to accommodate a certain number of relocated residents in their new commodity housing projects (See Figure 5.19). However, the social conflicts arise between commodity homeowners and relocated households, representing by the affected second hand housing price. For protecting the property value, another gate inside the community has been built to separate the sections of commodity housing from the rehousing area, and apply different property management fees (Interview, D1). Furthermore, developers name differently each
residential cluster, or using different phases of development to reduce the impact of diverse housing types within the same estate.

Figure 5.19 Relocated housing types integrate with two middle-rise commodity residential buildings

(Photo shows the high density relocation homes in the middle contrast with two sides of commodity residences in Jiangning)
Source: Photo by author

By grouping with state-own real estate developer, Nanjing municipal government find a solution to solve housing supply while be able to develop public projects at the same time. However, “the decline of living quality and stigmatised residential cluster raise the concerns of district government and relocated households” (Interview, C2). For example, the extremely high-density residences are stigmatised as poor residential areas, the value of the surrounding land is seriously undervalued by the market. The residents are also often labelled nouveau riche. To address the social problem and
maintain the surrounding land value, local planners and scholars proposed that “resettlement housing projects could be developed in the form of commodity housing” (Interview, G3), and “the housing price and compensation fees should be administratively controlled and intervened by local government based on the land value” (Interview, U4). In the physical aspect, this proposal not only changes the composition of residents in the resettled neighbourhood, but also promotes the diversified residential development in Jiangning. More importantly, it makes the land be used and leased economically.

The Daishan Affordable Housing Cluster is a typical resettlement community containing more than 90 thousand residents (See Figure 5.20). It composed by high-rise apartments in a structured layout. Greenland and Vanke, the two of largest domestic real estate developers, built the Daishan Affordable Housing Community. The project occupied 3.8673 km², which involved investment of 13.36 billion Yuan. The entire land is divided into 32 clusters (including 10 clusters for suburban commodity housing), and two metro lines pass through the residential project. The floor area of each household ranges from 60–80 m². The physical form of resettlement housing is visually different between other settlements because it is a unified real estate project. “The local government uses Daishan as a testing ground to find a self-containing land development strategy to provide commodity housing, in order to maintain the land value of peripheral area of Jiangning and offer affordable housing to meet the housing demand for low-income residents at the same time” (Interview, U4). Significantly, the composition of its households is not traditionally homogeneous. The housing types contain commodity, affordable, low-rent, public rental, and resettlement housing for homebuyers who intend to find suburban homes with affordable price. Low-rent and public rental homes are furnished with unified interior design, which is also saving the expense of resettled compensation for the government. “Due to the administratively controlled, the fixed housing price, 9 thousand Yuan per square meters, is only half of the price around” (Interview, C3).
Figure 5.20 Daishan Affordable Housing Community

(Photo shows a suburban community of resettlement houses mixed with different property-rights suburban houses)
Source: Photo by author

Not like former resettlement communities, low-income and resettlement families represent the major social status of residents. The local government stipulated four groups of family that welcome to purchase new homes in Daishan. The first group is low-income family, holding with at least five years of Jiangning urban hukou; the monthly wage per family member and per capita housing area are below specific standards. The second group is a family with urban hukou in Nanjing that both has no housing transaction records and homeownership. The third group consists of young graduates with hukou in Nanjing, with no housing ownership or transaction records, and employed for no more than five years, with two years of paying tax records. The last group is a family with special needs and hardship. Such strict application restrictions ensure that only families with rigid housing demands are able to solve their housing problems. Government believes that families with housing demands are able to ensure the stability of community, meanwhile, the property right of commodity housing are guarantee their asserts (Interview, G6).
Although the direct profits from the project is meagre, the developers are still keen to invest and manage resettlement housing project. This is because with the increasing development of Jiangning, the land value of the central area is rapidly growing. In order to save the bidding price of the central land development and obtain the development license, large real estate enterprises bear the developing expenses of the resettlement housing project, and in exchange for the government, they can negotiate a land price to obtain the development license of the central area (Interview D4). In terms of management, “Daishan Affordable Housing Community is developed and run by the same company so that property management fees also serve as the long-term income return to the developers” (Interview, C4). Furthermore, the brand effect increases residents’ sense of belonging.

I lived in a so-called low-income community. Honestly, my community is better than others. We have very good property management. No one is able to privately set up an attachment on the balcony. (note: A common action emerged which is not only in low-income, but also emerged in middle and high-end communities whereby residents privately place concrete on the balcony and install windows and other attachments for expanding interior space). Thanks to the contribution of the property management, our housing price rose rapidly along with those of other communities nearby (Interview, R_L2).

As a successful case of a suburban resettlement community, Daishan generally erases the social stigma of low-income settlements. On the one hand, Daishan is not only a residential cluster for commodity housing supply but is also a new home for families with rigid housing demand; on the other hand, the strategy of market-driven land development inspired the government to improve the tactics of massive population relocation during suburbanisation. Social issues, caused by passive relocation, such as community decline and inequality development, can be solved through the voluntary decentralisation of the low-income class.

For enhancing the sense of safety, the gating settlement was installed for pedestrian only and avoiding the access of non-household cars. On the one hand, gated Daishan are seen as a response to the government’s failure to ensure adequate security of
peripheral area; on the other hand, gated and walled settlements make relocated residents feel less vulnerable. The gated living form is more or less similar to the traditional Chinese neighbourhood “Da Yuan” (Literally, “residential compound”). Thus, residents in the proprietary community are willing to maintain the environment in an efficient form. Furthermore, considering the fact that an affordable housing community like Daishan is built in an empty area, which has little history of urban development, the gated and walled settlements symbolise the enchantment of the residents’ sense of belonging. Although the intention might not be directly related to a self-organised form, it is a way to reduce public expenses (McKenzie 2005).

5.7 Conclusion

The rise of diverse suburban settlements was difficult to achieve without residents that had different reasons for moving and contributions from a range of investments. Suburban residential development in Jiangning contains mixed characteristics of urban and suburban forms. In the context of rapid urbanisation, real estate development promotes fast local economic growth. Local governments and real estate developers cooperate to supply housing demands for rising land value. Suburban real estate development is created to meet the demand to improve living conditions; it also plays a dominant role in processing urbanisation and land reform, as well as strengthening the living conditions of urban space.

The local government plays a significant role in initiating and advancing such development. The policy of local subsides leads real estate developers to use fewer funds to obtain large land resources, and to focus on competition in the housing market by promoting suburban housing projects that the government can be satisfied with. These tactics not only attract China’s emerging wealthy class but also supply a range of suburban housing types for ordinary people, including first-time homebuyers and upgraders. As such, in this competitive housing market, different suburban residential forms help customers find a product in different housing markets. Suburban settlement reveals modernised features that meet different preferences and purposes. To a large extent, heterogeneity helps to form a polycentric metropolitan spatial structure in
Nanjing. Suburban land development is also a tactic for transforming rural land to urban land use. In other words, suburban residential growth in China is a transitional stage of urban development from agglomeration to expansion.

From villa-style housing to mid- and high-rise living forms and mixed-housing types, suburban residential development in Jiaying demonstrated a mutual process with urbanisation, showing a trend of changing suburbs into urban areas. Suburbanisation and urbanisation are distinctive processes, resulting in different features of spatial disparity. The spatial disparity in developed countries often occurs due to a different socio-economic status between urban and suburban residents. Suburban residents often have better socio-economic status than urban residents. In China, because of different stages of urbanisation and economic development, moving to the suburbs is not an exclusive choice for the affluent class in pursuit of a particular lifestyle. Ordinary working-class and migrants, as a huge social group in China, often show voluntary and passive reasons for moving.

As urban Chinese residents experienced a “consumer revolution” thanks to rising income (Davis 2000), they desired to improve their housing conditions. Thus, developers tried to provide services in commodity housing estates in the suburbs to encourage young families to move out of the city. The local government is responsible for providing infrastructure (Lin 2007). Young to middle-aged couples and sophisticated-looking, middle-class professionals seek to own stylish homes in the city, ensuring quality of life and family stability. Young families represent a growing middle class with stable incomes and a strong ability to pay a mortgage. They purchase property to become members of the homeowner class. Rising house prices draw them to own property as young as possible to attain security. With the traditional belief that owning a home means owning security, young Chinese couples tend to save to purchase a home. Migrants from other cities want to buy property to change their hukou registration in Nanjing to gain access to social welfare benefits and the right to attend local schools.

Huang and Low (2008) argue that common socio-economic status, lifestyle and property-related interests play a dominant role in creating territorial collectives for
emerging gated communities in China, which has a long tradition of collectivism. The conclusion might be true regarding theories on prestige and gated communities (Blakely and Snyder 1997). However, the term "gating" in enclosed residential quarters in Jiangning is developing a distinctive meaning within gated communities. This is because the disparity in lifestyles between different households might result in heterogeneous housing preferences, but the current gated form is not meant to continually create collectivism. Furthermore, it is still difficult to say that the tactics of the enclosed suburban living form are intended to re-build a new social network. Jiangning's cases emerged as very distinctive images from the suburban living that creates new social relationships between neighbourhoods.

What makes gated suburban communities widespread in Jiangning is also dominated by urban planning. Placing gated communities in the context of Chinese suburbs while providing the collective tradition of the living form, the development of gated suburban communities can be viewed as a response to reduce public fiscal spending, as well as to ensure adequate security, which is mainly propelled by the local government though huge land development. Therefore, Nanjing's suburban spatial pattern demonstrates a feature of heterogeneity on a large scale, while also containing a homogeneous society in a small dimension. The suburban area is intended to be developed as a part of an urban zone, but that spatial feature might be a distinction between urban residential spatial structures. Such a form of living is not typical; it is difficult to accurately define because gated and enclosed types of neighbourhoods have existed in China for a long time. Like traditional enclosed residential compounds, Jiangning's modern form of gated community contains strictly controlled entrances and closed walls and fences. In other words, gating is not meant to produce a new lifestyle or to create a heterogeneous society. Furthermore, because suburban residential growth in China is very different from the private car-driven suburbanisation of the middle class in the North America (Zhou and Ma 2000), it could still be too early to say that moving to suburbs reflects the demand for better living conditions, more space, and a cleaner environment (Zhou and Logan 2008). However, heterogeneity is somehow similar to "occupational homogeneity and personal wealth heterogeneity" (Belsky 2000). To be more precise, it is more similar to morphological homogeneity and lifestyle preferential heterogeneity.
The discrepancy between the urbanised enclave and the development of the rural landscape raises awareness of protecting homeownership, without being affected by different lifestyles or social status in China. This reflects the diverse housing choices dominated by private sectors, by setting different formats of gating to establish social exclusion. However, there is another hidden reason, which refers to the ideology in traditional urban composition and residential compounds, illustrating the spatial structure containing compounds of yards and residential clusters. At the household level, gating refers to a physical and social space, represented by stable governance. At the neighbourhood level, the ancient planning system strictly defined the boundaries of a community, and the different social classes were sorted into particular areas. Although such a physical boundary does not exist today, the strong social hierarchy still influences social consciousness toward being homogeneous. Behind such awareness are the demands of social division, which could eventually be transformed into a gated settlement, dividing the civilised living form from the extensive rural environment. Meanwhile, self-contained living forms were developed due to public sectors’ attempts to reduce public expenses for improving the suburban living environment.

Social class differentiation is often marked by occupation and income, intensifying the spatial discrepancy in the context of the booming suburban housing market. In other words, a household’s socio-economic status is often defined by his residential type, residential density, and transport method. The features are concealed when the lifestyle is in an urban area, while the desire to establish a social status is rapidly revealed when a household has the ability to choose another lifestyle in a new social environment. The trend of living in gated communities can also be elaborated by the long-term impact of a work-unit compound. Suburban residents have the comfort of living in an enclosed environment with small groups of neighbours who have the same interests and similar preferences. An ideology consists of a transformative utopia revealed by vulnerable social trust, which emerged in the context of homeownership. Although visual identity weakened the impacts on spatial differentiation in the physical sense, the social issues cannot be neglected. Residents with different income levels remain stuck in certain forms of residences due to the filtration effect of housing prices.
Furthermore, living in the same residential compound has not alleviated the effects of different forms of consumption, lifestyles, and demands. Instead, living in a mixed neighbourhood stimulates the discrepancy, which forces the local government to adjust the land leasing policy to address emerging neighbourhood conflict.

The income gap also criticised the approach in addressing rural-urban inequality. The massive development regards affordable housing and the low cost of commercial housing to have rapidly emerged due to the increasing numbers of relocated households, who were forced to move out of the city due to urban regeneration. The housing supply was not able to guarantee the housing demands of the masses. Therefore, the district government intervened in the housing market, ruling that the expansion of home projects should provide certain amounts of housing for rigid homebuyers. Real estate developers provided various forms of housing with different residential densities, building heights and plot ratios in exchange for development rights. This resulted in a huge residential project in Jiangning, which contains various forms of housing.

Income inequality is a crucial issue in slowing mixed-housing growth as well. Accommodating wealthy and low-income classes in the same community led heterogeneous, suburban residential development to be questioned. On the one hand, ordinary residents have access to affluent lifestyles, and better material conditions intensified ordinary residents’ awareness of the uneven distribution of social resources; on the other hand, the younger generation began to rely on land policy dividends to aggressively accumulate wealth, leading property investment to become an important task for Chinese families, which stimulated land development. Although suburban settlements with mixed-housing forms are widespread due to the government’s attempt to build a harmonious society, they also test a hypothesis whereby this kind of spatial layout comes to resemble a “mosaic of social worlds” (Timms 1975). Furthermore, the next chapter attempts to test how residents’ different housing preferences and diverse attributes affect suburbanisation in China.
Chapter Six: Moving to and living in Jiangning: Dynamics and social impacts

6.1 Introduction

This chapter analyses how residential development in Jiangning is influenced by residents’ diverse socio-economic attributes, housing preferences, and reasons for moving. China’s rapid suburban growth involves diverse factors, including institutional and social changes, rising housing consumption, and preferences. Institutional changes, particularly the introduction of a land leasing system and fiscal decentralisation, have together offered great incentives for local governments and various agents to undertake large-scale suburban development. Without pent-up demand for new housing on the urban edge, recent suburban expansion would not occur on such a massive scale. The newly arrived residents and their preferences are also significant influences in shaping the suburbs.

Social changes, particularly the partial urban and rural landscape of land use, represented early suburban forms in many Chinese cities, which contained the hybrid and geographic features of local and extraneous patterns. Since large amounts of foreign capital were invested after 1995, its social and economic environment became more complex, with more heterogeneous dynamics than in urban and rural areas. In other words, the space itself provides a suitable environment to develop diverse forms of suburban residences.

Since 2000, three important factors have made the idea of living in Jiangning possible, appropriate, and even desirable: firstly, the relaxation of urban population control and the abandonment of the welfare housing allocation system; secondly, the rise of consumer culture; and thirdly, the strategy of increasing urbanisation. First and foremost, people are now free to choose where and how to live. While millions of migrants have flocked to large cities for opportunities, an increasing number of better-off families have moved to and live in their dream houses in the suburbs. Urban
residents are experiencing a consumer revolution, with an overall improvement in personal disposable income and living standards. In search of their dream home, people are beginning to consider elements beyond mere basic housing needs including comfort, privacy, safety, and symbolic significance. Finally, the suburbs have been turned into better places to live through huge investments in housing and building infrastructure.

The burden of commuting to jobs in the central city has been greatly eased by newly built highways and metro links. Other obstacles, such as a lack of living facilities and other services, are being progressively mitigated. Added to this are the great marketing efforts which is contributed by the collations of governments and developers. Moving to the suburbs now means lower housing prices, a larger living space, and a better environment.

Housing consumption and residential preferences are regarded as a significant driving force for suburbanisation in the western suburbs. Meanwhile, the heterogeneity of the Chinese suburbs has been widely noted. Existing studies now indicate that, alongside the increase in housing reform, some of these elements have become increasingly apparent in China’s current suburban development. Many gated suburban communities are packaged as western suburbs to meet homebuyers’ demand for the “good life” (Wu 2010). Nevertheless, there has long been a perception that suburbanisation in China could by no means be based primarily on lifestyle choices by more affluent people (Li and Wu 2008, Zhou and Logan 2008). However, the driving forces of demand underlying such spatial heterogeneity remain unclear, and there is a lack of empirical studies on this topic.

Several questions need to be answered: Who are suburbanites and what has driven them to move to the suburbs? What is the mechanism underneath becoming a crucial force in shaping dynamic social patterns and suburban residential development? What socio-economic factors influenced the transformation of residential preferences? Remarkably, the industrial tactics of the local government, planning intentions, growth coalitions between the local government and private sectors, and the mode of governance are important factors that determine heterogeneous suburban residential
development. Furthermore, the social implications of suburban theories need to be discussed by hypothesising the trend of suburbanisation in China.

6.2 The growth of suburban residents and social patterns in Jiangning District

6.2.1 Population growth and the booming housing market

Jiangning enjoyed the largest population growth among all of Nanjing’s districts from 2001–16, as its population rose by 162.9% from 0.746 to 1.215 million. Moreover, the growth reflects intensive urbanisation. By the end of 2016, more than 0.868 million residents, representing 71.52% of the total, were living in urban settlements. Accompanying this unparalleled growth was an ever-booming housing market. Since the rise of the administrative level, Jiangning has not only witnessed continuous hikes in real estate investment but also an ongoing increase in housing prices in both the primary and second housing markets.

Rapid population growth and a thriving property market were no means driven by a single force. The local state has managed to develop Jiangning grounded in two mutually reinforcing accumulation systems: one based on manufacturing and the other on land development. Correspondingly, Jiangning’s expansion involves four interwoven processes: industrial restructuring, rural-urban migration, urban-rural integration, and capitalisation. Each results from both institutional changes as well as individual choice, creating a prosperous, heterogeneous suburban landscape. In addition, three types of social group comprise Jiangning’s mainstream suburban population structure. First, local settlements, primarily represented by rural residents who relocate during land acquisition. This group includes part of the young rural generation, whose members intend to purchase urban housing due to marriage. Second group is low-income residents who passively move to Jiangning due to their urban homes being demolished in the massive urban regeneration. Third group is relocated, high-income residents who voluntarily move due to the natural landscape or new jobs.
In the rural part of Jianging, local residents include industrial workers and township residents, but they do not settle in the urban settlements; thus, it is difficult to strictly define them as suburban residents. Although the morphology of their residential forms coexists with homogeneity, their socio-economic backgrounds are diverse. Furthermore, the scale of the community reflects spatial differentiations as well. Therefore, this study on residential forms in Jiangning contributes to the understanding of how diverse social groups move to and live in the suburbs.

6.2.2 Industrial restructuring

The first process is the economic growth of the whole metropolitan area, which brought a huge surge in jobs and attracted an influx of migrants (Table 6.1). By 2009, a total of 297,372 migrants had arrived in Jiangning, representing 23% of the population. Compared with other suburban districts in Nanjing, two important factors attract migrants to come for jobs. The first is rapid growth of urbanisation and the second is industrial scale. During the Eleventh Five-Year Plan period, the local government established a goal of urbanisation over a short period of time to improve the urbanisation level. This goal, called “Accelerating the Construction of the Nanjing Metropolitan Area”, aims to build an urban system with three new towns and one central area, forming a polycentric spatial structure.

The high-speed railway from Beijing to Shanghai via Nanjing, and the Nanjing South Railway Station, which locates in Jiangning, promoting the industrial restructuring, including high-tech industries and advanced manufacturing industry. The new railway station in Jiangning optimised Nanjing’s urban spatial layout, decentralising public transport hubs from the urban centre to peripheral areas. By 2015, the annual total passenger flow of Nanjing South Railway Station exceeds 14 million. About 80% of the passenger flow is to the main city. Thus, the overall strategy of infrastructure development is to shorten commuting times, and to integrate Jiangning into Nanjing’s urban area. An extensive improvement of service industries and infrastructure has attracted a large number of investments, which in turn have brought an influx of migrant workers. For achieving fast transportation between Jiangning and other cities
in China, developing new airport terminals and logistic related industries is an important link in optimising the labour force structure. For optimising the functions of new terminals at Lukou Airport, belt highways were further developed to form traffic layout that connecting the logistics centre of Jiangning with Nanjing within half an hour. By the end of 2015, the highway’s total length reached 2,027 km, and the airport operated nearly 120 domestic and 23 international routes. In terms of over-ground public transport, over 954 buses provide services in Jiangning. According to the traffic routes, the links between Jiangning and the city include over eight routes of highways to provide fast commutes. With the rapid development of infrastructure, Jiangning has become an important industrial base to connect with the area around. By 2010, the accumulated infrastructure investment was over 17.47 billion Yuan and accommodated more than 88,983 workers in the industrial parks, representing a year-on-year growth of 22.94% and 35.27%, respectively. Moreover, 748 businesses were founded by 2010, which is year-on-year growth of 9.20%. More than half of industrial output value is contributed by non-local companies, and a large part of the rest is for supporting enterprises directly in Nanjing. Industrial parks play a leading role in Jiangning’s urbanisation process.

Table 6.1 Development and construction data between 2009 and 2010

<table>
<thead>
<tr>
<th>Index</th>
<th>Unit</th>
<th>2010</th>
<th>2009</th>
<th>Compare 2010 to 2009 +/- %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated infrastructure investment</td>
<td>Yuan ( Millions)</td>
<td>1,747,371</td>
<td>14,21,265</td>
<td>22.94</td>
</tr>
<tr>
<td>Years of settling the labour force</td>
<td>People</td>
<td>88,983</td>
<td>65,782</td>
<td>35.27</td>
</tr>
<tr>
<td>Operating businesses at the end of the term</td>
<td>Number</td>
<td>748</td>
<td>685</td>
<td>9.20</td>
</tr>
</tbody>
</table>

Source: Jiangning Statistical Yearbook (2010)

Industrial clusters in Jiangning began to emerge in 2003. Along with the establishment of a sustainable economic path; that is, industrial parks in Jiangning have become an economic growth pole in which the majority of industrial enterprises are concentrated.
Clusters of the automobile, equipment manufacturing, electronic information, new architectural materials, and medicine industries have formed to support the expansion of the higher education industry.

According to the data of Jiangning’s Industrial Structure Research Report for the Twelfth Five-Year Plan period, the proportion of large cluster industries accounted for the added value of the manufacturing industry, which increased from 26.32% in 2001 to 54.55% in 2008. With the expansion of industrial clusters, a large number of migrant workers moved to Jiangning. The number of temporary residents increased significantly, accounting for 34.6% of the total population in 2007. Migrants also bring innovation to enterprises. By 2010, the number of approved research and development centres reached 59, including one national, seven provincial, seventeen municipal, and thirty-four district level innovation centres, as well as six post-doctoral workstations directly involved in product and project research, with a research staff of more than 14 thousand people (See Table 6.1).

Table 6.2 Summary of entrepreneurial categories in Jiangning’s three major industrial parks

<table>
<thead>
<tr>
<th>Industrial Park</th>
<th>Entrepreneurial category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jiangning Economic Development Zone</td>
<td>Electronic information, automobile manufacturing, electricity and IT. It has attracted more than 1,800 projects in forty-two countries and regions including the United States, Japan, Germany, Sweden, South Korea, Taiwan, and Hong Kong. More than 300 projects invested over 10 million USD, including the world’s top 500 companies: Ford, Mazda, Siemens, Motorola, Ericsson, Hitachi, and 36 other enterprises.</td>
</tr>
<tr>
<td>(Established in June 1992)</td>
<td></td>
</tr>
<tr>
<td>Jiangning Trade Zone</td>
<td>The development of new and high-tech enterprises initially formed five leading industrial clusters (i.e. automobile, equipment manufacturing, electronic information, new architectural materials, and medicine). More than 360 domestic and international companies (including 12</td>
</tr>
<tr>
<td>(Established in June 1994)</td>
<td></td>
</tr>
</tbody>
</table>
worldwide) and 500 strong enterprises have settled in Jiangning Economic Development Zone.

| Bingjiang Economic Development Zone (Established in October 2003) | A cluster of specialised and general equipment manufacturing; a cluster of precision machinery manufacturing; a cluster of electronic and transportation equipment manufacturing. |

6.2.3 Rural-urban Migration

One of overall goal of urbanisation in Nanjing is to transform the rural population into an urban one. The rise of high-rises, wide roads and squares, urbanised rural population can be seen as a fundamental process of transforming the social status of rural migrants. Furthermore, rural-urban migration also demonstrated in transforming agricultural productive work into non-agricultural productive work, and integrating rural and urban landscape. With the demanding for labour forces in the growth of industrial restructuring, the income gap between manufacturing and agriculture is expanding, which attracts young rural people passively or voluntarily move to the Jianging for higher salary.

In addition to employment opportunities, the demand of urban housing before marriage drives young rural families to move to Jianging. On the one hand, when choosing a residential location, rural residents often tend to approach the project where locates close to the former settlement; on the other hand, raising the level of planning and governance promotes largely improvements in the landscape of villages. Many villages have been regenerated and developed as the leisure resorts. Thus, former villagers return to rural area and be employed by leisure resorts to engage in service industry and tourism. The rise of service industry in the peripheral area of Jiangning makes rural residents and migrant workers no longer take manufacturing as the main type of employment. The growing rural tourism effectively solve the housing demands in Jiangning as existing residents can reduce the cost of living in the urban settlement. Furthermore, the vacant homes in the villages can be rented out for increasing revenue. Most of tenants are private developer and state-own sectors. They found that the natural environment in the countryside and laid-back lifestyle were
rare in the urban lifestyle, which are also the life that the urban rich aspire to. By reforming rural settlements into villa-styled homestays, the former villages have been turned into the resorts complex that contributes significant economic growth.

However, there are also some challenges in implementing rural-urban migration. Firstly, the urbanisation rate of the registered population is 50%, which is well below the rate of Nanjing. This is resulted by rural residents not always willing to give up rural land and moving to urban settlements. Secondly, for expanding the metropolitan boundary, the administration level of rural towns was widely merged into urban street administration. So that the former hukou classification of local rural residents obtained urban hukou, which demonstrated the increase of urbanisation. Thirdly, many rural residents who “transform” into urban hukou while retaining rural lifestyle. This is because under the influence of urban sprawl, the form of villages experienced urbanisation, while due to the delay of rural education development in the past, former rural residents only can engage in low-skilled jobs.

6.2.4 Urban-rural integration

For addressing the urban-rural integration and further activating the economic benefits of the rural population, there were two development strategies were implemented, respectively known as “Urban-rural Integration at Regional Level” (UIRL) and “Intensification of Rural Land Transformation” (IRLT). In terms of UIRL, local government play a significant role in protecting the asset of rural residents during the process of rural land transformation. The method is implanted at two aspects, one is to encourage setting rural collective economic organisation and to develop the rural cooperation in the form of shareholdings by farmers. Rural residents in Jiangning were given the rights to own shares of collective asserts, making profits from collective resources and asserts. The other method is to reform and improve the system of homestead while guarantying the real right of farmers’ homestead. Rural residents who work in the urban area of Nanjing and other cities are allowed to withdraw from contracted land and homestead and be compensated basis by the land value. In terms of IRLT, a market for transferring and trading of rural property rights was established.
to intensely reform the property rights system. The trading contents include the right of using land for rural collective construction and the right to contract and manage collective assets. The market-oriented rural land system promotes the capitalisation of agricultural and rural resources for increasing the income of farmers from rural property. In addition to encourage rural residents to proceed non-agricultural jobs without concerning of the asserts of rural property, Jiangning district government supports the growth of agriculture industrial enterprises, providing credit funds, and offering technology support to enterprises that produce deep-processing agricultural products. Moreover, rural residents are given more autonomy to participate in planning and construction through the introduction of a relatively equitable welfare system that proposes a non-discriminatory labour market for treating migrants. These regulations and implications not only put forward the way to increase the revenue of farmers at institutional and mechanical level, but also promote equal exchange of factors between urban and rural areas, balancing allocation of public resources for establishing an integrated infrastructure and public service system for rural areas.

6.2.5 Capitalisation of land market with government-led strategy

In addition to intensifying the welfare system for rural migrants, Jiangning’s government directly allocates resources to encourage the improvement of the land market. These strategies usually manifest as tax deductions and exemptions, subsidies, direct investments, funding, and land allocation. For example, regarding the foreign-funded project of land purchase in Jiangning Development Park, with a registered capital of less than $10 million, the district government shall grant a 30% tax exemption in the land transaction; registered capital of $10–20 million in grants of a 40% tax exemption; and a 50% exemption for more than $20 million in foreign-funded projects. Thus, the local government tends to propose flexible policies to encourage enterprises to participate in market competition. Two strategies were adopted in the process of urban expansion to correspond to different stages of development. In order to meet the needs of large-scale and high-speed industrialisation, and to attract labour force, the number of new towns has increased rapidly. Emphasising the quality of urban development is another strategy to meet the
diversified demands of urban living. The service industry has become a strong driving force in leading suburban growth from labour-intensive to comprehensive transformation through capital and technology.

A series of planning projects encouraged the local government to further open the service sector to foreign enterprises in order to vigorously draw investment in major urban projects. Two strategies have had a profound impact on suburban development in Jiangning. Firstly, the employment environment is a strong cohesive force; profit and wage differentials attract and support high-end industries and high-level talent. The increased income of employees in Jiangning means a rise in purchasing power and the diversification of demand. Thus, strong demand can support the growth of large-scale businesses and shopping districts. Secondly, the accumulation of high-profit enterprises and high-skilled talent brought a new lifestyle to Jiangning that fosters cultural accumulation. Lastly, local residents’ educational attainment is low, especially compared to migrants from other areas. As a result, the strategy of improving high-quality urban development motivates local residents to study.

6.3 Living in Jiangning District: Housing choices and preferences

As a formal development, Jiangning is deliberately designed as a packaged suburbia featuring aesthetic landscapes, all-around amenities, and a high-quality environment. Self-led informal development, known as urban villages and widely found in peri-urban areas is almost absent here. Housing development in Dongshan and Muling is strongly guided and controlled by government-led master plans, emerging as a form of commodity housing. Over the years, natural population growth has been relatively low in Jiangning. Hence, in addition to encouraging the rural population to move to the city, another strategy is to ensconce the migrant population, especially high-skilled practitioners. Reforming hukou and housing policy, as well as raising welfare conditions, especially health care and education to help young graduates and other
high-skilled migrants settle, became a key strategy of government-led new town development.

In the new mode of land development, government sectors supervise the entire process and share agreed upon profits from land expansion with land development enterprises. The commodity housing market is undergoing rapid growth, attracting more than 650 thousand residents to live in these areas. Led by government and planning sectors, real estate development is transforming from providing housing for the sub-divided market to acquire profits into improving the environment and quality of suburban life in order to establish a brand effect, which has become the new mode of land development. Furthermore, large real estate enterprises take responsibility from the government for public services and infrastructure maintenance.

6.3.1 Types of housing choices: Villas versus apartments

As a formal development, Jiangning is built as a metropolitan suburb featuring a well-planned spatial layout, surrounded by an aesthetic landscape and high-quality environment. Informal development – known as urban villages and other self-led residential growth – is nearly absent here. For the purpose of analysis, only formally-developed estates built after 2000 in Jiangning are considered. Although different forms of housing in Jiangning were analysed in the above chapter, the forms are designed to meet the needs of a diverse housing market. The Ministry of Housing and Urban-Rural Development (MOHURD) of the People’s Republic of China regulated two types of formal urban residential developments in legislation. Type 1 is usually represented by villa-style housing, featuring a complete set of facilities and spatial layout of the land. A villa-style home is basically less than three floors. Type 2 housing usually contains the housing type which low-rise, mid-rise, and high-rise apartments features a complete set of facilities and spatial layout of the land.

In this study, two major types of housing are identified, which contrast with each other in term of spatial forms and social groups. Firstly, single-family or villa-style homes have emerged to distinguish the suburbs from the central city. Most villas were built
into gated communities featuring spacious rooms and decorative styles. Yet while single-family homes are accessible to the middle class in western countries, villas in Jiangning are solely an upscale market for the elite. To cater for their tastes, villas are present around the extraordinarily natural landscape and located far away from crowded urban areas and mass transit, revealing the features of introverted clustering, with a landscape as the core. However, these communities do not have many permanent residents. This is firstly because most villas’ residents still have business in the city and enjoy urban convenience; thus, these forms of suburban housing are merely used as second homes or holiday resorts. High-income villa residents often value the privacy of their luxurious homes rather than acquiring rental income, so most houses remain vacant for a long time.

Furthermore, mid- to high-rise apartments, which are not common in western suburbs, are widespread. Driven by loose land policies and short-term returns on real estate development, earlier growth in Jiangning was dominated by low-density villas, mid-rise, and high-end estates, which satisfied rich people’s pursuit of living quality. As the market positioning aimed to establish a lifestyle as the premise, suburban housing was not designed to meet rigid demands. This led to a large house, garden, and high return on investment becoming three important labels to describe these residential forms.

As mentioned before, alongside restrictions on low-density development introduced by the government in 2003, apartment projects began to increase and became the dominant form. Similar to suburbs in the United States, rising apartment construction in Jiangning reflects residents’ economic income, social status, and interest. They demand transport facilities in the peripheral areas of their settlements. Hence, the communities present a spatial pattern layout along the two sides of the main streets. Moreover, the apartment market shows greater diversity and highlights differentiation. Small-unit apartments are clustered along the metro line to attract young and single families with lower incomes. Large-unit apartments usually target married couples who require space and a better environment for their children. Thus, the estates often include parks and are situated near schools. Large and small-unit apartments are normally mixed in one gated community per planning policy requirements, which means that in addition to housing types, diversity also emerges in the residential forms.
There is another type of suburban apartment: the resettlement home. The former development had distinct forms, showing high density and located near industrial areas. However, as isolated sites with limited land resources, the government often requires real estate developers to build resettlement homes in the projects while developing commodity housing. In other words, without knowing the residents’ social status, it is difficult to distinguish between resettlement and commodity apartments, as both are planned in order to dispel homebuyers’ concerns.

6.3.2 Preferences of housing choices

The diversity of residential development in Jiangning is bound to occur under a combination of policies and intentions on the part of states and local sectors. The fiscal reform in 1994 greatly stimulated local economic growth. Furthermore, Jiangning’s government showed a strong willingness to integrate into Nanjing’s rapid development. Large-scale expansion of high-end suburban residences is a way of attracting the urban population and increasing local revenue as well. Improving the environment and raising land value by using profits from high-end residential development is another strategy to ensure the sustainable operation of capital.

As the manager and participant of urban management, the Jiangning Land and Resources Bureau has led the development of real estate, which also initiated an economic structure for the suburban housing supply. Combining the push effect from the urban centre with the pull effect of Jiangning, the location preferences for new homes turn to suburban areas. Firstly, the No. 2 metro line and the city ring road enter Jiangning from the city region. Mega-infrastructure greatly reduces commuting time and traffic costs, providing people and companies with the possibility of settling in peripheral areas. Secondly, since 2003, large-scale urban renewal has decentralised the population and industry.

Passively relocated, low-income urban residents comprise the majority of the displaced population, as well as involuntarily relocated middle and high-income residents seeking a higher quality of life. In terms of the pull effect, the transformation
of the industrial structure, combined with the booming university park, brought about a social stratum dominated by senior technical managers and intellectuals. Thus, in addition to housing demands, migration structures have caused more diverse preferences for housing types. Real estate developers maximally pursue profit to meet the housing demands of high-income residents, who often wish for “exclusive,” large-unit and high-end residential communities with superior ecological environments. Those who desire affordable price with rigid housing demands are not interested to the developers. The homogeneous development orientation accelerates the process of segregating residential spaces in Jiangning, which is an important reason for the imbalance in housing supply and demand.

Social class differentiation is reflected in the preferences of housing location, causing residents with similar socio-economic status and cultural preferences to voluntarily move to the same cluster. Furthermore, high-income groups continue to purchase and hold other estates to preserve and appreciate their assets to avoid rising inflation, a common phenomenon in Jiangning. In the absence of effective government regulation, housing prices soared and a high vacancy rate emerged in a large number of middle and high-end communities. At the same time, rigid demand homebuyers can only sustain the pressure of high housing prices, choosing relatively cheap, small-unit apartments. Thus, the location gradually moved from the inner to the outer suburbs.

Residents’ social, economic, and cultural features affect the preferences of residential location and type either directly or indirectly. First of all, the influence of economic factors on housing demand and preference is significant. Due to high consumption ability, high-income groups value cultural tastes and individualism as important elements in pursuit of the environment and housing style. For instance, upper-middle income groups value a superior ecological environment and affordable price at the same time. Middle and lower-income groups are limited in terms of what they can afford and can only choose to live in a place where the overall price is low and work is convenient. Secondly, depending on the phase of the family lifecycle, the requirements for a residential space vary. The factor of education influences married households and single residents differently. In Jiangning, there are many high-end private kindergartens in the upscale community, while the education level in primary
and middle schools has a certain gap compared to the urban area. Therefore, middle and upper-income residents are mainly young and middle-aged, under thirty-five years old. The location of their housing preference needs to change dynamically with the shift in family structure, especially when their young children grow up.

Transforming Jiangning from a suburb to an urban district that contains diverse residential spaces has become a sustainable method of new town development. It is a long-term strategy driven by the local government and the state. The preferential function of new town development is to build homes, and defining the needs of a space involves the dual features of physical and social space. In Nanjing’s existing new town development, the contributions have focused on the economic benefits for residential spaces brought about by real estate development, while the social attributes of suburban residential growth remain under-studied. The “economy plus space” and “social plus space” elements play a significant role in determining what forms suburban residences take in Nanjing, and how are they developed in diversified way. By examining different residential spaces and dynamic mechanisms of movement, empirical evidence tends to constantly enrich the theoretical and empirical contributions on suburbanisation, and to reveal the significance of strong governance in Chinese cities.

6.4 Heterogeneous living: Empirical evidence

6.4.1 Data and modelling

The survey covered all urban areas in Jiangning, generating a random sample of 300 face-to-face questionnaires in total. The sampling method is explained in Chapter 3. Based on sampling according to neighbourhood type, the model effectively reduced sampling errors by ensuring the elements were drawn from homogeneous strata, and hence ensured the strength of the representativeness of the sample (Rubin and Babbie 2007). For the purpose of this study, rather than classify their current hukou location, all households were categorised into three groups according to their origin before they moved to Jiangning. Firstly, the overall comparison of the three groups was conducted through an ANOVA analysis or a Pearson’s chi-square test. Secondly, multinomial logistic regression analysis was applied to test spatial sorting of the three
groups and the resulting spatial differentiations. The models have been extensively applied to identify significant factors in the study of housing relocation and migrant research (Shen and Wu 2013, Wu and Logan 2016). Meanwhile, few Chinese studies of neighbouring cover migrant neighbourhoods, except (Li and Wu 2013). However, the models have less used on the research of relationship between suburban residents and their residential preferences. So in this study, the models can be used to explore and explain the motivations of suburban residents in China to choose a particular residence.

In the models, the outcome variables are categorical, and the model is used to test which category a household is likely to fall under, given certain other details. Specifically, the outcome variable of the first model is the place of origin, examining whether the identity of a household in a certain group is associated with the housing type and the place where they live. The second model uses the housing type as its outcome variable, testing the probability of a household living in a villa versus apartment, and hence identifying the differences between households in different housing types. In the third model, the outcome variable is the district; it addresses how different attributes of a household might influence the chance of a family living in different districts. For each model, there are three sets of variables in total.

The first set comprises socio-demographic variables, including age, educational attainment and income, the origin of place, hukou classification, housing tenure, and car ownership. The second set consists of variables concerning residential mobility. One is related to push factors affecting residential moves, whereas the other is the pull factor that has attracted residents to their present homes. The last set includes spatial-related variables, namely housing types and districts. Furthermore, qualitative analysis was carried out based on interviews with realtors and staff in residential committees, as well as different types of residents, to help explain the quantitative results and reveal residents’ housing demands and residential choices.

Different social statuses are subject to different structural conditions and result in the lifestyles people choose. This is reflected in life and living quality, especially among residents with similar living conditions and lifestyles (Fleischer 2007). Although
housing price can normally be used as an important indicator to determine a household’s income level, the household members comprise another significant factor in determining housing type. Thus, in this study, the median income is used to identify the range of middle-class income. The existing study identified people with a 50–200% median income as middle-class (Burtless 1999). However, the current pyramid social structure in Jiangning is different from that of developed countries, where the middle class population accounts for the majority of the population. Based on the setting of monthly income in the questionnaire, residents with monthly median income between 5,000 to 19,999 Yuan are defined as middle-class. Meanwhile, according to the median of per capita disposable income in Nanjing (46,813 Yuan/year) and the ratio of housing price to income, housing prices from 19–23 thousand Yuan/m² are identified as the category to which most middle-class households belong.

6.4.2 Results: Socio-economic profiles

Table 6.3 shows the socio-economic profiles of the three groups. Overall, except for monthly family income and car ownership, all other aspects are disproportionately distributed among the three. Migrants are essentially different from the other two groups. This group, as expected, is more likely to be comprised of young and single or married individuals, but separated from their spouses. About 41% are still registered under agricultural hukou, while the proportions of local natives are equal to those of migrants. People from Nanjing only account for 16.4% and are still registered under agricultural hukou.

In terms of educational attainment, the proportion of people with higher education within the migrant group is only 21.2%, in contrast to the local group’s 48.6%, and the group from Nanjing, which is 30.2%. From an economic angle, it seems difficult for migrants to enter the public sector and state-owned enterprises (SOE). Moreover, their access to homeownership is limited. About 75.6% of migrants live in rental housing, while only about 11.1% of locals and 13.3% of Nanjing residents demonstrate the results. Nevertheless, the proportion of high-income families in the migrant group is not less than in the other groups. This is because not all migrants are unskilled workers.
This group also includes well-educated migrant professionals and wealthy investors running businesses in Nanjing.

Locals and those from Nanjing are similar in many respects, as people with urban hukou registration dominate both groups. About half have formal jobs in private or foreign companies. More than 52% of locals work in state-owned enterprises (SOE), and about half have jobs in private enterprises because a large number of locals were originally farmers and given employment compensation during housing relocation for changing their workplace from agricultural land to factories. However, they have their own homes in urban areas, with limited educational attainment and skills that might make it difficult for them to find new livelihoods. Therefore, locals have the highest proportion of low-level educational attainment and low-income households.

Table 6.3 A comparison of socio-economic profiles among the three groups

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Value</th>
<th>Local (%)</th>
<th>Nanjing (%)</th>
<th>Other places (%)</th>
<th>χ² significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>12.9</td>
<td>19.0</td>
<td>34.9</td>
<td>19.2</td>
</tr>
<tr>
<td></td>
<td>Married and living together</td>
<td>80.0</td>
<td>74.7</td>
<td>53.9</td>
<td>73.1</td>
</tr>
<tr>
<td></td>
<td>Married but separated</td>
<td>4.5</td>
<td>3.8</td>
<td>9.5</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>2.6</td>
<td>2.5</td>
<td>1.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Educational attainment</td>
<td>Primary and below</td>
<td>9.7</td>
<td>5.1</td>
<td>9.5</td>
<td>8.4</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>20.6</td>
<td>10.1</td>
<td>15.9</td>
<td>16.8</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>69.7</td>
<td>84.8</td>
<td>74.6</td>
<td>74.7</td>
</tr>
<tr>
<td>Hukou classification</td>
<td>Non-agricultural</td>
<td>81.9</td>
<td>86.1</td>
<td>55.6</td>
<td>77.4</td>
</tr>
<tr>
<td></td>
<td>Agricultural</td>
<td>18.1</td>
<td>13.9</td>
<td>44.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Employer type</td>
<td>Public sector</td>
<td>15.5</td>
<td>17.7</td>
<td>14.3</td>
<td>15.8</td>
</tr>
<tr>
<td></td>
<td>SOE</td>
<td>23.9</td>
<td>17.7</td>
<td>30.2</td>
<td>23.6</td>
</tr>
<tr>
<td></td>
<td>Private/Foreign/Joint</td>
<td>15.5</td>
<td>27.8</td>
<td>9.5</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>enterprise</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Private</td>
<td>15.5</td>
<td>8.9</td>
<td>33.3</td>
<td>17.5</td>
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</table>
### Table

<table>
<thead>
<tr>
<th>Monthly income</th>
<th>Other</th>
<th>Business owner</th>
<th>Other</th>
<th>Business owner</th>
<th>Other</th>
<th>Business owner</th>
<th>Other</th>
<th>Business owner</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5,000</td>
<td>3.9</td>
<td>0</td>
<td>1.6</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>29.7</td>
<td></td>
<td>39.7</td>
<td>27.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000-19,999</td>
<td>37.4</td>
<td></td>
<td>33.3</td>
<td>37.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;20,000</td>
<td>29.0</td>
<td></td>
<td>48.1</td>
<td>25.4</td>
<td>33.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

χ² = 21.163
p < 0.001

<table>
<thead>
<tr>
<th>Housing tenure</th>
<th>Own</th>
<th>Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96.8</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>92.4</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>46.0</td>
<td>54.0</td>
</tr>
<tr>
<td></td>
<td>84.8</td>
<td>15.2</td>
</tr>
</tbody>
</table>

χ² = 94.494
p < 0.001

### Results: Location preferences and residential mobility

Taking advantage of the natural landscape and improved infrastructure, Jiangning is a rapidly growing housing market in Nanjing. Even though it is far from the city centre, for a middle-class family with a car, it is still an ideal place to live. Real estate development is mainly concentrated at road junctions, in the economic development zone, and nearby towns. On the one hand, as a new development area, the average housing price is 30–50% lower than in the urban centre; on the other hand, low density provides a possibility for young white-collar and middle-class families seeking a better living environment.

Moving to the suburbs is often driven by push and pull factors. Push factors give rise to the imperative to move. In addition to voluntary movement, personal reasons are associated with housing relocation (referring to housing relocation and rural-urban land use transformation). Relocated households have to give up their land or previous settlements for urban infrastructure development and urban regeneration projects by moving to compensatory settlements in the suburbs.

Housing consumption also plays a dominant role in determining motives, indicating that with rising income level, residents demand to improve their living conditions by upgrading their housing. The last factor is related to life demands such as marriage, changing one’s job, and better schooling for one’s children. The survey indicates that besides urban and local households, suburban residents in Nanjing come from other...
places as well, represented by migrants. However, their consumption power is the same as that of locals.

This study produces a cross-tabulation to analyse the relationship between the push factors and the three groups of suburban residents. The push factors include housing consumption, life-related reasons, involuntary and voluntary reasons, arguing that besides the various moving motivations between each group of residents, the motivations of certain groups differ as well. The findings suggest that involuntary movement and housing consumption dominate the motives, and a number of moves are life-related. The outcomes reveal that although massive state-led land development results in locals giving up their previous homes and land, huge housing and cash compensation drive them to purchase more real estate to enhance their living conditions and prepare a home for their children’s marriage. According to an interview with an urban planning official, “the locals have a strong sense of belonging because they used to work and live here for a long time. Hence, the majority of commodity homes were built on primary land owned by the locals” (Interview, 2015).

The findings also imply that the motives of locals and central Nanjingese vary, indicating that better living conditions comprise an important factor in attracting urban households to move to the suburbs. Although voluntary moves prevail, there are still a fair number involuntary ones. This shows that urban relocated residents have to suffer increased commuting costs and passively accept their new lifestyle since they gave up their previous urban settlements. With regard to migrants, both life-related and involuntary moves are equally dominant, suggesting that job opportunities and passive changes in the workplace force migrants to live and work in Jiangning. This also reflects suburban growth, which depends deeply on the development of local enterprises, rather than land expansion itself. On the contrary, migrants are less concerned with housing consumption factors.
Table 6.4 The major factors of residential relocation among the three groups

<table>
<thead>
<tr>
<th>Push factors</th>
<th>Groups (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local</td>
<td>Nanjing</td>
</tr>
<tr>
<td>Housing-related</td>
<td>35.4</td>
<td>44.3</td>
</tr>
<tr>
<td>Life-related</td>
<td>23.2</td>
<td>25.3</td>
</tr>
<tr>
<td>Involuntary</td>
<td>40</td>
<td>26.6</td>
</tr>
<tr>
<td>Other voluntary factors</td>
<td>1.3</td>
<td>3.8</td>
</tr>
</tbody>
</table>

($\chi^2$ Value=13.135; Significance=0.041)

Pull factors are the particular attractions of a certain locality or estate. Respondents were asked to report the most critical factor that “pulled” or attracted them to where they live now. Specific attributes were grouped into six categories: (1) a good environment, (2) rapid transportation access, (3) job opportunities, (4) cheap housing, (5) high quality estates, and (6) others. The first four are attractions of Jiangning, whereas number 5 is an attribute of particular homes and neighbourhoods. Table 6.4 displays the frequencies of these factors by group. The three groups reveal similar motives for moving into their current homes, which include the influence of a good environment.

Firstly, locals and those from Nanjing are more environmentally-oriented. Among the respondents in the two groups, those that moved to Jiangning due to environmental factors make up the largest group. This reflects Jiangning’s transformation from a traditional urban edge into a nature-oriented urban settlement. Non-Nanjing hukou respondents have high regard for a high-quality suburban living environment, better urban planning and peripheral life service facilities, while locals prefer local amenities. Respondents from Nanjing were particularly concerned about a high-quality living environment and the surrounding urban facilities. In addition to environmental preferences, the frequency of local respondents’ choices in terms of traffic accessibility was significantly higher than that of the other two groups, and the employment advantages of non-Nanjing hukou residents revealed a higher frequency than those of the other two groups.
Table 6.5 Major factors that residents considered in moving to their current homes

<table>
<thead>
<tr>
<th>Pull factors</th>
<th>Other places</th>
<th>Local</th>
<th>Nanjing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Suburb with a good environment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A good city plan</td>
<td>20.6</td>
<td>17.4</td>
<td>13.9</td>
<td>17.2</td>
</tr>
<tr>
<td>University town</td>
<td>11.1</td>
<td>4.5</td>
<td>5.1</td>
<td>6.1</td>
</tr>
<tr>
<td>A good living environment</td>
<td>27.0</td>
<td>15.5</td>
<td>40.5</td>
<td>24.6</td>
</tr>
<tr>
<td>All-around facilities and services</td>
<td>19.0</td>
<td>35.5</td>
<td>31.6</td>
<td>31.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77.7</strong></td>
<td><strong>72.9</strong></td>
<td><strong>91.1</strong></td>
<td><strong>78.9</strong></td>
</tr>
<tr>
<td><strong>Rapid transportation access</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 metro line</td>
<td>1.6</td>
<td>4.5</td>
<td>1.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Highways</td>
<td>0.0</td>
<td>1.3</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1.6</strong></td>
<td><strong>5.8</strong></td>
<td><strong>1.3</strong></td>
<td><strong>3.7</strong></td>
</tr>
<tr>
<td><strong>Job opportunities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cheap rent/housing prices</strong></td>
<td>4.8</td>
<td>3.2</td>
<td>1.3</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>High-quality estate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distinctive building style</td>
<td>1.6</td>
<td>1.9</td>
<td>0.0</td>
<td>1.3</td>
</tr>
<tr>
<td>A good internal layout</td>
<td>0.0</td>
<td>0.6</td>
<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Good privacy</td>
<td>3.2</td>
<td>3.2</td>
<td>3.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Well-known company</td>
<td>4.8</td>
<td>3.9</td>
<td>0.0</td>
<td>3.0</td>
</tr>
<tr>
<td>A good investment</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Neighbours with high status</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9.6</strong></td>
<td><strong>9.6</strong></td>
<td><strong>6.3</strong></td>
<td><strong>8.7</strong></td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>3.2</td>
<td>4.5</td>
<td>0.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

(P=0.002 < 0.05 indicates a positive relationship between hukou location and the corresponding pull factor)

Through the above analysis, locals who claimed that they moved to Jiangning because of involuntary factors make up the largest group of homebuyers. Locals and those
from Nanjing are more consumption-oriented. The findings reveal the important role of housing consumption in dominating suburban growth. Even households from Nanjing expressed their aspirations to purchase a home in the suburbs due to life-related factors. “Lower prices allow people to live in a larger and higher quality living environment; there is no reason to continue living in the urban centre. We all know there is still a lot of potential to raise home prices, and there is no place where a house can be invested but can also be used for living” (Interview, R_M3). Another group, migrants, are less likely to be attracted by consumption-oriented factors. Instead, life-related factors (i.e. involuntary moves by changing one’s place of employment) and work-related factors influence them to move. The survey shows that 25% of all migrants reported that their reason for moving was driven by job opportunities or proximity to their workplace. Meanwhile, 23% of moves among this group are due to changing workplace. Overall, this accounts for a far greater proportion than for the locals and central Nanjingese.

In China, homeownership is an important factor in determining whether a young migrant can settle down in a new environment. It also reflects the enthusiasm of young Chinese migrants to own homes in large cities. “The purpose of working hard is to be able to afford a home. All happiness cannot compare with a property ownership certificate” (Interview, R_L1). Thus, migrants are more concerned about use value when making residential choices. “Today there are too many rich people. I witness increasing house prices every day. You will never be able to create a better future for your children if you miss the chance to own a home” (Interview, R_L4). “Although here we are far away from the city and traffic is not convenient, at least I have a house of my own and my child will be able to access the local school in the future” (Interview, R_L1). Meanwhile a fair number of migrant people insist to settle down in the suburbs, indicating the low rental costs significant. “Living quality and the environment are not valuable, because I can decide to return to my hometown after earning some money and working” (Interview, R_D3). “I have rental subsidies and every penny is worth a lot to me” (Interview, R_L3). Therefore, cheap rent in Jiangning is a basic guarantee that local companies can draw a large number of migrant labourers.
More than 55% of people move to the suburbs because of cheaper housing and rent. For all three groups, living in Jiangning is largely a trade-off between housing prices and long commutes, rather than establishing a lifestyle. Compared with western suburbanisation, which is promoted by heavy investment in highways and the widespread use of automobiles, in the case of Nanjing, mass transit has reduced commuting costs and time. The expansion of the No. 6 metro line, which links to the central area, is important for massive land development. More importantly, large real estate developments, especially apartments, are planned around metro stations to draw young families further from the city. This not only reflects a distinctive central strategy in promoting decentralisation but also shows that different political regimes have influenced the development of diversified suburban forms.

When living under authoritarian capitalism, ordinary people have to fight to improve their lives and welfare, and rapidly increasing housing prices force them to reluctantly leave the centre. On the one hand, tremendous urban regeneration raises the value of urban land resources; on the other hand, it involves a process of demolishing old urban forms to create a new urban environment in the context of intensive urban competitiveness. However, for these three groups of people, living in the suburbs seems worth the compromise to enjoy both cheap housing and a contemporary setting. Many homebuyers expressed their frustration about living far from the city. “I don’t believe that ordinary people with transparent incomes can afford a house in the city” (Interview, R_M4). Furthermore, “there are few new residential development projects in the city because too many investment costs have resulted in prices far beyond homebuyers’ reach” (Interview, E1).

6.4.4 Results: A model of residential moves and types of housing choices

Driven by different motives that cut across a range of socio-economic attributes, do suburban residents self-select into particular neighbourhoods and make up a heterogeneous spatial pattern? Table 6.6 shows the distribution of samples among different groups and the housing types they chose. A chi-square test reveals that the spatial concentrations of the three groups are statistically significant. Compared with
the other two groups, those from central Nanjing are more likely to live in villas. The outcomes of the logistic regression analysis suggest that when the effects of other variables are considered, age, educational attainment, housing tenure, and pull factors are the four variables with the most significant impact on which group a household falls under. After controlling for these attributes, both motivation-related and spatial-related variables are significant, indicating unique relationships between the household’s place of origin and the factors leading to its residential moves and the types of housing it lives in.

Table 6.6 Descriptive statistics of the variables of the three groups in Jiangning

(results of logistic regression analysis; outcome variable=place of origin: Local, Nanjingese, Other place)

<table>
<thead>
<tr>
<th>Effect</th>
<th>Model Fitting Criteria</th>
<th>Likelihood Ratio Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-2 Log Likelihood of Reduced Model</td>
<td>Chi-square</td>
</tr>
<tr>
<td>Constant</td>
<td>330.267</td>
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</tr>
<tr>
<td>Age</td>
<td>358.268</td>
<td>28.001***</td>
</tr>
<tr>
<td>Marital status</td>
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<td>8.200</td>
</tr>
<tr>
<td>Educational attainment</td>
<td>341.271</td>
<td>11.004*</td>
</tr>
<tr>
<td>Hukou classification</td>
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<td>31.031***</td>
</tr>
<tr>
<td>Employer type</td>
<td>334.681</td>
<td>4.414</td>
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<tr>
<td>Monthly family income</td>
<td>334.705</td>
<td>4.438</td>
</tr>
<tr>
<td>Housing tenure</td>
<td>373.889</td>
<td>43.623***</td>
</tr>
<tr>
<td>Push factors</td>
<td>336.758</td>
<td>6.491</td>
</tr>
<tr>
<td>Pull factors</td>
<td>379.982</td>
<td>49.715**</td>
</tr>
<tr>
<td>Housing type</td>
<td>330.419</td>
<td>0.152</td>
</tr>
</tbody>
</table>
Table 6.7 Results of logistic regression analysis: A comparison of the social profiles of the three groups in Jiangning

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Jiangning versus Other place $^a$</th>
<th>Nanjing versus Other place $^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>0.623</td>
<td>0.415</td>
</tr>
<tr>
<td>Marital status (single =1)</td>
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<td></td>
</tr>
<tr>
<td>Married</td>
<td>-0.239</td>
<td>0.906</td>
</tr>
<tr>
<td>Divorced</td>
<td>-1.188</td>
<td>8.066</td>
</tr>
<tr>
<td>Educational attainment (Reference: Tertiary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>0.345</td>
<td>1.289</td>
</tr>
<tr>
<td>Secondary</td>
<td>-0.064</td>
<td>0.888</td>
</tr>
<tr>
<td>Hukou classification (Non-agricultural=1)</td>
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<td>0.584</td>
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<tr>
<td>Employer type (Reference: Other)</td>
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<td></td>
</tr>
<tr>
<td>Government/Public sector</td>
<td>-0.073</td>
<td>1.011</td>
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<tr>
<td>SOE/COE</td>
<td>0.547</td>
<td>0.851</td>
</tr>
<tr>
<td>Private business owner</td>
<td>2.129*</td>
<td>0.964</td>
</tr>
<tr>
<td>Private/Foreign/Joint venture enterprise</td>
<td>0.099</td>
<td>0.825</td>
</tr>
<tr>
<td>Monthly family income (Baseline: &gt; 20,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5000</td>
<td>6.615**</td>
<td>2.510</td>
</tr>
<tr>
<td>5000-10,000</td>
<td>0.848</td>
<td>0.824</td>
</tr>
<tr>
<td>10,000-20,000</td>
<td>0.394</td>
<td>0.672</td>
</tr>
<tr>
<td>Housing tenure (own=1)</td>
<td>6.137***</td>
<td>1.434</td>
</tr>
<tr>
<td>Car ownership (own=1)</td>
<td>1.169</td>
<td>0.627</td>
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<tr>
<td>Housing type (villa=1)</td>
<td>-0.834</td>
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</tr>
<tr>
<td>Push factors (Reference: Housing consumption-related reasons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life-related reasons</td>
<td>-0.657</td>
<td>0.643</td>
</tr>
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</table>
### Other voluntary reasons

<table>
<thead>
<tr>
<th></th>
<th>16.566</th>
<th>13604.907</th>
<th>15644003.427</th>
<th>16.166</th>
<th>13604.907</th>
<th>2.867</th>
</tr>
</thead>
</table>
### Involuntary mobility

|                | -0.210 | 0.425     | 0.810        | 0.713  | 0.495     | 2.041 |

### Pull factors

**A good environment**

|                | 0.308  | 0.277     | 1.361        | 0.485  | 0.304     | 1.624 |

**Rapid transportation access**

|                | -0.530 | 0.608     | 0.589        | -0.916 | 0.653     | 0.400 |

**Job opportunities**

|                | -1.269 | 0.946     | 0.281        | -1.701 | 0.994     | 0.182 |

**Cheap housing/rental prices**

|                | 1.318* | 0.626     | 3.735        | 1.062  | 0.690     | 2.893 |

**High quality estates**

|                | 0.301  | 0.145     | 1.458        | 1.256* | 0.879     | 1.356 |

**Constant**

|                | -14.285** | 4.517     | -12.963**    | 4.647  |

### Model statistics

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>N</td>
<td>300</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$x^2$</td>
<td>145.121</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>DF</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Sig.</td>
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<td>-2 log likelihood</td>
<td>267.232</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Cox &amp; Snell $R^2$</td>
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<td></td>
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</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>0.587</td>
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<td></td>
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</tbody>
</table>

**Note:** a. The outcome variable is the place of origin, and the group of migrants from other places is selected as a reference.

*p<0.05; **p<0.01; ***p<0.001
Table 6.7 details each variable’s specific effects on different groups.

\[
\ln \left( \frac{p_1}{p_3} \right) = -14.285 + 0.623x_1 - 0.239x_2 -1.188x_3 + 0.04x_4 + 1.181x_5 + 0.947x_6 + 17.46x_7 + 1.329x_8 \\
-0.073x_9 + 0.547x_{10} + 2.129x_{11} + 0.099x_{12} + 6.615x_{13} + 0.848x_{14} + 0.394x_{15} + 6.137x_{16} + 1.169x_{17} \\
-0.834x_{18} - 0.657x_{19} + 16.566x_{20} - 0.21x_{21} + 0.308x_{22} - 0.53x_{23} - 1.269x_{24} + 1.318x_{25} - 0.164x_{26}
\]

\[
\ln \left( \frac{p_2}{p_3} \right) = -12.963 + 0.106x_1 - 0.194x_2 - 14.474x_3 + 0.751x_4 + 1.116x_5 + 2.462x_6 + 19.7x_7 + 2.094x_8 \\
-0.053x_9 + 1.482x_{10} + 2.042x_{11} + 0.459x_{12} - 12.659x_{13} + 0.207x_{14} + 0.412x_{15} + 4.679x_{16} + 1.264x_{17} \\
-1.388x_{18} - 1.06x_{19} + 16.166x_{20} + 0.713x_{21} + 0.485x_{22} - 0.916x_{23} - 1.701x_{24} + 1.062x_{25} - 0.139x_{26}
\]

P1 represents the probability of taking place in the group of Jiangning hukou classification; P2 is the probability of taking place in the group of Nanjingne; and P3 indicates the probability of taking place in the migrant group. The actual meaning of the coefficients represents an advantage ratio. After controlling for other variables, this variable has advantages over the reference factor in P1 (P2) and P3.

In terms of socio-economic attributes, the three groups are statistically different in terms of age, marital status, and educational attainment. Compared to migrants, both locals and those from Nanjing are older. Furthermore, \( \exp(B) \) indicates that locals are generally older than Nanjingese. Both variables (\( \chi_2 \) and \( \chi_3 \)) are negative, the coefficient of \( \chi_3 \) is less than \( \chi_2 \), and the coefficient of the second model is less than that of first model, suggesting that locals and Nanjingese versus other place prefer single-family homes, while migrants show a high percentage of divorce. Furthermore, the single proportion of locals is higher than the group from Nanjing versus Other place. The relatively high age and single rate imply that the amount of compensation homes owned by the locals is large because the number of compensation homes is owned by hukou-registered residents. For example, the locals are more likely to stay single for obtaining housing compensation from land expropriation.

In terms of educational attainment, the signs of the coefficients in two models (\( \chi_4 \) to \( \chi_7 \)) suggest an increasing trend that is positive, indicating that the group with high
educational attainment is more likely to live in Jiangning. The group from Nanjing versus other place is likely to acquire a tertiary education or higher than secondary education. However, compared to migrants, the locals are more likely to have the lowest family incomes among three groups; this finding may refer to the earlier analysis whereby the majority of families with the lowest family incomes are single. In terms of employer type, the group from Nanjing versus other place and locals are more likely to work in state-owned enterprises. The locals are more likely to be private owners of companies, while employees in private sectors comprise the group Nanjing versus Other place.

This finding confirms that among locals who bought new commodity homes, a large number used to be farmers. Although they have recently become urban residents, they do not have the advantage in the labour market of non-agricultural sectors; thus, operating small businesses and online stores are their main sources of employment. In contrast, migrant workers with a secondary education make up the main labour force for industrial production, and their incomes are not necessarily low. In addition, compared with the locals, Nanjingese who own cars constitute a larger proportion. This finding also shows that the group from Nanjing versus other place has a better income status and is more likely to use cars than the locals.

Regarding push factors, the three groups are not significantly different from each other in terms of comparing housing consumption-related reasons to life-related reasons for their recent residential moves. However, the signs of the coefficients imply that migrants have more life-related reasons, showing less concern for housing consumption than the other groups. Residents from Nanjing are more concerned about improving their living spaces, which indicates the likelihood of those from Nanjing actively moving in search of better living conditions. At the same time, the likelihood of involuntarily movement is higher in the group of people from Nanjing versus Other area, showing passively displaced motives, which is significantly greater than that of migrants and locals.

In terms of housing tenure, homeowners are mostly concentrated in the group of Nanjing versus other place, while house renters are mostly locals and migrants. This
finding confirms that relocated housing or compensation homes are still under construction through rapid urbanisation in Jiangning. The locals have to rent while waiting for their new homes to be built. With regard to what attracted residents to move to their present location, there are no significant differences among the locals and people from Nanjing. Nevertheless, when compared to migrants, they are less likely to be drawn by work-related factors than the quality of the estates. Locals living in Jiangning are more likely driven by cheap housing, rather than the quality of the estate. However, compared to migrants and the locals, residents from Nanjing are more concerned about the quality of the estate. This suggests that housing quality plays a significant role in pushing urban residents to choose their home for a housing upgrade, while this factor is less important to migrants and the locals.

6.4.5 Results: The likelihood of living in villas versus apartments

In order to analyse the preferential impacts of choosing different suburban housing types, this section clarifies two categories of housing forms based on MOHURD in dividing diverse residential developments (see Section 6.3.1). Villa-style housing features a completely private front and backyard with less than three floors. Apartment housing refers low-rise, mid-rise, and high-rise living forms, featuring a shared lobby and entrance. Therefore, this section uses “villa” and “apartment” to define existing suburban residential forms in Jiangning in order to analyse the likelihood of housing preferences. Moreover, this chapter contrasts the preferences with each other in terms of both spatial form and social group. Data were collected and identified from 300 face-to-face questionnaires. The sampling method is explained in Chapter 3. The locations of community containing apartments or villa-style housing type were recorded when questionnaires were randomly sampled, as shown in the Figure 6.1
Figure 6.1 The sampled locations of villa-style housing and apartment housing in Jiangning

(Note: the black dots represent the residential cluster which contain apartment housing; the grey dots represent the residential cluster which contain villa-style housing)

A logistic regression model of the likelihood of living in villas compared to apartments confirms significant differences between the two (see Table 6.8). The results indicated that households living in villas are older, more established, and more likely to be high-income earners. Compared to single respondents, married households are more likely to choose villas. Households living in villas are more likely to have master degree or above, regardless of educational attainment. Moreover, compared to households that own private cars, respondents without them are more likely to live in apartments. When it comes to originality, a similar conclusion is reached; that is, people from Nanjing are more likely than locals to live in villas. However, the chances of the locals and migrants living in a villa are not significantly different. In terms of employment type, households that work for the government and state-owned enterprises are more likely to live in villas, rather than households that work for private companies. These results indicate that the family who live in villas, apart from their wealth and high education, are hard to identify from a socio-demographic perspective. It also confirmed the fact that owning a villa in Chinese society is a manifestation of being a wealthy family. At the same
time, villa type housing has become a rare resource of suburban housing type, owned by few people.

When it comes to the driving forces behind why households choose to live in villas or apartments, the findings are distinctive. Those who live in apartments have more life-related reasons, while those living in villas have other reasons, such as improving their living quality and employment benefits. Thus, people who choose suburban apartments are more likely to care about a good environment and rapid transportation access. Overall, these results indicate that people living in villas are difficult to identify in terms of distinctive socio-demographics, except for their wealth. According to interviews with some staff members on residential committees and the homeowner associations of some gated villa sub-divisions, there are generally four types of residents: (1) rich businesspeople from cities and surrounding provinces (such as Anhui and Jiangsu); (2) local entrepreneurs who run factories or conduct business in Jiangning; (3) senior government officers; and (4) elderly people who live with their children and take care of the next generation. By all accounts, access to single-family houses in China remains restricted to a few privileged upper-class families, rather than better-off waged families.

Table 6.8 The likelihood of living in a villa

(Logistic regression results; y=1 if the household is living in a villa)

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>B</th>
<th>SE</th>
<th>Exp (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.562*</td>
<td>0.064</td>
<td>1.755</td>
</tr>
<tr>
<td>Marital status (single=1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>2.035</td>
<td>6.312</td>
<td>7.650</td>
</tr>
<tr>
<td>Divorced</td>
<td>-16.157</td>
<td>0.000</td>
<td>9.617E-08</td>
</tr>
<tr>
<td>Educational attainment (Reference: Tertiary)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>1.693</td>
<td>1.279</td>
<td>5.436</td>
</tr>
<tr>
<td>Diploma</td>
<td>-2.380</td>
<td>1.354</td>
<td>0.093</td>
</tr>
<tr>
<td>Master</td>
<td>2.922*</td>
<td>1.730</td>
<td>0.054</td>
</tr>
<tr>
<td>PhD</td>
<td>4.930**</td>
<td>2.247</td>
<td>138.393</td>
</tr>
<tr>
<td>Hukou classification (Non-agricultural=1)</td>
<td>-1.292</td>
<td>0.883</td>
<td>0.275</td>
</tr>
<tr>
<td>Originality (Reference: Migrants)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jiangning</td>
<td>1.049</td>
<td>1.188</td>
<td>2.856</td>
</tr>
<tr>
<td>Nanjing</td>
<td>0.697</td>
<td>1.427</td>
<td>2.007</td>
</tr>
<tr>
<td>Employment type (Reference: Others)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government/Public sector</td>
<td>2.833</td>
<td>1.738</td>
<td>16.993</td>
</tr>
<tr>
<td>SOE/COE</td>
<td>2.910*</td>
<td>1.483</td>
<td>18.359</td>
</tr>
</tbody>
</table>
Another noteworthy commonality of families in villas compared to those living in apartments is that they are more consumption-oriented. Although the variable of push factors is not significant after controlling for other variables, the model indicates that the odds ratio of moves motivated by housing consumption-related factors is high. An analysis of the pull factors also supports this point, implying that the quality of the estates is the most important attraction for these families. Moreover, compared to the majority, they are much less concerned with housing prices. The survey shows that among all respondents in villas, about 65% of households have more than one home in Nanjing. This is statistically different from families in apartments, of whom only about 19.5% have another house. Therefore, villas seem less likely to merely serve as shelters for residents. Single-family homes satisfy their need for space and comfort. Some moved to villas out of a desire for an Arcadian lifestyle. “Living in a dense apartment is not the lifestyle I’ve had since retiring. I’d prefer to plant vegetables and
flowers in a garden of my own, and travel abroad during the holidays. When you're used to living in a big house, living in an apartment can be very uncomfortable" (Interview, R_M2).

The model also suggests that compared to others, families in villas are statistically more concerned with their own neighbourhoods than surrounding environments and public facilities. This result reflects that, to a large extent, villa communities are like enclaves in socially mixed suburbs. The survey reveals that residents in villas have few local connections and seldom use local public facilities. Moreover, compared to people in apartments, the frequency of their non-work trips to the central district is statically high. While only 25% of families in apartments stated that they went to the urban centre at least once a week, the proportion for families in villas is 75.5%. This indicates that they continue to enjoy their lives in the city. Meanwhile, complaints about the lack of an urban atmosphere and high-quality commercial facilities were common.

Villa communities are highly homogeneous inside the gate. Compared to families in apartments, residents in villas care much more about whom their neighbours are. In the survey, no respondents in villas reported that high-quality neighbours are one of the primary reasons they chose their current houses; this fact is the same for families who live in apartments. This indicates that moving to the suburbs has an irrelevant connection to a sense of community and neighbourhood interactions. Furthermore, about 38% of respondents in villas mentioned that good privacy was one of the foremost reasons they chose their current homes. Meanwhile, 32% of residents in apartments mentioned this as well. This outcome verified the transformation of traditional neighbourhood relationships along with increased income. The pursuit of privacy and exclusivity is becoming apparent in their concerns. For example, 35% of respondents in apartments ranked access control as the most important property management service, while the proportion for villa respondents was about 56.4%.

The findings suggest that the residential spatial pattern in Jiangning is distinct from that of the urban area, showing a scattered distribution. The core area is comprised of a natural landscape instead of commercial facilities in the urban zone. Housing prices and conditions generally decrease from the core to the outer ring, implying that the
major social status of suburban residents is middle-class and high-income. However, as industrialisation and urbanisation are almost in the same process along with suburban residential growth, replacement housing settlements and rural enclaves are concentrated in the suburbs as well, showing a diverse residential pattern.

Generally, evidence indicates that suburbanisation in Jiangning is driven by industrialisation and massive land development, involving living conditions that change and modern infrastructure. Additionally, the driving forces play a dominant role in interventions and specific social structure, which are much broader than theoretical settings. The growth of social class formation determines diversified demands in living and housing, leading to residential differentiation. Thus, the rising demands of the subdivision of housing types are emerging along with social class formation, which followed by equally economic capacities in the same neighbourhoods. As argued before, there is no suburban residential pattern in the American-European sense, and there is no suburb as a distinctive category in the Chinese sense. This is also demonstrated by a concentration of spatial clusters of low-density housing typologies and a high-density urban landscape such as high rise condominiums, multi-storey buildings, and mega-complexes, which appears physically similar to the urban form.

6.4.6 Spatial differentiation: The likelihood of living in suburban new and old towns

To better understand the differences between the three districts: Muling, Dongshan and Lukou. Logistic regression analysis was carried out using the sub-district as the outcome variable. Distinct features emerged when comparing these three areas, which resulted from diversified suburban residents and the demands of suburban development. The findings confirm that better-off residents live in Muling. On the one hand, the regression model indicates that Muling’s residents have a statically greater chance of coming from urban areas; on the other hand, the regression model suggests that Muling’s residents are older, which is significant when compared to Lukou. The model implies that Muling’s residents are more likely to have a higher educational level, giving them a greater chance of working for state-owned enterprises and services.
sectors in the city. Moreover, families in Muling are more likely to have middle and high incomes, which further verifies their social class. Their reasons for moving are more likely to due to their housing needs than by rapid transportation access and job opportunities. Cheap housing with high-quality estates are the most important factors that have made both elderly and young middle-class people choose to live in the suburbs. For young middle-class families, Muling is full of cheap, high-quality housing. For the elderly, their reasons for moving are more likely to be the demand for large-scale homes with a good environment and facilities. A local resident confirmed the findings:

In 2003, the housing price for a villa here was about 1 million Yuan, which was affordable to achieve the dream of owning a villa. As villas were rare in the city and extremely expensive, buying a villa in Jiangning was a better option to meet the need for both a spacious home and a natural environment (Interview, R_M1).

Another young resident commented that, “Although jobs are in the city, for which it usually takes about 40 minutes to commute between the city and one’s home, living in urban areas can take a long time because of traffic. Thus, Jiangning’s better-quality housing conditions have attracted young families” (Interview, R_L4). Hence, compared with Muling, the findings verify that due to compromise featuring commuting distance and housing price. The residents in Lukou and Dongshan are about thirty-seven and about five times more likely to have been mainly drawn by cheap housing/rent, respectively.

It is more appropriate to characterise Dongshan’s residents as local families, rather than migrants; this is particularly significant when compared to Lukou. The findings reveal that they are statically 2.13 times less likely than Lukou residents to be employed by the public sector. As a result, the income level of families in Dongshan is relatively low. Despite this, the outcomes confirmed that local families are more likely than other groups to own property. According to the interviewees, “local families and their housing supplies support Dongshan’s housing market” (Interview, R_D4), which demonstrates the former relocating experiences of creating nouveau rich, rather than their wealth coming from jobs. Thus, locals have a greater chance of being landlords
in the local housing rental market. More specifically, locals constitute the most important customer group of the housing market. Locals suggested that Dongshan is self-contained; this is where they were born and raised (Interview, R_D2). Hence, when compared to housing consumption-related factors, the residential mobility of locals is more likely to be propelled by the voluntary factor of remaining in a familiar community environment, as well as life-related reasons. This contrasts with the situation in the other districts. In terms of pull factors, the effects of rapid transportation access to the centre, job opportunities, and cheap housing prices do not appear as important for residents in Dongshan. Meanwhile, residents in Muling and Lukou value these factors.

Lukou residents have a greater chance of being young and single migrants; this is particularly significant when compared to Dongshan. However, they are more likely to be employed in the private sector. Although the income level of people in Lukou is significantly higher than that of Dongshan, the reasons for moving differ from those of people in Dongshan and Muling. As Lukou is a place with industrial parks and logistics sectors, correspondingly, their residential move to the suburbs is more likely driven by job opportunities, rather than housing needs. People’s jobs usually provide them with housing, which means that cheap rent is the most important factor that made them choose their homes. Rapid transportation access and a good environment are not their primary considerations. For example, compared to residents in Muling and Dongshan, residents in Lukou are about twelve times and four times more likely to have moved to their homes because of job opportunities. They are also about five times and eight times more likely to have been mainly attracted by cheap housing/rent, respectively.
Table 6.9 Differentiation of three sub-districts

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Muling versus Dongshan a</th>
<th>Lukou versus Dongshan a</th>
<th>Lukou versus Muling b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>Exp (B)</td>
</tr>
<tr>
<td>Age</td>
<td>0.32</td>
<td>0.27</td>
<td>1.064</td>
</tr>
<tr>
<td>Marital status (single =1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>-1.239*</td>
<td>0.826</td>
<td>0.388</td>
</tr>
<tr>
<td>Divorced</td>
<td>0.288</td>
<td>3.066</td>
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**Model statistics**

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6.5 Conclusion

This chapter examined the demand-based forces driving Jiangning’s residential development, which is propelled by three dimensions. Firstly, population growth and the booming housing market: Government-led industrial restructuring creates diverse employment conditions to provide a large number of jobs for different people, including state-owned, private, and foreign sectors. Meanwhile, Jiangning has become a destination for migrants. Secondly, the district’s growth indicates housing demand for better living conditions, which means that enhanced living environments attracted affluent families to the suburbs. Thirdly, the district’s growth occurred via the massive conversion of agricultural land into urban use. Rural-urban migration happened through tremendous suburban land development. After losing agricultural land, locals were forced to move to urban settlements and work in non-agricultural jobs.

In addition to government-led expansion, large amounts of capital invested by the private sector played a critical role in driving the prosperity of residential growth. The expansion of the suburban housing market is strongly associated with low-risk investments and quick financial returns. The wealthy class sees suburban housing as an important means of capital appreciation. Investing in suburban housing is an affordable way to improve living conditions and change one’s social class. Low-income inhabitants eventually gain the chance to become landlords in the city by purchasing property in Jiangning.

Besides the social classes and their diverse demands, Jiangning’s residents consist of three major groups: the locals, migrants from other places, and residents from Nanjing. According to the survey results, after controlling for the contribution of different factors, the three groups not only differ in terms of some socio-economic attributes but also in their motives and residential preferences. Migrants are fundamentally different from the other two groups. They are more likely to be young and married. Furthermore, migrants are statistically different from locals and residents from Nanjing in terms of age and marital status, showing that both locals and residents from Nanjing are older than migrants, and have a high percentage of single individuals.
Even though locals and residents from Nanjing present similar attributes in many respects, locals comprise the largest group of inhabitants with less education and lower income levels. The findings also reflect the impact of land policy on residents’ social status, which they regard along with marriage status and hukou registration. Hence, residents with local hukou are more likely to maintain a single status in order to receive better compensation from further housing relocation. Educational attainment also had an impact the likelihood of living in the suburbs. The outcome indicated that except for locals, residents with higher educational attainment are more likely to live in the suburbs. This is because locals that bought new commodity homes are former farmers and have the lowest educational levels. Migrants dominate the labour market of industrial production in the suburbs, yet although their educational level is low, their income level is relatively high.

After analysing the three groups’ reasons for moving, the findings indicate that massive state-led land development results in locals giving up their previous homes and land, followed by the use of huge housing and cash compensation to improve their living conditions. When it comes to housing consumption, locals and a fair number of urban residents from Nanjing show a similar reason for relocating: moving involuntarily. In terms of voluntary reasons for moving, locals and residents from Nanjing are attracted to Jiangning’s good environment. Regarding voluntary moves, locals make up the largest group. This finding demonstrates the important role of housing consumption, which dominates suburban growth. Locals and those from Nanjing are more consumption-oriented. On the contrary, migrants are less likely to be drawn by consumption-oriented factors; instead, life-related factors which is referring to involuntary moves, such as changing one’s job and work-related factors influence them to relocate. Finally, more than half of Jiangning’s residents move to the suburbs because of cheap housing and rental prices, rather than to establish a lifestyle. The results also indicate that migrants’ reasons for moving are more life-related, showing less concern about housing consumption than locals and residents from Nanjing. Homeowners are more likely to be from Nanjing’s urban area, and tenants are more likely to be migrants. This is because when comparing migrants with the other two groups, they are more likely to be drawn by work-related factors. Locals are more likely to be attracted by housing prices, while housing quality draws residents from Nanjing.
In spatial terms, different driving forces of growth have resulted in a heterogeneous suburban space. This is realised through the self-sorting of different types of households into certain kinds of neighbourhoods. The findings suggest that after controlling for different attributes, both motivation-related and spatial-related variables are significant, demonstrating the impact of a household’s place of origin on housing choice. Villa-style households are older, more established, and more likely to have high-income earners. Compared with the other two groups, residents from Nanjing are more likely to live in villas; this confirms that unlike western suburbia, a few extremely rich families, rather than the masses, live in them. Those working for the government and state-owned enterprises are more likely to own more assets than working for private companies. To return to the question of whether preferences favouring a distinctive suburban lifestyle play a role in Jiangning’s growth, the answer is confirmed. Villa-style settlements show similar features with western suburbs, such as living quality, exclusive services, safety, and security, as well as neighbourhood homogeneity and symbolic status. Villa households’ preferences are driven by the high quality of life. Their settlements are like an enclave in the socially mixed suburbs, as they have few local connections and seldom use local facilities. On the contrary, residents who move into suburban apartments are drawn by the good environment and rapid transportation access, as households still maintain strong job connections to the city.

The findings revealed that different types of households move into certain kinds of neighbourhoods and districts, forming heterogeneous residential growth. Those from Nanjing live in closer suburbs, which include Muling. Locals and migrants tend to stay in the old suburbs in Dongshan and Lukou. The three districts are developing with distinctive features. Muling is a typical urbanised district designed for high-income residents with jobs in the central city. Dongshan maintains an old township landscape inhabited by locals with informal jobs and lower incomes. Lukou is a well-planned suburban new town. Featuring a low-density landscape and industrial sectors, it has attracted migrant families. Although suburban residents have formed distinctive features among the three districts, the pull forces of local growth still play a dominant role in people’s reasons for moving. An urban living form still prevails regarding the growth of the suburban lifestyle.
To a large extent, the distinctive suburban residential development in Jiangning corresponds to the process of rural-urban integration. Along with rising consumption, the emerging urban rich and new middle class have become major investors in the suburban housing market. Purchasing a new home in the suburbs does not merely mean choosing a lifestyle but also a better place to live. To these households, the imagined suburban lifestyle refers to the establishment of their own social distinction. The aesthetics of suburban, gated communities, with strong branding and packaging practices, materialised their sense of desirability (Wu 2004). The unique suburban landscape offers a private location for the nouveau rich to realise their aspirations through spatial exclusion and lifestyle practices (Zhang 2012). Seeing the rise of suburban property values, purchasing a second home in the suburbs is an efficient, stable investment method of increasing personal wealth. The suburban housing market has become an object of speculation.

Returning to the question of whether the transformation of residential preferences influenced the dynamic of Jiangning’s social residential pattern, the answer is not black and white because heterogeneous social groups and diverse housing demands are concentrated in the Chinese suburbs. Villa-style housing and these households have developed similar features to those of western suburbia including living environments, preferences for housing styles, private and exclusive services, the demands of safety and security, and neighbourhood homogeneity. Villa residents are more consumption-oriented in terms of their reasons for moving, demonstrating a distinctive lifestyle. While their consumption demands still rely deeply on the facilities provided by the city, the residential pattern of villa-style housing still maintains elements of an urban landscape. In the meantime, suburban apartments are widely distributed in Jiangning, which offers a huge housing supply for growing middle-class families. Choosing an apartment is not significantly related to residential preferences but rather results more from affordability, employment factors, and an improved living environment. Given the factors of relatively convenient commuting and lower living costs, mid- and high-rise gated apartments in Muling and Dongshan created homogeneous residential preferences and demands. The suburbs in China represent areas of industrial development and enclaves of rural-urban transformation, attracting high-skilled
migrants to settle down. Therefore, it is inappropriate to claim that residential preferences influence the transformation of residential patterns in China, as suburbs are still seen as growth poles for urbanisation and economic activities.
Chapter Seven: Conclusion

7.1 Introduction

This research aims to explore the heterogeneous types of suburban residential developments in China and the motivating factors in residential relocation. Furthermore, it explores the link between the land development process and dynamics and also provides an empirical case for enriching suburban studies. It is commonly believed that the current form of suburbanisation in China is created by rapid land use transformation and spatial reconfiguration following the establishment of a land market.

China’s urbanisation has developed into a new stage, and the suburbs have begun to become a new frontier of economic growth. Major cities are witnessing the first expansion of suburban areas in diverse forms of residential development. Some scholars have captured the concepts of polycentric and post-suburbia to describe the emerging suburban phenomena in China (Feng and Zhou 2005, Yue et al. 2010, Wu and Phelps 2011). Few studies comprehensively explain the phenomenon and focus on the dynamics changes in residential factors in China’s suburbanisation. This study attempts to analyse the patterns of suburban residential area in China and how these patterns are formed through Chinese suburbanisation. By using Nanjing as a case study, the findings show that China’s suburbanisation has distinctive characteristics, which refer to their social and institutional context.

The study aims to enrich the current suburban theory for the suburban residential development and provides valuable empirical Chinese examples. Previous study on China’s suburbanisation indicates that “the circumstances under which urban decentralisation and suburbanisation have occurred in the west and China and the ensuing economic and spatial consequences have been vastly different…the forces of urban change…are unique to the transitional economy of China” (Zhou and Ma 2000, 228-229). Furthermore, “post-suburban growth in China…have originated from the strategic restructuring of a municipal region and its governance…this is
significantly different from the pro-growth local politics in the US…and even from the post-socialist growth machine of Central and Eastern European nations” (Wu and Phelps 2011, 427). These arguments still apply to the comparison of the dynamics of suburban development in contemporary China and the West. In particular, it has an important influence on the forms of suburban housing and residential preferences. Therefore, this study elaborates on the process, forms, and mechanisms of suburbanisation. The empirical findings indicate that the distinction refers to socio-economic and institutional contexts. The framework accounts for factors based on both urbanisation and industrialisation, and sets up the platforms of economic status and the institutional environment to analyse the research gap on spatial forms and heterogeneous growth in Chinese suburban residences. In terms of institutional system, the central government of China is still improving urbanisation by building suburban new settlements. In terms of economic system, the economic growth is still largely based on export-oriented manufacturing and land-centred economies. Socially, housing consumption and high-end suburban housing can only be enjoyed by a small number of urban wealthy because the middle class is relatively weak. At the same time, these cities are facing influx of rural-urban migrants, thereby the suburbs have become a buffer zone of China’s urbanisation process. The study attempts to explore the similarities and differences between China and other countries. The foundation for the analysis is that the diversity of suburban residences’ spatial forms varies according to market demand, residential preferences, and consumption. The roles of the state and market were mapped along with the residential typology. The governance of these estates continues to reflect how they were initially built, leading to the quite different suburban worlds.

The research attempts to answer what are the patterns of suburban residential areas in China, and how do these types form through Chinese suburbanisation? Referring to existing literature of other places, the study argues that the state-led and private-led formal residential development dominates the suburban housing typologies, meanwhile, the residential forms and residential compositions are more diverse than what traditionally imagined. Residential preferences and housing demands diversified the formations of suburban housing and relevant spatial components. In the meantime,
heterogeneity benefits the government intention to fulfil various demands by transforming rural land into urban land use.

In terms of methodology, the study builds its findings on a case study of Nanjing and its suburban district, Jiangning. As a representative of China’s large cities and one of first cities to develop industrial parks, the case represents the state-led suburbanisation in China, demonstrating a process of transforming monotonic industrial pattern to a diverse functions of suburban spaces. Based on this context, A mixed method combining qualitative and quantitative analysis is applied. The data is materials come from 40 interviews and 300 questionnaires. Second hand data and materials come from several channels, including internal governmental reports, planning and design documents, media reports and publications. By studying and analysing the materials and data, the study further explores the involvement of reasons for moving, residents’ social status, and personal preferences to explain the heterogeneous suburban residential landscape. Furthermore, the local institutional environment and decision-makers give rise to a strong influence on suburban patterns and social class formation. By researching suburban growth in the context of entrepreneurial governance, this study confirmed that urban planning also additionally plays a significant role in realising the distinctive suburban pattern with theoretical generalisation. The significance refers to urban-rural integration, urbanisation and capitalisation. However, the involvement of modalities and mechanisms of suburban governance broadens the implications for China’s suburban research in both theoretical and practical terms.

7.2 The dynamics of suburban residential development in China: empirical findings

7.2.1 Suburbanisation is a ternary process of urbanisation, industrialisation and rural-urban integration
The emerging suburban development is dominated by a top-down strategy of urbanisation, which is attempting to transform state-led industrialisation to a market-oriented land system. Despite the dominant role of government in creating diverse forms of residential suburbs in China, all sectors have been involved in the transformation of rural land for urban use in the contemporary suburban development. The classical suburban theory indicates that suburban growth, especially residential development is a consumer-based American dream (Beauregard 2006). Driven by a coalition of personal choices and preferences, the suburban residential space demonstrates a monotonic and homogeneous middle class social world and the social world is known as exclusivity and homogeneity of middle class (Forsyth et al. 2009). The theory of “the natural evolution” and “flight-from-blight” claims that private domesticity plays a major role in forming suburban lifestyle (Mieszkowski and Mills 1993). Young couples invent suburbia to realise the dream of homeownership. In the American society, this relates to capital accumulation under the influence of Fordist capitalism (Harvey 1987). In the post-socialist countries, the dynamics of suburban residential development are depicted the underlying and multiple driving forces, including the lack of market-based planning system and neoliberal urban transition. Meanwhile, the current post-suburban settlements have emerged as a new spatial fix of the post-Fordist regime (Phelps et al. 2010, Ekers et al. 2012). It proves in a new form that the suburbanisation is the necessary accumulation strategy to deal with current specific situations. In essence, emerging suburban heterogeneity represents a land-centric accumulation system facilitated by the state. To that extent, suburban heterogeneity has been widely noted in the suburban studies, rising the attentions on their diverse forms and spaces.

Massive suburbanisation has recently emerged in China through the strategy of new town development, A land-centred accumulation regime promotes both real estate development and industrial development, which mutually support each other. The unprecedented speed of economic growth and the urbanisation process result in massive housing demands in the urban-peripheries. The current highly centralised and authoritarian governance of suburban development, through a separate institutional body, acts as a leader in private enterprise, making the heterogeneous suburban residential development a special case in suburbanisation studies. Thus,
this research attempts to explore the dynamics of diverse types of residential settlements in Chinese suburbs. It demonstrates that the forms result from the coalition of state-led population decentralisation and market-oriented land development to facilitate suburban growth in a heterogeneous way. Current suburb demonstrates heterogeneous spaces in terms of their economic development and the features of post-suburbia (Wu and Phelps 2011).

Although the United States claims to represent the world’s highest standard of prosperity and life, therefore, many countries imitate their models to develop a form similar to that of the American suburbs (Shen and Wu 2013). Suburban residential development in China demonstrates another standard of lifestyle and prosperity. Besides, suburban growth in China signals a clean break with socialist urbanisation. The dynamics of suburbanisation is not only dominated by state-led land use transformation but also driven by entrepreneurialism of government in the land development process. Current studies acknowledge that suburbanisation in China is driven by state-led and market-oriented land development (Zhou and Ma 2000), and suburbs do not exist in the American sense. Moreover, suburbs are not a distinctive category in the Chinese sense (Shen and Wu 2013). Referring to contemporary findings on suburban residential development in China, studies demonstrate that rural-urban migration has produced large numbers of urban villages on the urban fringe since 1978 (Ma and Wu 2004). Rural-urban land use transformation has produced various types of suburban compounds, containing residents with diversified social backgrounds (Huang and Clark 2002, Zhou and Logan 2008, Fleischer 2010).

The suburban land development in China is nor driven by private sector and machine-style politics, which is widely seen in the American suburban studies. In essence, suburban growth, followed by urbanisation, gave rise to a unique urban fabric in different spatial regions. Transforming empty and edgeless rural land into urban land fulfilled the land supply for a land-centred accumulation regime facilitated by the state; this process has been China’s most successful experience in pursuing rapid economic growth and industrialisation. Thus, the concentration of industrial enterprises in the suburbs led the urban and rural population to move to the suburbs for jobs. However, fast rural-urban land transformation caused massive urban land expansion, which
shifted the industrial structure from agriculture to industry and relevant services. Hence, suburbs in China do not conform to the existing definition in the literature. Instead, the suburbs act as an urban reserve area that undertakes spatial restructuring for the purpose of urban expansion. There has been a lag in the housing supply under massive urban regeneration, including rural migrants, blue-collar workers, relocated residents, and nouveau rich, who need new homes to settle down. The rising demands of individuality and an independent life have pushed the dream of homeownership to become necessary for young couples, who desire to realise a dream of marriage and their own family lives. Thus, suburbanisation in China has become an indispensable condition to support the baby boom. Furthermore, the choice of a new living environment has gone beyond individual choice, representing a collective choice in Chinese society. This indicates homeownership as a life upgrade for every kind of social status in the context of modern China.

### 7.2.2 Suburb is a heterogeneous world

Suburbs in China are not just for the suburban culture at large, but offer specific incentives for residents to mix (Harris and Larkham 2003). Studies in China indicate that urban elites in the Global North generally relocate to the suburbs voluntarily. However, the inhabitants of Chinese suburbs also include the rural population, low income migrants, involuntary relocated and middle-class people, and urban elites. Rising suburban growth shows a distinct phase of urbanisation (Soja 2000). Suburban residential development is not only associated with the dominant migration process but also driven by market-based urban processes blended with communist legacies and systemically unique processes, which are attributable to central planning (Borén and Gentile 2007). Furthermore, the emerging suburban pattern demonstrates the different stages of suburbanisation, rather than growth caused solely by market forces (Wu 2007).

Chinese suburbs are diverse, both in terms of their building forms and residential make-up (Wu 2010). When examining Chinese suburbs, some important questions are: "What are the spatial characteristics of suburban residences?" “Does the
compositions of residences relate to various types of suburban residential areas?"

This study reveals that the growth of suburban areas in China is associated with strong housing demands, rather than a spatial production during a certain phase of urbanisation. This point is discussed as follows. With rapid urbanisation and rising housing demands, the preference of housing location is not a priority when purchasing a new home. This study shows that housing forms on the urban fringe cannot be assimilated into the existing pattern. This is because the private sector initiates primary suburban residential development for investing in land by providing homes of better-off families. The local government builds the street network afterwards, indicating that the strategy of land development initially promoted the private sector to invent a new suburban living landscape on order to achieve population decentralisation. Afterwards, the local government coordinates with the private sector to boost the growth of housing market, in order to introduce the subsequently diverse urban functions in the suburban area. This process suggests that in the Chinese social context, suburban capital accumulation as part of the social class formation, creating the new population structure along with the decentralisation of urban population.

The process of transferring housing supply from homogeneity to heterogeneity implies tremendous housing demands as part of urban life for young families, who pursue low-cost suburban homes to establish an independent urban life. This illustrates that suburban residences are not only for the wealthy and middle class but also developed as an alternative way for young couples and migrants to fulfil the dream of homeownership. The huge forms of suburban residential clusters in China reflect the manufacturing and labour intensiveness as the main body of industrialisation, associated with the large demands of accommodations for migrant workers. Preferential policies serve to improve the investing context in order to sustain high-skilled labours in terms of their requirements for the living environment. This underlines the strategy, which is to generate revenue by boosting land and property development, and to strategically sponsor industrial development.

This study also points out that housing and relative consumption intensify residential differentiation, and reflect a social practice of distinguishing certain homebuyers from others. Housing types have subsequently become an identity that signals a lifestyle
formation, and this process of social differentiation has led to widening disparities in Chinese society. The places in which suburban residents choose to live do not simply follow the state-led strategy of land development, environmental quality and surrounding facilities are also important aspects. Because wealthy families pursue larger homes, beautiful backyards, class identity and establishing social status, their housing choices can be reflected in the need for privacy. Other families – especially young and migrant ones – need to consider the housing prices. While, the huge housing demands support the growth of suburban heterogeneity because suburbs provide diverse housing supplies along with the rapid process of state-led urbanisation. The inner suburbs became migrants’ settlements due to the affordable housing projects and low rent prices. Rural migrants are largely concentrated in low-priced private rental homes. The concentration of high-income residents, ordinary workers, poor migrants, and existing farmers in the suburbs changed the social composition in the new round of suburbanisation.

State-led new town projects have caused massive sprawl in many Chinese cities, resulting in the suburban form becoming more heterogeneous. The massive explosion of suburban development, along with cheaper housing prices, drew large numbers of households to consider the suburbs as their residential location (Wang and Li 2004, Zhou and Logan 2008), leading large numbers of new groups to emerge there. The growing market-oriented real estate not only changes the image of the Chinese suburb but also produces alternative residential places for potential urban homebuyers. This study shows that new towns in China not only contain spaces for residences, businesses, and jobs but are also planned as urban economic growth poles. Beyond middle-class and higher social level families, waves of migration from surrounding rural areas and mobile people from central zones are also part of the population structure. New town developments in China display striking dimensions in terms of scale and influence changes in the urban pattern, as well as accelerate suburban growth and the process of urbanisation. However, suburban heterogeneity in China often spring up around megacities in order to promote urban expansion in suburban areas. The goal of building new towns remains strong in China today in terms of achieving more diversified urban functions and growth.
7.3.3 Suburban diversification serves as a platform for industrial adjustment

Diversifying suburban spaces in China is associated with transforming industrial spaces with comprehensive urban functions through establishing land centred accumulation regime. Tradition pro-growth coalitions among public sections and business interests played a significant role in the post suburban development (Logan and Molotch 1987, Phelps et al. 2010). While such role is not entirely played in the process of suburban development in China, especially for serving as a platform for industrial adjustment. While, land-centred accumulation regime represents a sophisticated manipulation to sustain industrial adjustment. In the political economic sphere, suburbs in China is considered as an enlarge urban engagement (Cox 2017). Moreover, through urban planning, land use control and other regulatory policies, the Chinese government is trying to change the economic structure of the major cities. It is reflected on the one hand to improve the structural proportion of the service industry, and on the other hand to build the suburbs as a node of emerging industries. Meanwhile, political reform attempted to facilitate economic growth by introducing market operations in all aspects of the economy. This signals a shift from state socialism to capitalism. The market-driven approach indicates China’s embrace of neo-liberalism and transformation the usage rights of state-owned land to private developers (Wu 2007). However, the state still plays an enabling role in terms of the development of land use, labour and environmental policy, as well as judicial and legislative frameworks, while private developments take commercial, residential, and industrial forms defined by political and social exclusion. Municipal government formulates strategy to encourage various social sectors to materialise political objectives.

Market-oriented land reform is a state-engineered, state-controlled, state-led process meant to facilitate accumulation and legitimise state power. Moreover, Chinese housing reform provided the most important preconditions for space commodification. With rising land and economic development, suburban expansion has played an important role in serving the needs of capital accumulation in regional and even global economies. With an overall increase in social wealth and an ideological shift, China
has witnessed the proliferation of consumerism and material cultural over the last three decades. Urban residents have experienced a consumer revolution based on an overall improvement of living standards. The practice of consumption become the primary means of actualising an individual’s value and establishing one’s social status and dignity.

The rapid urbanisation and industrialisation spurred the suburban fabric to rapidly emerge. The exclusive, local socio-economic and institutional environments have significant influences on suburbanisation. Although the institutional environment resulted from the top-down strategy, the crucial factor in determining local development involved the ambitions of local decision-makers and the method of turning policy benefits into economic growth. The decentralised political system and economic growth-oriented social environment provide conditions for industrial transformation, and at the same time, the suburbs become the main platform for the development of diversified industries. Firstly, primary industrialisation caused massive population relocation and produced labour-intensive, low-skilled production that established the demands of developing a new economic structure. Secondly, economic growth was the main purpose in designing the policy at different administrative levels. Thirdly, by adjusting urban planning and preferential land policies, state-led urban growth coalitions coordinate municipal urban regeneration and rural-urban integration, in order to rapidly turn suburban industrial zones into diversely functional districts.

7.3 Suburbanisation as a means of urbanisation of rural land

7.3.1 The approach of rural-urban integration

Chinese suburbs are very different from transitional low-density suburbs, but closer to the peri-urban development in other densely populated countries (McGee 1991). This is because suburbanisation in the West often occurs in the context of low population growth. In China, the distinction illustrates the large proportion of migrants that work
in the city while settling on the urban fringe to reduce the expenses of living in the city. Dominated by mid- to high-density developments, suburban growth in China serves to accumulate capital by converting rural into urban land. Furthermore, extensive development is supported by the expansion of mass transit to lower commuting costs between urban and suburban areas. The mix of land use and spatial patterns are characterised as a patchwork structure. This study explains that the land use in Jiangning contains diverse functions, including university and industrial parks, residential quarters for low-cost housing, condominiums, dwellings, mixed and affordable housing, and business centres.

The rapid process of urbanised rural areas is under the control of the central planning strategy to achieve two purposes. The first is land conversion, characterised as rural-urban integration to encourage rural migrants to give up their homesteads in exchange for urban welfare, jobs, and housing compensation. The second purpose is that rather than compensating them for processing rural land transformation, urbanised rural areas have a significant bearing on the improvement of rural residents’ livelihoods, and are conducive to promoting the urban agriculture to increase investment and consumption. In turn, this enables coordinated development between urban and rural areas. The processes are demonstrated by the emerging number of diverse types of suburban residences and different households with diverse socio-economic attributes, ranging from wealthy families living in luxury villas to rural-to-urban migrant workers living in rental homes. Thus, suburbanisation in China is also represented by the spatial reconstruction of social space. The heterogeneity of landscapes and residents indicates an essential difference between Chinese suburbs and transitional middle-class suburbs. The strategy of urbanising rural areas demonstrates central planning in addressing the issues of counter-urbanisation during post-suburbanisation.

In this study, Jiangning’s suburban residential fabric is a mosaic of social worlds, suggesting that the heterogeneity in geographic space is rescaled at a small scale, while fragmented spatial features come to resemble a large scale. Suburbs in China are not exclusive residential settlements for a monotonic social group; rather, they are planned as utopias for every social sector and society. In terms of spatial differentiation and residential segregation, suburban residential development in Jiangning is not a
typical example. However, some settlements are classified as post-suburbia, but with unique features of land development and various dynamics.

7.3.2 Diversified suburban residences: Homes for everyone

Modern images of suburbs show diverse regions defined by their growing social mixing and relative status differentiation (Harris 2010). The suburban residential development for the rising class of the new bourgeoisie led to spatial changes in suburbanisation (Knox 2008). Meanwhile, the Post-Fordism accumulation regime plays an important role in land development, economic growth, and fiscal decentralisation (Phelps et al. 2010). This study further explores the trend of suburban growth in China by asking: “Do Chinese suburbs keep growing heterogeneously, or become homogeneous along with the growing role of market-oriented land development?” On the supply side, the ongoing urban expansion of big cities and increasing population growth caused the state to play a major role in leading the market to collaboratively supply personal demands for housing. On the demand side, Chinese suburbs continue to grow heterogeneously, while the distribution of settlements faces segregation and disparity due to an insufficient land supply for construction.

As one of the densest cities in China, the discrepancy in suburban land development in Nanjing is intensive due to the central policy of prohibiting low-density development since 2000, resulting in villa-type residential form that no longer appear in the suburbs. The central policy implies that low density is no longer a factor of the private sector in promoting suburban living. The policy also suggests that the suburban form is turning into an urban one with increased mixed land use. Middle and wealthy classes about to invest in a suburban home to establish a better-off lifestyle cannot realise the dream of owning a luxurious villa.

In Jiangning, a certain wealthy population owns high-end and low-density luxury homes because of their investment attempts in housing speculation to earn a profit for wealthy accumulation. In addition, the residential forms are diversified because the local government carried out the development of economic development zone during
earlier urbanisation. Other suburbs in China might become homogeneous forms along with urban areas. In terms of location and land prices, the suburbs in China do not need to be as dense as urban zones. Along with the growing role of market-oriented land development, the diversity of the suburban population varies with distance from the central city and the income levels of residential neighbourhoods. Meanwhile, horizontal, low-density development is turning into vertical, high-rise homes with large floor areas to continually supply the demand for housing upgrades. It is becoming difficult to distinguish among the diverse social statuses of households based on the form and branding strategy of real estate development. In this sense, diversified suburban forms contain low-density development, characterised as “the sunset of suburbanisation.” The term “post-suburbia” should be applied to contemporary suburban growth across China, which provides an analytical perspective in comparing both temporal and spatial terms (Phelps et al. 2010).

Migrants comprise another group of suburban residents. They come to large cities in search of better job opportunities, while often earning the lowest incomes and having the lowest occupational statuses, such as serving suburban middle-class families or nearby industries. According to residential settlement and hukou policies, migrants cannot access subsidised housing due to household registration, which makes them unable to acquire full property rights; nor can they access local schools or welfare programs. It has become common to rent cheap housing in under/(re)developed fringe areas (Wu 2008). The living conditions in these neighbourhoods are usually bad, typically marked by overcrowding and poor facilities. However, the existence of rural housing and (re)developed neighbourhoods in peri-urban villages with extremely low rental prices, but with a convenient location for the workplace, is the most important factor that attracts rural-urban migrants to the suburbs.

Housing consumption intensifies social differentiation and creates an identity that signals a lifestyle formation. The process of social differentiation has also led to growing disparities. Before economic reform, urban peripheral areas covered sparse residential zones (danwei housing) developed by stated-owned industries. Large numbers of young families and blue-collar workers occupied this type of settlement to serve nearby factories. Chinese housing reform brought about housing
commodification. Residents were able to obtain housing through the housing market, with or without a subsidy. With the establishment of the housing market, commodity housing became the primary means of the new housing supply. Commodity housing involves a range of packaging and branding activities to attract consumers. High income or better-off households moved away from the city in search of an aesthetically pleasing environment. Packaging and branding practices manifested the living conditions of aesthetic features that represented a “civilised modernity,” which can distinguish better-off suburbia from backward, rural, and traditional old neighbourhoods (Huang and Clark 2002).

Discrepancies between neighbours are social class contradictions resulting from the widening income gap in Nanjing. A vision of creating diversified social statuses in suburbia was a top-down strategy in intervening in market forces, which may have attracted various homebuyers to move to the suburbs, rather than become involved in a homogenous group. Real estate developers are bound to comply with the planning policy, but make full use of different income levels of purchasing power to expand returns on investment. Diversified suburban residential development in Jiangning is not a subjective choice for real estate developers, reflecting a market response to the land policy in maximising profit. In terms of supply, developers urgently fulfil the demands of wealthy suburban utopias on the one hand; on the other hand, developers make full use of design methods to stimulate the desire for a housing upgrade among low and middle-income groups, while ensuring the interests of the affluent class, without being damaged on the basis of mixed-housing development.

7.3.3 The model of suburban governance: The prospect of the state-led mode

The Chinese suburban regime is distinctive in terms of its re-organisation of entrepreneurial governance. China has a history of being a strong developmental state. People usually have the incorrect perception that China is still an authoritarian regime, as it was in 1979. However, in terms of governance and management, local governments often show a strong influence on land development, rather than the state
itself, and administrative sectors often coordinate with the private sector by forming growth coalitions in response to changing land policy.

In this study, the Jiangning District government enjoys strong autonomy, resulting in suburban development largely organised by the local government, rather than the central state, which is unique compared to many Asian countries in terms of suburban governance. The suburban urban politics and economic mode are built around land-centred development, which is close to the growth machine model. Meanwhile, primary land development, dominated by the private sector, led to widespread private governance in gated communities and expanding pro-growth coalitions. However, the strong autonomy gives local decision-makers great power to fulfil the goals of economic growth and to organise pro-growth coalitions in their own ways, while other sectors exert much less influence.

By transforming Jiangning from an industrial zone into a nice suburban district, the local government has revealed its dominant governance capacities to achieve its goals. The local government not only mobilised various resources and administrative measures to remove possible obstacles to urban development but also directly invested in infrastructure and other public facilities to create favourable conditions for the booming suburban housing market. The flexibility of suburban governance and a liberalised system aims to embrace rapid growth, leading to the reconstruction of social space and a dramatic shift in the public image of the suburbs in a short period of time.

The demand-based forces driving suburban residential development in China is propelled by three dimensions. Firstly, government-led industrial restructuring creates diverse employment conditions to provide a large number of jobs for different people. Secondly, in the centralised society, housing demand for better living conditions is usually dominated by enhancing living environments attracting affluent families to the suburbs. Thirdly, rural-urban migration occurred via the massive conversion of agricultural land into urban use, which leads tremendous suburban land development. Large amounts of capital invested by the different sectors played a critical role in driving the prosperity of residential growth. The capital accumulation is strongly
associated with low-risk investments and quick financial returns. Residents with diverse social backgrounds live in suburban space in China. Massive state-led land development results in locals giving up their previous homes and land. In return, they became materially rich in the land-centred economy, because housing consumption dominates suburban growth in China. Meanwhile in spatial terms, different driving forces of growth have resulted in a heterogeneous suburban space. Villa-style households self-sorted into the certain type of neighbourhoods because the housing forms in the Chinese suburbs are rare, which is distinct with the western suburbs. However, their housing preference shows similar features with western one, because their settlements are like an enclave in the socially mixed suburbs.

To a large extent, the distinctive suburban residential development corresponds to the process of rural-urban integration. The unique suburban landscape offers a private location for the nouveau rich to realise their aspirations through spatial exclusion and lifestyle practices. Meanwhile, suburban home has become an object of speculation. The transformation of residential preferences does not significantly influence the dynamic of social residential pattern in the Chinese suburbs. Heterogeneous social groups and diversified housing demand make suburban space still the growth pole of China’s urbanisation and economic activities.

7.4 Broader implications

The final broader implications of this study on Chinese suburban residential development concerns the creation of heterogeneous spaces in the suburbs. Chinese suburbs are well-planned as new towns, which become the carriers of urban expansion and the supplements of urban space. Suburban development is at the forefront of China’s urban revolution and its growth dynamics provide a useful explanation on urbanisation as an engine of China’s growth (Shen and Wu 2013). While, existing studies have confirmed that driven by a diversified development strategy, the suburban spaces in China are featured by fragmentation and spatial differentiation (Feng and Zhou 2005). In the state-led strategy of urban expansion, planning interventions and local economic growth demand, while on the one hand,
suburban space has become a main platform of government revenue, it has stimulated the rapid growth of the local real estate market. Driven by a large housing demands and housing consumptions, the growth coalitions formed by the local government and developers have made suburban land a major carrier of urban housing and employment, boosting land-centred industrial development. Although, the strong local government ambition is efficient in terms of boosting economic growth. But it pushes local rural residents to give up their rural identity through urbanisation. The reconstruction of suburban space and massive housing demolitions establish urban social spaces and relevant production spaces which complies with the institutional initiative and socioeconomic factors. Furthermore, the land-centred economic development model attracts local growth coalitions to pay over attention on the housing demands of affluent class, while ignoring the employment opportunities of migrants and local rural residents.

There are debates on whether the suburban development under a strong state control or a more liberalised system is more conducive to achieving sustainable growth (Phelps and Wood 2011, Shen 2011). While In China, the extremely strong capabilities of policy intervention and mechanisms can not only mobilise resources to eliminate possible barriers to urban development, but also directly change the spatial functions and patterns of city through planning means. At the same time, by governing and controlling residential form and social composition of the residents through land development, the political ambitions and achievements of the local administrations are completed. Meanwhile, in the absence of public participation and effective resistance of the institutional environment, individual interests are inevitably affected by the state-led mode, while the overall effects of such development under strong governmental intervention are still questionable in terms of economic, social, and environmental sustainability. In addition, with the growing young middle class in China, suburbanisation has emerged as a trend among young people. The suburbs, with a heterogeneously urban landscape, fulfil the young generation’s dream of pursuing modernisation and a prospective environment. However, the local government keep implementing a strong intervention in the inner suburbs to maintain high-density development, and rely heavily on the private sector to develop low-density housing in the outer suburbs for wealthy elderly citizens.
Studying on suburban residential development in China can be found that the theoretical generalisation of modalities and mechanism suburban governance (Ekers et al. 2012) has to be enriched by unpacking the typologies of suburban residential spaces at much finer scale. Under the government’s planning intervention, the original monotonic suburban industrial parks have developed into the diversified urban spaces. This study reveals that both suburban pattern and population compositions are more diverse than what is traditionally imagined. Therefore, the study of China’s suburbanisation not only provides a classic case for the suburban residential typologies in the suburban theories, but also has empirical significance for new town planning and practices. Meanwhile unlike with Western suburbs and suburbs in the many east Asian countries, Chinese government and their planning implementations have strong power over neoliberal development, which differ to stimulate land development by privatisation and deregulation (Marcotullio 2003). Moreover, the residential preferences dominate the growth of suburban housing market rather than the personal preferences. The landscape and spatial composition of the suburbs can be rapidly changed under the state-led market mechanism and become a space with urban functions. Therefore, the role of planning should not only serve the needs of the government and meet the demands of urban growth, but it also should be the means of implementation to meet individual requirements on developing functional spaces. The current competition of economic growth among districts and cities inevitably leads to utilitarian planning implementation and urban management (Lewis 2004, He and Wu 2009). The diversified spatial patterns have become the trend of emerging suburban residential development in China, the meaning of urban planning should also be defined on a much finer scale to avoid potential threats to sustainable development.
Appendix 1 Survey Questionnaire

Jiangning Residents’ Residential Development and Living Conditions Survey

Dear Sir/Madam:

I am a PhD student in the Bartlett School of Planning, UCL, UK, undertaking a research project on suburban residential development and living conditions. I invite you to participate in my survey and I appreciate you for answering the questionnaire honestly. The purpose of the survey is to provide valuable empirical evidence on Jiangning’s residential development and living conditions, which is significant for policy implement and delivery.

Your family represents many other similar households in Jiangning and the information you provide is very important to the research. Undergraduate student from the School of Architecture and Urban Planning, Nanjing University will assist you to finish the questionnaires. Information provided here will be kept strictly confidential and not be used for any other purpose except academic research.

Thank you for your cooperation.

Yours truly,

Tianke Zhu
PhD Researcher,
Bartlett School of Planning, UCL, UK
Tel: +86 13913964450 Email: tianke.zhu.11@ucl.ac.uk
A : Basic information for household head

A1 : Age :
1, □Under 18
2, □18-29
3, □30-39
4, □40-64
5, □More than 65

A2 : Gender
1, □Male
2, □Female

A3 : Marital Status
1, □Single
2, □Married and living with spouse
3, □Married but not living with spouse
4, □Divorced or widowed

A4 : Educational attainment
1, □Uneducated
2, □Primary
3, □Junior high school
4, □Senior high school
5, □Technical or vocational training
6, □Junior college
7, □Undergraduate degree
8, □Postgraduate degree
9, □PhD degree

A5 : Hukou Classification
1, □Local non-agricultural hukou
2, □Local agricultural hukou
3, □Nonlocal non-agricultural hukou
4, □Nonlocal agricultural hukou
4, □Foreign nationality

A6 : Hukou location
1, □Nanjing Jiangning
2, □Other districts in Nanjing
3, □Other places

A7 : Occupation
1, □Farmer
2, □Manual worker/social service worker
3, □Skilled worker
4, □University professor
5, □Civil servant
6, □Specialist (includes: architect, doctor, solicitor, designer, etc.)
7, □Manager/ director/cadre
8, □Private enterprise owner (More than one employee)
9, □Private enterprise employee (More than one employee)
10, □State-owned enterprise manager/director
11, □State-owned enterprise employee
12, □Small business owner
13, □Freelance

A8 : Employer type
1, □Government
2, □Public sector (e.g. education, healthcare, research institutions)
3, □State-owned enterprise
4, □Collective owned enterprise
6, □(Self-owned) private enterprise
7, □(Non-self-owned) private enterprise
8, □Foreign Enterprise
9, □Joint venture
10, □Household business
11. Others (A8a. Please specify: ______)

A9: Family monthly income
1. □<¥1,000
2. □¥1,000 ~ ¥5,000
3. □¥5,000 ~ ¥10,000
4. □¥10,000 ~ ¥20,000
5. □>¥20,000

A10: Which level applies to your family’s standard of living?
1. □Wealthy
2. □Xiaokang (moderately well off)
3. □Wenbao (basic living needs)
4. □Poor

A11: Household composition
1. □Three family generations living together
2. □Two family generations living together
3. □Non-family members living together with you

What are your relationships with people you live with? (Multiple choices)
1. □Spouse/partner
2. □Children
3. □Parents
4. □Parents in law
5. □Other relatives
6. □Friends
7. □Colleagues
8. □Household maid

B: Housing conditions and residential mobility
B1: Housing tenure:
A. Home ownership:
1. □Inherited housing
2. □Subsidised/welfare housing
3. □Affordable housing
4. □Incomplete property right housing
5. □Full property right new commodity housing
6. □Full property right second-hand commodity housing
7. □Resettlement housing
8. □Others (B1a. Please specify: ______)

B: Renting
9. □Private rented housing
10. □Public rented housing from work units
11. □Public rented housing from the government
12. □Others (B1a. Please specify: ______)

If you live in your own house, please answer B2-B6; If you live in a rental house, please answer B7-B8.

B2:
a. When did you buy the house? ______ (mm/yy)
b. Total cost ____ (Ten thousand Yuan)

B3: Did you buy the house on mortgage?
1. □Yes (B3a. Down payment percentage ______)
2. □No

B4: Sources of funding (multiple choices):
1. □Income savings
2. □ Money raised by selling previous houses
3. □ Housing Provident Fund (HPF)
4. □ Parents or other relatives
5. □ Housing subsidy from work unit/employer
6. □ Loans from work unit/employer
7. □ Private loans
8. □ Accumulation fund mortgage
9. □ Commercial mortgage
10. □ Housing subsidy from the government
11. □ Redevelopment compensation fee
12. □ Others (B4a. Please specify _____)

All please continue to answer the following questions

B9: The date when you moved in this house: _____ (mm/yy)

B10: a. Total building area of the house____m²;
b. Total bedrooms ______
c. Total living rooms ______

B11: The reason why you moved out of your previous house:

A: Passive move
a1. □ Relocated by public works
a2. □ Relocated by property projects
a3. □ Housing congestion alleviation programme
a4. □ Relocated by land acquisition
a5. □ Welfare housing allocation

B: Active move
b1. □ For a location closer to work
b2. □ For a location closer to children's school
b3. □ Marriage or moving with family
b4. □ To improve living space
b5. □ To improve living environment
b6. □ To enhance life quality
b7. □ For cheaper rent

2, □ Unable to guarantee the repayment of the mortgage
3, □ Renting a house is more cost-effective
4, □ To wait and see how the property market goes
5, □ Insecure employment
6, □ Others (B8a. Please specify_____)

B5: Use of the house:
1. □ As usual residence for self and family
2. □ As holiday residence for self and family
3. □ As usual residence for children
4. □ As usual residence for parents
5. □ For rent
6. □ For investment
7. □ Others (B5a. Please specify _____)

B6: Do you have another house in Nanjing?
1. □ Yes (please answer B6a)
2. □ No

B6a: Total houses you own in Nanjing ______

B7: a. Rental term: from (mm/yy) to (mm/yy)
   b. Monthly rent: _______ Yuan/month

B8: The most important reason for not buying a house____
1. □ Unable to afford down payments
B12: The reason for which you moved into your current house (please select three most important factors among the options below):

a. The first important factor ______;
b. The second important factor ______;
c. The third important factor ______;

Living environment
1. A good city plan
2. Songjiang University Town
3. Quality living environment in suburbs
4. All-round living facilities and services

Accessibility
5. No.9 Metro Line
6. Highways

Employment
7. More/better employment opportunities
8. Close to work place

Cheap housing/rent prices
9. Cheap housing price
10. Cheap rent

Quality estates
11. Distinctive design style
12. A good internal layout
13. Good privacy
14. Well-known development company
15. A good investment
16. High status neighbours
17. Others (B12d. Please specify)

B13: Please indicate how satisfied you are with the following factors of your current living conditions:
5=Very satisfied  4= Satisfied  
3= Neutral  2=Dissatisfied  
1=Very dissatisfied  0=N/A

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C : Daily life
C1 : Does your family own cars?
1, □ Yes
2, □ No (please go to C3)

C2 : a. When did you buy your first car?  
   __________(mm/yy)  
   b. The most important use of the car :
1. □Commuting  2. □Children shuttle
3. □Visiting relatives and friends
4. □Shopping
5. □Entertainment and recreation
6. □Others (C2c. please specify _______)

C3 : How do you commute to work?
1. □On foot  2. □By bike
3. □By bus  4. □By rail
5. □By car
6. □Not applicable/ working at home (Please go to C5)
7. □Others (C3a. Please specify _______)

C4 : How long is your one-way commute time? ___________ Minutes

C5: 
a. How much was your family’s electric bill this June? ______Yuan
b. What does your family spend on petrol every month on average? ______Yuan
c. What does your family pay for rail transport every month on average? ______Yuan
d. What does your family spend on bus transport every month on average? ______Yuan

C6 : a. Except for work, how often do you and your family go to the central city? _______
b. The most frequent destinations are (multiple choices)
   1. □Shops
   2. □Sport complexes
   3. □Parks
   4. □Cultural and entertainment places
   5. □Restaurants
   6. □Library/hospital/post office
   7. □Visiting relatives and friends
   8. □Others_____ (C6c please specify )

C7 : How often do you and your family contact your neighbours?
1. □Frequently  2. □Sometimes

C8 : How do you feel about close contact with neighbours?
1. □Troublesome  2. □Unimportant
3. □Very important  4. □Indifferent

C9 : Which kind of lifestyle do you prefer?
1. □Urban lifestyle
2. □Suburban lifestyle

C10 : Has your present life met your original expectations?
1. □Yes  2. □No

C11 : Do you and your family plan to settle down in Jiangning?
1. □Yes
2. □No
3. □Hard to say

C12 What kind of area do you think Jiangning is in Nanjing
1. □Suburban area
2. □Urban area
3. □New town
4. □Rural area
Appendix 2 Interviewee list

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<th>Categories</th>
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<tr>
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<td>G2</td>
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<td>G3</td>
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<td>G4</td>
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<td>G5</td>
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<td>P2</td>
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<td>Chief executive director of Vanke Jiangsu, China Real Estate Development Co. Ltd</td>
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<td>D2</td>
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<td>D3</td>
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<td>Chief executive director of Top Regent Real Estate (TPRE)</td>
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<td>Project manager of Master-Land Real Estate Development</td>
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References


