

**The Role of Local Governments in Emerging
Regional Business Systems**
A Comparative Analysis of Zhejiang and Yunnan
Provinces

Zhen Lu



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**The Role of Local Governments in Emerging
Regional Business Systems
A Comparative Analysis of Zhejiang and Yunnan Provinces**

**De rol van lokale overheden in nieuwe
regionale bedrijfssystemen
Een vergelijkende analyse van provincies
Zhejiang en Yunnan**

Thesis

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by

Zhen Lu
born in Yunnan, China

**International
Institute of
Social Studies**

The logo of Erasmus University Rotterdam, featuring the word "Erasmus" in a stylized, cursive script.

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This dissertation is dedicated to my parents.



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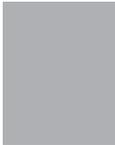
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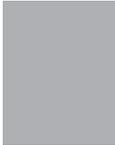
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Acronyms

AIC	Administration for Industry and Commerce
CME	Coordinated Market Economy
CSMAR	China Stock Market & Accounting Research Database
DME	Dependent Market Economy
ECE	Eastern Central Europe
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GRP	Gross Regional Product
HME	Hierarchical Market Economy
LME	Liberal Market Economy
M&A	Merger and Acquisition
MNC	Multinational Corporation
PPP	Public–Private Partnership
SASAC	State-owned Assets Supervision and Administration Commission
SME	Small and Medium Enterprise
SIME	State-influenced Market Economy
SNM	Strategic Niche Management
SOE	State Owned Enterprise
TNC	Transnational Companies
TVE	Township and Village Enterprise
VOC	Varieties of Capitalism



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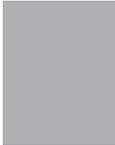
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Abstract

The Chinese economy has undergone a radical transformation since 1979, from a planned economy to a market economy. The economic reform has facilitated significant and rapid economic growth, while regional disparities are increasing in the heterogeneous transitional Chinese economy. As the neoclassical perspective substantially ignores the role of institutions in shaping the economic system and cannot specify how paths are formed and evolve, or how the role of economic actors changes over time, business systems theory and evolutionary theory have been used in this thesis to understand the distinctive evolving regional development trajectories in the transitional Chinese economy.

This research aims to study the changing roles of local governments in influencing the dynamic regional business systems in the transitional heterogeneous Chinese economy. In order to examine the evolving regional business systems, this research: (a) brings the regional state into business systems theory, given that both the varieties of capitalism approach and conventional business systems theory ignore regional differences; (b) connects evolutionary perspectives and business systems theory, given that the varieties of capitalism approach and business systems theory have both been criticized for developing a relatively static approach; and (c) highlights the unique form of decentralization in China which shapes the role of the state and the regional business systems.

For the purposes of this research, Zhejiang and Yunnan have been selected as two contrasting cases to reflect significant regional differences. Four research questions are posed: (a) what are the existing regional business systems in Zhejiang and Yunnan; (b) how and why have specific regional business systems and development trajectories been formed and evolved over time in Zhejiang and Yunnan; (c) how has the role of local governments evolved in the transitional economy; and (d) will regional differences and distinctive regional development trajectories in Zhejiang and Yunnan converge or diverge over time?

The findings and the answers to the main research questions can be briefly summarized as follows. The research identified a market-led business system in Zhejiang and a state-led business system in Yunnan, both of which show a high degree of regional institutional complementarities (regional coherence). The regional resource base, industrial structure, the strength of the state, the institutional structure, the decentralization reform and promotion system, and the pre-existing regional development path mutually shape the regional development trajectories and lead to strong path dependence and long-term institutional complementarities in both Zhejiang and Yunnan.

Moreover, the highly competitive environment, which has been framed by the unique decentralization reform in China and the promotion system, plays a crucial part in shaping the role of local government and state–business relations, and also strengthens the local industrial development path in the two regions. Zhejiang’s local governments play a regulatory and service-oriented role from a distance, while Yunnan’s local governments strategically coordinate economic activities, directly or indirectly. Finally, the research indicates that the regional differences and distinctive regional development trajectories in Zhejiang and Yunnan are currently divergent, and show no sign of convergence.

DE ROL VAN LOKALE OVERHEDEN IN NIEUWE REGIONALE BEDRIJFSSYSTEMEN

Een vergelijkende analyse van provincies Zhejiang en Yunnan



Samenvatting

De Chinese economie is sinds 1979 radicaal omgevormd van een planeconomie tot een markteconomie. De economische hervorming heeft een significante en snelle economische groei mogelijk gemaakt, terwijl regionale verschillen in de heterogene Chinese overgangseconomie toenemen. Het neoklassieke denkkader laat de rol van instituties in de vorming van het economische stelsel grotendeels buiten beschouwing, en geeft niet aan hoe paden worden gevormd en zich ontwikkelen, of hoe de rol van economische actoren in de loop van de tijd verandert. Daarom worden de onderling verschillende regionale ontwikkelingstrajecten die zich in de Chinese overgangseconomie voordoen in dit proefschrift onderzocht vanuit de bedrijfssysteemtheorie en evolutietheorie.

Dit onderzoek is gericht op de veranderende rol die lokale overheden spelen bij het beïnvloeden van de dynamische regionale bedrijfssystemen in de heterogene Chinese overgangseconomie. Om de zich ontwikkelende regionale bedrijfssystemen te onderzoeken omvat dit onderzoek de volgende elementen: (a) opname van de regionale overheid in de bedrijfssysteemtheorie, aangezien zowel kapitalisme-benaderingen als de conventionele bedrijfssysteemtheorie geen rekening houden met regionale verschillen; (b) de verbinding van evolutionaire perspectieven met de bedrijfssysteemtheorie, gezien de kritiek op de relatief statische benadering van zowel kapitalisme-benaderingen als de conventionele bedrijfssysteemtheorie; en (c) het belichten van de unieke vorm van decentralisatie in China, die vormgeeft aan de rol van de overheid en de regionale bedrijfssystemen.

In dit onderzoek zijn de provincies Zhejiang en Yunnan gekozen als twee contrasterende casussen om belangrijke regionale verschillen weer te geven. De vier onderzoeksvragen zijn: (a) wat zijn de bestaande regionale bedrijfssystemen in Zhejiang en Yunnan; (b) hoe en waarom zijn in de loop van de tijd specifieke

regionale bedrijfssystemen en ontwikkelingstrajecten gevormd in Zhejiang en Yunnan en hoe en waarom hebben die zich ontwikkeld; (c) welke ontwikkeling heeft de rol van lokale overheden in de overgangseconomie doorgemaakt; en (d) zullen regionale verschillen en afzonderlijke regionale ontwikkelingstrajecten in Zhejiang en Yunnan in de loop van de tijd convergeren of divergeren?

De onderzoeksresultaten en antwoorden op de centrale onderzoeksvragen kunnen als volgt worden samengevat. Uit het onderzoek bleek dat Zhejiang een marktgeleid bedrijfssysteem heeft en Yunnan een door de overheid geleid bedrijfssysteem. Beide vertonen een hoge mate van regionale institutionele complementariteit (regionale coherentie). De regionale hulpbronnen, industriële structuur, kracht van de overheid, institutionele structuur, decentralisatie, het bevorderingssysteem en reeds bestaande regionale ontwikkelingspad geven wederzijds vorm aan de regionale ontwikkelingstrajecten en leiden tot een sterke afhankelijkheid en institutionele complementariteit op de lange termijn in zowel Zhejiang als Yunnan.

Bovendien speelt de zeer competitieve omgeving die het gevolg is van de unieke Chinese decentralisatiehervorming en het bevorderingssysteem, een cruciale rol bij het vormgeven van de rol van de lokale overheid en de betrekkingen tussen overheid en bedrijfsleven. Ook versterkt dit competitieve klimaat het lokale industriële ontwikkelingspad in de twee regio's. De lokale overheden in Zhejiang spelen een regelgevende en dienstverlenende rol op afstand, terwijl de lokale overheden in Yunnan de economische activiteiten direct of indirect strategisch coördineren. Ten slotte blijkt uit het onderzoek dat de regionale verschillen en de afzonderlijke regionale ontwikkelingstrajecten in Zhejiang en Yunnan momenteel divergeren en geen teken van convergentie vertonen.

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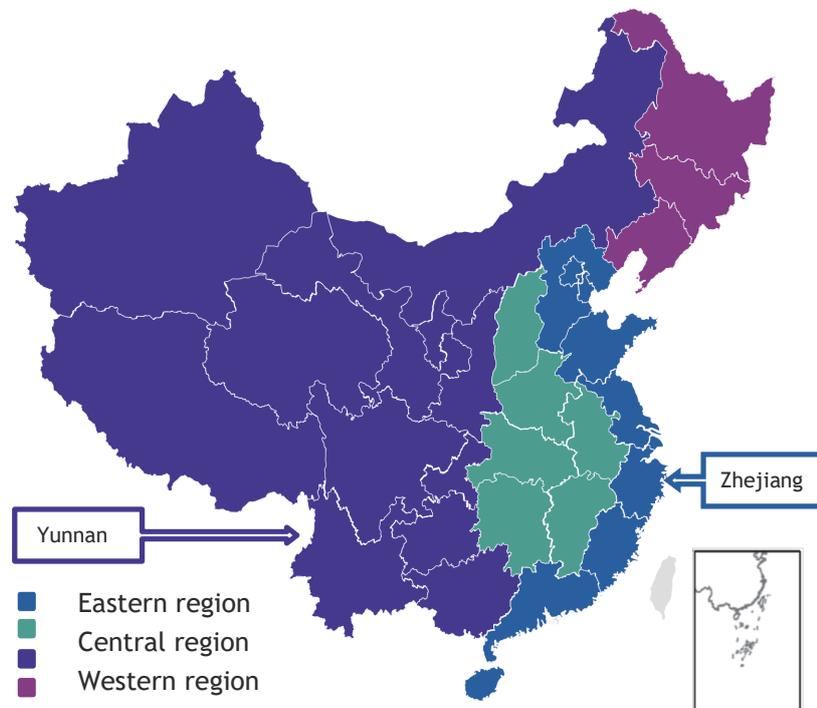
Introduction

Since 1979, the Chinese economy has undergone a radical transformation, from a planned economy to a market economy. After the People's Republic of China was founded in 1949, the central government adopted a highly unified and centralized planned economic system and implemented a heavy industry-oriented development strategy. However, the overcentralized and unbalanced national development plan and the radical and overambitious political and economic campaign resulted in a critical economic decline. As the planned economy was proved a failure, in late 1978, the central government creatively introduced a reform and opening-up policy into the national development strategy with the aims of fixing the devastated economy and seeking an efficient alternative model to promote economic growth. Market forces became essential to the Chinese economy through a series of decentralization and marketization reforms, which stimulated the market and provided strong incentives to local authorities to promote regional development. The growth rate of GDP in 2018 was 6.6% and GDP itself reached 90 trillion yuan (5.9 trillion euro) (National Bureau of Statistics 2019). Overall, the implementation of market-oriented reform has facilitated significant and rapid economic growth in the past 40 years.

Besides the outstanding economic performance, economic reform shaped a unique dual system in China. Given its status as a transitional economy, the state still actively guides and supports economic actors and organizations, but market forces play an increasingly crucial role in economic growth. While the state-owned elements of the economy persist and predominate, the private sector has developed and now makes a major contribution to the economy. Economic reform also moulds the way in which economic actors, organizations, and institutions coordinate their economic activities and the relationships they establish across different domains. The relationship between the central government and local authorities, inter-jurisdictional relationships, state–business relations, as well as inter-firm relations, have all been reshaped in China's transitional economy.

Economic system transformation can be considered an evolutionary process of reallocation of resources by market forces or state intervention, which leads to a spatial clustering of mobile capital, labour, and other resources. According to Kanbur and Venables (as cited in Van Helvoirt 2009: 31–32), in most developing and transition economies, including China, “there is a sense that spatial and regional disparities in economic activity, income and social indicators, are on the increase”. The Chinese economy is characterized by great regional differences in resource endowments, industrial structures, business cultures, and institutional configurations. For instance, light industries or a mixture of light and heavy industries are predominant in the eastern regions, while heavy industries are mainly distributed in the northern and western regions (Tan et al. 2015: 141). Notably, the implementation of economic reform in the transitional Chinese economy, with its vast territory, has widened the regional divergence in spite of the shift of emphasis of the national development strategy from the eastern, coastal region to inland areas (Map 1.1). More specifically, in the initial stage of economic reform, the central government initiated the open-door policy and selected eastern coastal cities and ports to establish special economic zones and economic development zones to encourage foreign businesses and foreign investment. Since then, the central government has successively conducted a “China western development plan” in 2000, “the rise of central China” in 2004, and “revitalizing the old northeast industrial bases” in 2006. In 2017, the eastern region contributed 52.6% of total GDP, while the gross regional product (GRP) of central and western areas accounted for 21% and 20% respectively, with the northeastern region trailing on 6.4%. The GRP per capita in the eastern region was 1.9 times higher than that in the western region (National Bureau of Statistics 2018). The regional development in central, western, and northeastern China has far lagged behind the eastern region. Furthermore, the unique form of decentralization in China has played a major role in shaping this uneven development pattern, with both the state and private sector actively involved in promoting economic development. Hence, the process of restructuring the economic, industrial, and institutional configurations since 1979 has led to a significant divergence in regional economic development.

Map 1.1
The four economic regions of China



Just as the neoclassical perspective puts the market into a “social vacuum”, it substantially ignores the role of institutions in shaping the economic system (see e.g. Samuels 1984, Granovetter 1985, Bardhan 1987, Hodgson 1998). The basic assumptions of mainstream economics maintain that the market is perfectly informed, and that limited resources are allocated by market forces, which will eventually converge towards an equilibrium. However, in reality, these ideal market conditions have never existed in a transitional economy, such as the heterogeneous case of China. Therefore, the neoclassical perspective cannot specify exactly how paths are formed and evolve over time, and exactly how economic actors, organizations, and institutions coordinate change in complex socio-economic contexts.

To understand and compare the changing role of economic actors and institutions in the distinctive and evolving regional development trajectories in the transitional Chinese economy, a comprehensive framework is required. Hence, this study applies the comparative system theory with an evolutionary perspective. As no unified operational set of measures has been developed in the comparative system theory, factors that connect economic, social, institutional, technological, cultural, or

political concerns can all be studied in an effort to explain and understand dynamic regional development trajectories. However, this research does not study all possible explanations and factors but uses the basic conceptual categories of Whitley's business systems theory. Factors that are external to the business systems theory's conceptual framework, such as cultural, technological, political, and demographic factors, are not the main focus of this study. This research mainly pays attention to the industrial, economic, and institutional factors.

Hence, the research objective is to study the changing roles of local governments in influencing the dynamic regional business systems in the transitional heterogeneous Chinese economy.

To examine the evolving regional business systems, this research: (a) brings the regional state into business systems theory, given that neither the Varieties of Capitalism (VoC) approach nor business systems theory pay attention to regional differences; (b) connects evolutionary perspectives and business systems theory, as both the VoC approach and business systems theory have been criticized for their relatively static approach; and (c) highlights the unique form of decentralization in China in shaping the role of the state and the regional business systems (see Chapter 2).

The dynamism of the regional business system consists of three parts:

- a. changes in the productive organization, i.e. enterprises (this research focuses on domestic industrial enterprises, with the selection of sectors and type of firms elaborated in Chapters 3 and 4);
- b. changes in the organization and role of the (regional) state;
- c. relationships between (regional) state and enterprises, i.e. state–business relations.

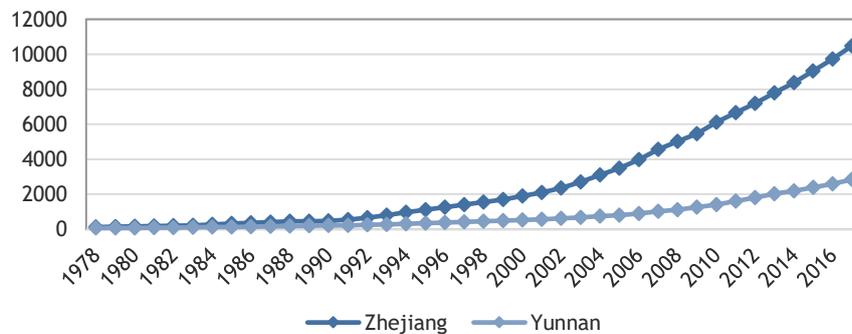
For the purposes of this research, Zhejiang from the well-developed eastern coastal area and Yunnan from the less-developed western region were selected as two contrasting cases of the unique dual system and the heterogeneous Chinese economy. The regional differences between the two provinces are manifest in economic performance, industrial structure, and institutional configurations. Zhejiang is seen as the “birthplace” of the private economy in China, whereas Yunnan has a strong state sector. Zhejiang and Yunnan, as two contrasting cases which reflect significant regional differences, were chosen based on theoretical replication logic to compare whether the empirical results produce contrasting results. In short, two

contrasting cases were selected in this research to understand the changing role of the state in distinctive evolutionary regional business systems.

Zhejiang province (11 prefecture-level cities, 20 county-level cities, provincial capital: Hangzhou) is situated in the eastern coastal area of China, occupying 1.06% of the total land area of the country (National Bureau of Statistics 2017). The total population in Zhejiang reached 55.9 million in 2016, accounting for 4% of the total population in China (ibid.). As one of the smallest provinces by area in China, the population density in Zhejiang (549/km²) was 3.8 times the average population density in China (144/km²) (ibid.). In the past 40 years, Zhejiang has achieved astonishing economic growth. The GRP in Zhejiang has sharply increased from only 12.4 billion yuan (1.6 billion euro) in 1978, ranked 12th place out of 31 provinces and autonomous regions, to 5.18 trillion yuan (0.66 trillion euro), ranked 4th place, with an average annual growth rate of 12.1% from 1978 to 2017 (National Bureau of Statistics 2018).

Yunnan province (eight prefecture-level cities, 13 county-level cities, provincial capital: Kunming) is a mountainous region with a high level of ethnic diversity, situated in the southwest of China, bordering Vietnam, Laos, and Myanmar. Yunnan takes up 4.1% of the total land area of China and is ranked the country's eighth-largest province. In 2016, the total population in Yunnan was 44.7 million, accounting for 3.5% of the total population in China, and the population density was 121/km², which is below the average population density (144/km²) in China (National Bureau of Statistics 2017). As noted above, regional development in western China has lagged far behind that of the eastern region. The GRP in Yunnan was only about 1.64 trillion yuan (0.21 trillion euro), ranked 21st out of 31 provinces and autonomous regions in 2017, with an average annual growth rate of 10% from 1978 to 2017 (National Bureau of Statistics 2018). After 1997 Yunnan experienced seven years of economic downturn, and since 2000, Yunnan's GRP has ranked amongst the bottom ten provinces in China around 24th (Yunnan Provincial Bureau of Statistics 2018).

Figure 1.1
The real GRP of Zhejiang and Yunnan (1978-2017)



Source: National Bureau of Statistics 2018

Note: Real GRP (1978-2017) of Zhejiang and Yunnan are calculated with constant price at base year 1978=100. (Real GRP_N= GRP_{base year}* Indices of GRP_N/100)

In Figure 1.1, real GRP in Zhejiang and Yunnan from 1978 to 2017 were calculated to show the significant gap in economic performance between the two provinces. Figure 1.1 illustrates that both Zhejiang and Yunnan show upward trends over time. In the initial stage of economic reform, real GRP in Zhejiang was a little higher than that of Yunnan. However, real GRP in Zhejiang rose dramatically from the early 1990s, while the growth of real GRP in Yunnan was relatively slow. By 2016, Zhejiang's GRP was some four times higher than that of Yunnan. Nevertheless, their economic performance in the past decades was not the primary reason for selecting Zhejiang and Yunnan — rather than any other provinces in eastern coastal and western China — as two contrasting cases of regional variation.

Eastern provinces like Guangdong and Fujian were given explicit policy support in the early 1980s to establish four special economic zones, namely: Shenzhen, Zhuhai, Xiamen, and Shantou. Unlike most of the eastern provinces, however, we cannot attribute the outstanding economic performance of Zhejiang to preferential national development strategies in the initial stage of economic reform. Rather, Zhejiang is deemed to have pursued a regional development model rather than receiving priority from the central government over other, inland regions.

At the same time, as a relatively backward part of China, Yunnan had achieved rapid growth in the light industry sector during the period 1979 to 1992 (Xu and Yang 2014). Five state-owned enterprises (SOEs), known as the “Five Golden Flowers” of Yunnan, manufactured bicycles, refrigerators, TVs, washing machines, and automobiles, and once occupied a dominant position in the market (ibid.).

However, as the private sector developed, enterprises in the light industry sector, mostly SOEs, lost their market dominance, and all “Five Golden Flowers” went bankrupt in 2000 (*ibid.*). Since then, and in spite of the implementation of economic reform over many years, the poor economic conditions in Yunnan have not improved. It seems that Yunnan confronts considerable obstacles in the process of implementing reforms.

Hence, compared with other regions, Zhejiang and Yunnan — representing two distinctive business systems and entirely different economic performances — are better suited to reflect significant regional variation and to understand how and why distinct forms and patterns have been shaped and have evolved under the same national-level reforms and policies in the heterogeneous Chinese economy. Taking an evolutionary perspective, significant empirical regional divergences are found in the dominant economic, industrial, and institutional configurations and structures in Zhejiang and Yunnan, which will be discussed in this research. Thus, in order to understand the evolving development trajectories and changing role of economic actors in Zhejiang and Yunnan in this transitional heterogeneous economy, a series of research questions are posed here.

- a. What are the existing regional business systems in Zhejiang and Yunnan?
Sub-questions:
 - (1) What are the dominant economic and institutional features in the two regional business systems?
 - (2) What are the coordination mechanisms among economic actors and institutions?
 - (3) What institutional economic factors (e.g., regional resource base, industrial structure, institutional structure, or other factors in the conceptual framework of business systems) determine the dominant features and coordination mechanisms of the existing business systems?
- b. How and why have specific regional business systems and regional economic development trajectories been formed and evolved over time in Zhejiang and Yunnan?
Sub-questions:
 - (1) What institutional economic factors determine the historical development trajectories (before 1979)?
 - (2) What institutional economic factors determine the regional divergence in the transitional economy (1979 to present)?

- (3) Do the regional resource bases, the regional pre-existing economic, industrial, and institutional arrangements matter?
- c. How has the role of local governments evolved in the transitional economy?
- d. Will regional differences and the distinctive regional development trajectories in Zhejiang and Yunnan converge or diverge over time?

Overall, the research objective of this research is to study how the changing roles of local governments influence the dynamic regional business systems in the transitional heterogeneous Chinese economy, by combining business systems theory with evolutionary perspectives. The research mainly focuses on institutional economic factors in shaping the role of the state and regional business systems in the Chinese economy. The thesis is organized as follows: Chapters 2 and 3 elaborate on the theoretical and analytical framework and research methodology; Chapter 4 presents the results of the research and outlines the existing regional business systems in the two selected cases of Zhejiang and Yunnan; Chapters 5 and 6 provide a detailed discussion on evolving regional development trajectories and the changing role of local governments in local economic development; and the final chapter answers the research questions by summing up the empirical findings, theoretical implications, and contributions of the research, as well as discussing a new research agenda.

2

Concepts and Analytical Framework

This chapter introduces two theories which aim to explain the evolving development trajectory in emerging and transitional economies: the evolutionary theory, and the comparative system approach, including the Varieties of Capitalism (VoC) and business systems theory. The chapter is structured as follows. Sections 2.1 and 2.2 describe the evolutionary perspective and comparative system approach, respectively. Section 2.3 provides a critical and integrated discussion of the two theories and shows how the theories are applied in this research, as well as describing the analytical framework of the research.

2.1 The evolutionary perspective

Compared to mainstream economic thinking, which tends to have a static outlook and limited focus on economic processes through time, the evolutionary perspective offers a more dynamic approach. One of its key concepts is path dependence. Although the concept of path dependence has also been applied in comparative capitalism analysis (see section 2.2), in this research the evolutionary perspective is applied as it facilitates a better understanding of the evolutionary and institutional structures and configurations in emerging or transitional economies.

2.1.1 The classical path dependence approach

David (1985) first applied the concept of path dependence to understanding the processes of technologies competing for adoption. He emphasized the importance of economic, historical characters in dynamic economic analysis. In his definition:

a path-dependent sequence of economic changes is one of which important influences upon the eventual outcome can be exerted by temporally remote events, including happenings dominated by chance elements rather than systematic forces. (David 1985: 332)

David asserted that path-dependent phenomena are non-ergodic stochastic processes, in which “historical accidents” may exert a long-lasting influence on outcomes (*ibid.*). He adopted the concept to explain the dominance and persistence of the QWERTY keyboard. The QWERTY keyboard was developed in the late 1860s, and since then has held the market lead, even when a rival superior and efficient design, the DSK keyboard, was introduced onto the market (David 1985: 332–333, Martin and Sunley 2006: 399–400). David (1985: 334) highlighted the “accidental” historical events that impelled the development of the QWERTY keyboard, and three features that caused its technological “lock-in”, namely, technical interrelatedness, economies of scale, and quasi-irreversibility of investment. When a technology has been widely adopted and has held a dominant market position since its inception, the benefits associated with the use of the technology are high, making it difficult for customers and manufacturers, as early adopters, to switch to alternative technology due to the high technical conversion cost and users’ habits and skills (David 1985, Martin and Sunley 2006: 401).

Arthur (1989, 1994) integrated the concept of path dependence into a broader theoretical framework. He not only focused on technological path dependence but also explored path-dependent phenomena in economic macrostructures from micro-events and behaviour (Arthur 1989, 1994, also Martin and Sunley 2006: 402). His approach stresses the profound impact of increasing returns on generating path dependence in the economy (Arthur 1989: 126). In the case of increasing returns, apparently insignificant random events become important and magnified by positive feedbacks, which determine economic outcomes and enhance the dominance over competitors (Arthur 1989: 127, 1994: 5).

Increasing returns arise once a technology has been “chosen” by a random economic event. When an early-established technology has acquired a dominant market position, self-reinforcing mechanisms bring benefits to manufacturers and customers, so that the early adopters enforce externalities onto later alternatives that seek to survive in the marketplace, regardless of technological superiority over the early-established technology, which leads to lock-ins (Arthur 1989: 126–127, 1994: 3–4). Specifically, the dominant position facilitates an increase in production, which assists technological improvement as a result of more experience in the manufacturing process; the unit cost is therefore reduced, and output increased (Arthur 1994: 10, 112). Additionally, the prevalence of a particular technology encourages the establishment of compatible systems by other related economic actors (Arthur 1994). Hence, the benefits of self-reinforcement from large set-up or fixed costs, and

learning and coordination effects, attract further adoption of the technology and enhance its dominant market position (Arthur 1994: 10, 112). The four features which generate increasing returns are thus: large set-up or fixed costs, learning effects, coordination effects, and self-reinforcing expectations.

As argued by Arthur (1989: 127, 1994: 1), a negative feedback will lead to “a predictable, stable, single equilibrium” for prices and market shares, while a positive feedback, generated by increasing returns, leads to multiple possible equilibria, so that even the *laissez-faire* market cannot provide superior technology or guarantee alternatives. Arthur (1994: 10) emphasizes that it is also possible to lock into an inefficient inferior path of development, which is difficult to escape due to the self-reinforcing mechanisms. To escape from an inefficient equilibrium depends substantially on the degree of reversibility and transferability of self-reinforcing mechanisms (Arthur 1994: 118): large set-up or fixed costs, as well as learning and coordination effects, are usually not reversible or transferable to the alternative equilibrium (*ibid.*). Consequently, Arthur concludes (*ibid.*), once the path is selected, it is difficult to reposition the self-reinforcing system.

David’s and Arthur’s twin concepts of path dependence and lock-in are considered the fundamental concepts of the evolutionary approach. In summary, a path-dependent phenomenon is a non-ergodic stochastic process, and a random small event may trigger a long-term effect in shaping existing technological, economic, or institutional configurations. The self-reinforcing mechanism, increasing returns, lock-in, and positive feedback will reinforce the stability and fixity of the given path, and only external forces can unlock the lock-in.

2.1.2 Institutional path dependence approach

While a large amount of literature has focused on technological evolution, North (1990) brings the concept of path dependence to institutional change analysis. Institutions are created to reduce uncertainty by establishing “a stable but not necessarily efficient structure” (North 1990: 3-6). North (*ibid.*: 5) argues that institutions and technology determine the total cost of exchange and production, which aggregates into overall economic performance. This implies that the features identified by Arthur are not only relevant to the evolution of technology but can also be applied to institutional change because technology is closely connected to actors and institutions which contribute to the economy (Pierson 2000: 256). According to neoclassical and international trade theory, as well as evolutionary theory, inefficient institutions will be eliminated through competition, so that inferior economic systems will gradually converge towards more efficient, homogeneous and monotonic

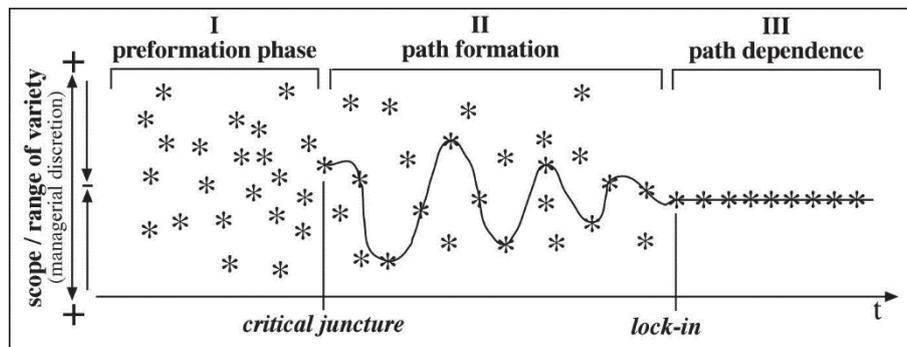
types over time (North 1990: 6–7, 92). However, divergence persists. Hence, the two central puzzles of North’s approach are: what determines the increasing divergence of economic performance between developed and underdeveloped nations over time; and, in stagnant economies, what explains the persistence of inefficient institutional arrangements, as against the expectation of economic and institutional structures or configurations changing to achieve better economic performance (North 1990: 6–7).

Institutions, as “the rules of the game”, create the opportunities which actors or organizations take advantage of (North 1990: 7–8). Institutions and organizations, which are interconnected by formal rules and informal constraints, interact, co-evolve, and change incrementally over time (*ibid.*: 95). In the words of North (*ibid.*: 95), “the interdependent web of an institutional matrix produces increasing returns”. The path of institutional change is shaped by lock-ins, feedback processes, increasing returns, and imperfect markets typified by significant transaction costs, and once a path is selected, “the network externality”, “the learning process”, and “the historically derived subjective models” will reinforce the path (*ibid.*: 7, 99).

If the market is perfectly competitive and efficient, transaction costs will be zero, and complete information and feedback can modify the subjective models made by actors so that no increasing returns occur (*ibid.*: 8–95). However, in the inefficient and incomplete market, where transaction costs are high and increasing returns arise, actors process incomplete information and feedback through a historical, subjective “mental construct”, which leads to divergent and persistent, and not necessarily efficient, lock-ins (*ibid.*: 8–101). This argument implies that “path dependence means history matters” (*ibid.*: 100) and currently existing models are shaped by incremental evolution in the past. Thus, path dependence is a process which “narrows the choice set and links the decision-making through time” (*ibid.*: 98). As the consequence of increasing returns, path dependence can only be altered by exogenous forces or unanticipated consequences of choice (*ibid.*: 94–112).

Sydow, Schreyögg and Koch (2005: 8) portray three stages in the process of path dependence: the preformation phase, the formation phase, and the path dependence phase, as illustrated in Figure 2.1.

Figure 2.1
Constitution of a technological or institutional path - The classical model



Source: Sydow, Schreyögg and Koch (2005: 9)

Phase I comprises an undirected search process through a range of choices; Sydow, Schreyögg and Koch (2005: 9) pinpoint the moment when a particular, irreversible institutional arrangement is selected while multiple alternatives are still available, labelling it a “critical juncture”. In phase II, as described by North (1990: 98), the choice sets are narrowed through time. Once the path has been chosen, increasing returns arise, and the pattern of a particular type of actions or behaviour will be shaped by self-reinforcing mechanisms. The transition from phase II to phase III is through lock-in. Once lock-in occurs, the path takes on a stable, inflexible, and rigid status, and becomes hard to escape.

As the classical model of path dependence does not represent a systematic approach with clearly distinguished types or degrees, or conditions and variables, many scholarly works have defined and explained path-dependent sequences in their own terms. Setterfield asserts that institutions and the economy co-evolve interdependently, with short-run and long-run consequences (Setterfield 1993, 1995, 1997, as cited in Martin and Sunley 2006: 402). He assumes that institutions are exogenous to the economic system in the short run, to reduce uncertainty and guide economic activities, while institutional structures are endogenous to the economic system in the long run. Roe (1996: 667) classifies three degrees of path dependence as weak, semi-strong and strong, while Liebowitz and Margolis (as cited in Martin and Sunley 2006: 405) similarly identify three degrees of path dependence; in these classifications, the strong form of path dependence (for Roe) and the third degree of path dependence (for Liebowitz and Margolis) is inefficient, with full lock-in. However, these classifications are criticized by David (2001, as cited in Martin and Sunley 2006: 405) for employing static criteria, whereas he focuses on three varieties of history: weak, moderate and strong. Page (2006: 113) distinguishes between path-

dependent outcomes and path-dependent equilibria and between path dependence and *phat* dependence.¹

The core concepts of path dependence theory have also been criticized and discussed by scholars. David (1994: 207) endorses North's exposition of the evolutionary nature of institutions and refers to institutions as the "carriers of history". However, in terms of institutions being "self-evidentially 'historical'", he highlights three major conditions: the durability of learned modes of communication, the multiplicity of solutions which generate coordination benefits, and institutional complementarities (David 1994: 217–218). He criticizes North's approach for analysing institutions and organizations as if they are analogous to technological systems, stressing the different ways of solving coordination problems, the different degrees of rigidity in adapting to change and the extent of knowledge for development (*ibid.*: 218–219). Moreover, as many critics have pointed out, if the trend of interpreting path dependence is solely based on the "history matters" argument, all economic or institutional activities and processes are determined by their history, so that the general principle of path dependence will no longer have analytic leverage (Page 2006: 87, Sydow et al. 2009: 690). History does matter, but path dependence does not simply imply "historical determinism or past dependence" (Håkansson and Lundgren, as cited in Martin and Sunley 2006: 402). The past does not determine but rather conditions the actions and decisions of the present. Hence, as Martin and Sunley argue (2006: 402), "the past sets the possibilities, while the present controls what possibility is to be explored".

Furthermore, what creates path dependence is still in dispute. Some scholars assert that path dependence is sensitive to initial conditions which implies that minor initial changes lead to significant outcomes, while others argue that path dependence is not a deterministic system: it is not determined by initial conditions but by the contingent events which follow initial conditions (Page 2006: 91, Vergne and Durand 2010: 741). Scholars also claim that "increasing returns are not necessary or sufficient for path-dependent sequences" (Page 2006: 101–102), but irreversibility of capital (Arrow 2003: 16), any type of negative externality (Page 2006: 101–102), and mechanisms which decrease the attractiveness of alternatives (Vergne and Durand 2010: 752) can all create path dependence. Additionally, as noted above, the concept of lock-in describes the tendencies of economic activities or systems towards potential inefficiency, inflexibility, and rigidity (Arthur 1994: 28). Once lock-in occurs, it is difficult to escape from the stable equilibrium, and only external forces enable the system to escape (David, as cited in Martin and Sunley 2006: 406).

This concept implies that radical change can only derive from outside, which has been criticized by many scholars for neglecting “the endogenously generated change” (Martin and Sunley 2006: 407). Classical path dependence theory emphasizes the durability, stability, inflexibility, and inefficiency of given structures, systems or behaviours trapped in “attractor basin[s]” (David, as cited in Martin and Sunley 2006: 406), but the way the path has been created is seldom discussed. Hence, many scholars provide alternative perspectives for filling this theoretical void.

2.1.3 Path creation approach

Witt (1997: 771) criticizes David’s and Arthur’s concept of lock-in and argues that in reality, innovation and new variants do not cease due to lock-in. He claims that once the “critical mass” of potential adopters of incumbent technology is exceeded, adopters will strategically turn to new variants because the technological or industrial improvement resulting from innovation ought to deliver economic advantages (ibid.: 768). Therefore, the status of lock-in may lead to a point of discontinuity of the incumbent path, as actors spontaneously look for profitable opportunities once the critical mass has been reached.

Kemp et al. (2001: 269–278) discuss methods to construct transition paths through strategic niche management (SNM) — involving creation, development, and breakdown — and suggest three options for shifting to an alternative regime without causing losses during the transition. The first is to “change the structure of incentives and let market forces play ... tax negative externalities and reward positive externalities” (ibid.: 279). The second is “to plan for the creation and building of a new sociotechnical system based on an alternative set of technologies” (ibid.: 279). The last strategy is to “build on the ongoing dynamics of sociotechnical change and to exert pressures so as to modulate ... change into desirable directions” (ibid.: 280). Although, as Kemp and his colleagues admit (ibid.: 296), their approach cannot address complex questions and cannot guarantee that the shift is achieved, they do provide a starting point of path construction.

As the path dependence perspective emphasizes the significant role of random historical events in the development of novelty, Garud and Karnøe (2001: 2–6) introduce Schumpeter’s (1942) concept of creative destruction into their approach and offer an alternative perspective for understanding the emergence of novelty, namely path creation. Schumpeter (1942) argues that any system is designed to be efficient at every given point of time, but in the long run, the system will be inefficient (Schumpeter and Swedberg 1994: 83, Garud and Karnøe 2001: 6). Hence, creative destruction describes a process of industrial mutation, which “incessantly

revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one” (Schumpeter and Swedberg 1994: 83). The process of mutation requires refinement of inefficient structures. By using this concept, Garud and Karnøe (2001: 2–6) claim that entrepreneurs, embedded in economic and institutional structures, are knowledgeable agents with the capability and willingness to shape the emerging novelty. Entrepreneurs may actively and intentionally deviate from the existing structures in order to create new futures regardless of current inefficiencies (*ibid.*: 6). Thus, as entrepreneurs are fully aware of the path they create, mindful deviation is at the core of the path creation concept (*ibid.*: 6). Garud and Karnøe (*ibid.*: 8) criticize the concept of path dependence for overemphasizing the impact of the past; path-dependent phenomena are viewed as outsiders with the underlying logic of consequentiality (March, as cited in Garud and Karnøe 2001: 8). Thus, the outsider perspective disregards the initiatives of agents in creating new paths. In contrast, with the underlying logic of mindful deviation, entrepreneurs in the path creation approach are considered both as insiders who have knowledge and understanding of how to escape from the existing structures, and also as outsiders who evaluate how much they can deviate from those structures (Garud and Karnøe 2001: 9).

Overall, the path creation perspective highlights the deliberate, not necessarily exogenous, actions involved in shaping or unlocking the path. Hence, the core concept of mindful deviation provides a way to understand how entrepreneurs disembed from existing structures and form new futures.

2.1.4 Path constitution approach

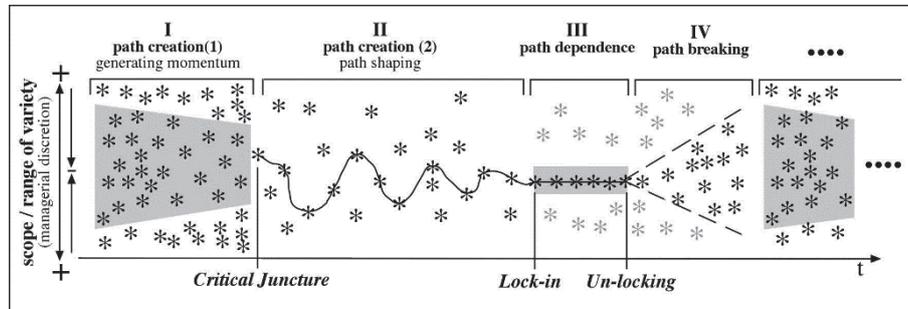
As discussed by Meyer and Schubert (2007: 27–28), many aspects of path creation still need further clarification, for example, how would the path develop after being created by actors or how can path dependence and path creation integrate as a general path process? Sydow, Windeler et al. (2005: 3–4), based on the path dependence and path creation approach, conceptualize and develop the typology of path constitution, in which they extend the classical model and also stress the crucial role of actors in constituting new paths. The concept of path constitution can therefore be seen as a mixture of two perspectives.

Path dependence (completely unplanned process) and path creation (controlled process) represent two ends of a continuum, and in between the two extremes, actors do not completely control the development of the path, due to resource

constraints (Meyer and Schubert 2007: 29). Even in the pure emergent processes, actors will estimate their chances of success in changing or impacting on the existing path (*ibid.*). The path constitution approach identifies three stages of path development — generation, continuation, and termination — and also distinguishes between mindfulness and emergence in the formation of path processes (Sydow, Windeler et al. 2005: 4). In the phase of path generation, path emergence occurs in an undirected manner, while path creation is a mindful process in which actors intentionally pursue a particular goal (*ibid.*: 5). In the phase of path continuation, once a path has been selected, the increasing returns will force an “uncontrolled continuation”, termed path persistence, while actors will actively maintain the path, named path extension (*ibid.*: 6). In the last phase, path termination, the emergent path can be unintentionally dissolved, while the mindfully created path can be brought to a deliberate end by actors, known as path deviation (*ibid.*: 7).

As economic and institutional structures and systems are evolving processes and continuously reproduced by actors, Sydow, Schreyögg and Koch (2005: 31–32) modify and extend the model of path constitution as shown in Figure 2.2 below. They identify four stages in the ongoing process of path constitution: generating momentum, path shaping, path dependence, and path breaking (*ibid.*: 32). In phase I, both random emergence and deliberate creation exist, and the critical juncture is marked at the start of phase II, where the decision has been made. Due to the path-shaping activities, the chosen path extends or persists into a lock-in phase. As emphasized by Sydow, Schreyögg and Koch (*ibid.*: 22), based on the path creation perspective, “paths result from human activities, ... where alternative ways of actions were always at hand”. Hence, besides the external shock, the endogenous power of humans will always play a significant role in unlocking paths. With external or internal intervention, the given patterns will be disrupted (path breaking) for further developments of paths.

Figure 2.2
Breaking and creating paths



Source: Sydow, Schreyögg and Koch (2005: 32)

Overall, the path creation perspective emphasizes mindful deviation in shaping or unlocking the path, which challenges the path dependence perspective on the concept of lock-in. Additionally, the path constitution approach integrates deliberate creation and unplanned emergence in ongoing path processes. Both “chance events” and “human will” are important in forming a path, and both endogenous and exogenous forces can dis-embed the trapped path from the existing structure for new futures.

2.1.5 The regional path dependence approach

The concepts of path dependence and lock-in have been widely applied in understanding regional development in the perspectives of both qualitative and quantitative change. From the perspective of evolutionary economic geography, “an ontology of regional development is rooted in the idea of path-dependent economic evolution.” (Scott 2006, as cited in Martin 2010: 2). This receptivity to the concept of path dependence is no surprise, given that theories such as circular cumulative causation, by Gunnar Myrdal, and the vicious circle of poverty, by Ragnar Nurkse, have affinity with the “history matters” argument. Besides, as many scholars have argued, regional development largely relies on the capacity to establish or import new industries to maintain growth or offset decline (Neffke et al. 2011: 238). Hence, creative destruction can be viewed as the major force in the unending process of regional development (Schumpeter, as cited in Neffke et al. 2011: 238). In short, many economic geographers see path dependence as the core concept in their analysis.

Grabher (1993a) first brings the concept of path dependence to his case study of the failures of the Ruhr industrial region. He identifies a threefold lock-in of

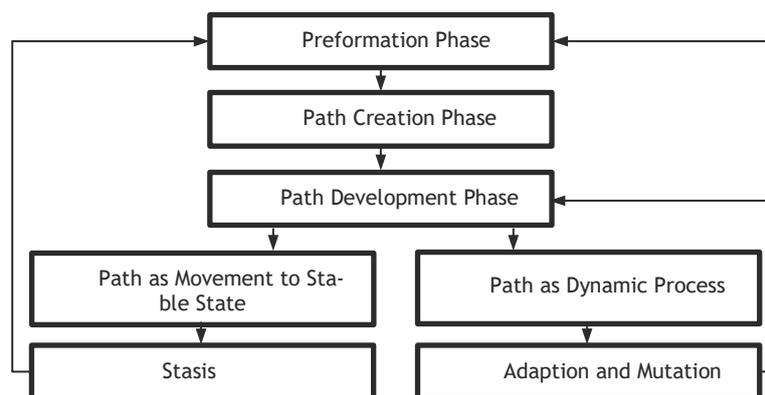
regional development, comprising functional, cognitive, and political lock-in (Grabher 1993a: 260–264). In functional lock-in, *in order* to maintain and facilitate inter-firm cooperation and reduce transaction costs, a long-term stable and close linkage would be established between regional core firms and their supplier sectors (ibid.: 260–261). However, the continuity of inter-firm relations usually results in shortcomings, named boundary-spanning functions, which (a) tempt suppliers to largely cut their investment in R&D activities or the development of new products; and (b) make personal connections more significant than distribution departments in suppliers (ibid.). Hence, according to Grabher (ibid.: 261), the common interest in maintaining long-term inter-firm relations locks the regional core firms and the suppliers into a relatively close circle of exchange relations, which causes the functional shortcomings. Second, the “functional lock-in” process is reinforced by a “cognitive lock-in”. Grabher emphasizes that the strong personal connections that are significant in maintaining the continuity of inter-firm relations result in a common orientation and groupthink between regional core firms and suppliers (ibid.: 262–263). The common interests and orientation, as well as groupthink, may become serious impediments to reorganizing existing inefficient industrial structures and configurations, especially when a relatively large investment in equipment, technology, or facilities is involved (ibid.: 263). Consequently, functional lock-in and cognitive lock-in will cause technological lock-in, in which firms are reluctant to leave the current technological trajectory, hindering regional economic development (ibid.: 263). Third, political lock-in describes the situation in which highly developed formal and informal cooperative relations between local industry and local governments mean that the leading position of core industries goes unchallenged, leading, for example, to blocking the siting, arrival, or emergence of new industries in order to protect existing core industries (ibid.: 263–264). Hence, the shortcomings of the strong alliance prevent reorganization and innovation (ibid.: 264). By applying the threefold lock-in in investigating the case of the Ruhr, Grabher (ibid.: 275) concluded that the decline of economic growth is due to the pre-perestroika consensus culture. Since then, the path-dependent approach has been widely applied in economic geography.

Martin and Sunley (2006) employ the path dependence model in understanding evolutionary regional configuration and institutional development. They define regional path dependency as a locally contingent and emergent “place dependent” process, which is shaped by regional factors and conditions inherited from previous institutional structures and configurations as well as the path and patterns of regional economic development (Martin and Sunley 2006: 409, Martin 2010: 20). In

the classical model the concept of lock-in has been interpreted as a negative and inefficient state; however, Martin and Sunley (2006: 415) argue that the evolutionary regional economy is in an ongoing process which transforms from a positive lock-in to a negative lock-in. In the early phase, increasing returns and positive externalities have a positive influence on regional economic development, but the institutional structures or configurations adopted may eventually lose their competitive advantages, and in the self-reinforcing process the increasing rigidity and inflexibility will gradually impinge on regional economic growth, heralding the negative lock-in phase (ibid.: 415–416). Moreover, they emphasize that external shock may not always be sufficient to free regions from negative path dependence, especially in the case of interregional competition which may force entities to take a defensive position instead of searching for and adopting a new path (ibid.: 417).

Martin (2010: 21) provides an alternative path dependence model of local industrial evolution as shown in Figure 2.3 below. He describes two types of path: the standard canonical path dependence model and the path which allows endogenous change and evolution. In the former model, the path gradually converges to a stable, inflexible, and inefficient stasis, which substantially hinders the possibility of shifts in new local industrial paths. The latter type is more open and shows a higher level of flexibility in adapting or evolving local industries or technologies. In reality, the adaptability of innovation may decline over time and the more dynamic type of path eventually converge towards the former type; however, Martin (ibid.: 21–22) shows the potential for path dependence to adapt and mutate as a dynamic process.

Figure 2.3
An alternative path dependence model of local industrial evolution



Source: Martin (2010: 21)

Notably, recent studies on path dependence and regional economic development have substantially extended the evolutionary framework. The broad categories of new industrial path development have been elaborated, namely: (a) path extension: the continuation of an existing industrial and technological path with incremental product and process of innovation, but facing a risk of path exhaustion in the long term; (b) path renewal: the transformation to different but possibly related activities and sectors (Isaksen and Trippel 2016: 68–70); (c) path upgrading, consisting of three phases: the enhancement of position within global production networks; renewal of the path into a new direction; niche development; (d) path branching: the diversification into a new related industry with knowledge of existing industries; (e) path importation: the establishment of an industry which is new to the region; (f) path diversification: the diversification into a new related industry based on unrelated knowledge; (g) path creation: the emergence of entirely new industries and sectors, or the adoption of new technology or new forms of organization (Isaksen and Trippel 2016: 68–70, Isaksen et al., as cited in Grillitsch et al. 2018: 265–266, Asheim 2019). Asheim et al. (2017: 13–14) focus on the role of clusters as a tool, not only for promoting and extending the existing path but also for achieving path renewal and path creation when a wider regional development strategy is provided. Grillitsch and Sotarauta (2018: 7–12) emphasize the importance of opportunity spaces (future opportunities) embedded in existing industrial compositions in shaping the regional growth path, arguing that this explains why some regions grow faster than other regions with similar preconditions. Frenken et al. (2007: 687) introduced the concept of “the related variety” to understand the distinction between the different compositions of sectors in creating spillovers. The empirical evidence shows that the related variety is positively associated with regional economic growth (Frenken et al. 2007). Asheim (2019) studies the dynamic perspective on the regional innovation system in promoting local economic growth and new path development.

Overall, the concepts of path dependence have been introduced and developed as essential elements in economic geography and regional studies to understand regional economic development. Although the concepts have been widely applied and extended, the evolutionary perspectives are criticized (a) for being too focused on the micro level of economic agents (firms and organizations) and neglecting macro-level forces, especially the role of the state (Morgan 2013); and (b) for their treatment of institutions as static entities (Boschma and Martin 2010, 26). Morgan (2013) emphasizes the state’s role in creating novelty and shaping the economic landscape in old industrial regions. Pike et al. (as cited in Morgan 2013) suggest that,

“the evolutionary perspective can be enriched by connecting economic, social, cultural, ecological, and political concerns”. It is undeniable that more and more researchers (see Grabher 2009, Pike et al. 2009, Boschma and Martin 2010, Morgan 2013) are bringing the dynamic macro perspectives on institutions into the framework of evolutionary economic geography and linking micro-level behaviour to macro-level forces (Boschma and Martin 2010, 26). However, the role of the state is still largely neglected in the firm-led evolutionary perspectives. Hence, this research aims to study the changing roles of the state over time in dynamic regional business systems by connecting evolutionary perspectives and business systems theory.

2.2 The comparative system theory

2.2.1 The development of comparative system theory

After the collapse of Soviet bloc economies from the late 1980s onwards, the transitional economies in Eastern Europe underwent a series of radical institutional, structural, and regulatory changes. At the same time, the growing interdependence within the global economy and increasing interregional factor mobility diminished the constraints of national boundaries (Jackson and Deeg 2006: 5). Under these circumstances, capitalism, exemplified by the US model, appeared to be the only alternative for the transitional and emerging economies (Crouch 2005: 2), which sparked heated debates on typologies of economies and mechanisms of development. Scholars attempted to figure out: (a) is the US model the “best practice” for the transition and emerging economies; (b) will the economic system converge on a homogeneous and monotonic type, or will capitalism split into different variants and forms; (c) will any models be able to maintain steady growth, or which model will deliver better economic performance (Crouch 2005: 2, Jackson and Deeg 2006: 5)?

The comparative system approach focuses on differentiating the various types of capitalism and comprehensively understanding the interrelationships and behaviour of actors embedded in different institutional and economic configurations. Comparative capitalism research has a long history of distinguishing and identifying diverse types of economic model, dating back to Polanyi and Shonfield (Nölke and Claar 2013: 34). As discussed by Stiglitz (2001) and Block (2001), Polanyi’s work can be considered the forerunner of a systematic approach, in which he emphasized

the concept of embeddedness of the economy and the interrelatedness of actors, institutions, and self-regulating mechanisms in a market society. They argue that Polanyi stressed the significant active role of the state in planning, adjusting, and managing, even in a *laissez-faire* economy. Unlike neoliberalism, Polanyi argued that the movement toward a self-regulating *laissez-faire* economy needs a protective countermovement to reduce uncertainty and create stability and predictability, leading to the argument that this “double movement” allows the market to be embedded in various types of economy (Polanyi 1944, as cited in Block 2001, Stiglitz 2001).

Shonfield compared the strategic capability of actors like banks and the state among Western developed economies with diverse institutional structures and economic models, and identified three ideal types of capitalism: Britain’s liberalism, Germany’s corporatism, and France’s statism (Shonfield 1965, as cited in Bowman 1967, Jackson and Deeg 2006, Schmidt 2016: 3). He observed the positive correlation of the central planning mechanism with better economic performance and steady growth rate (Shonfield, as cited in Bowman 1967, Jackson and Deeg 2006). Hence, the modernization approach of Shonfield also highlights the active role for state intervention in the economy (as cited in Jackson and Deeg 2006).

In the decades since Shonfield, the comparative capitalism approach has been substantially enlarged by bringing concepts such as neo-corporatism, game theory, the social systems of production, and the historical approach into comparative studies (Hall and Soskice 2001). Scholars attempt to categorize and label the various type of capitalism by identifying the distinctive financial, economic, institutional, structural, managerial, etc. features and patterns in developed countries. For instance, Chandler discussed competitive managerial capitalism (Chandler 1977, as cited in Whitley 1999: 3), while Zysman studied the financial systems in developed economies and distinguished between the capital-market based model (US and UK), credit-based models with government-administered prices in France and Japan, and those with private financial institution-administered prices in Germany (Zysman 1983, as cited in Schmidt 2016: 3). Lazonick identified three types of capitalism based on the level of integration of economic activities and innovation-based strategies: proprietary capitalism (UK), managerial capitalism (US), and collective capitalism (Japan) (Lazonick 1991, as cited in Whitley 1999: 7–8).

As previously mentioned, the breakup of the Soviet bloc and increasing globalization suggested a converging trend towards a single neoliberalism and the retreat of state intervention. However, scholars in comparative political economy challenged the monism of the convergent neoclassical theory, and the dualistic comparative capitalism approach rose to prominence. The original binary identification of

capitalism was made by Albert, who identified two types of capitalism and labelled them Anglo-Saxon and Rheinisch (Albert 1991, as cited in Crouch 2005: 27). The former type refers to nations in which free-market capitalism is embedded, such as the UK and US, while forms of collectivism are found in the latter type of capitalism, exemplified by Germany, the Netherlands, Switzerland, Scandinavian countries, and Japan (Crouch 2005: 27). However, as Crouch (*ibid.*) argues, Albert ignored the different forms of collectivism; Crouch also queries the classification of France, Scandinavian countries, and Japan as Rheinisch.

Scholars have thus made a significant contribution to uncovering the economic, institutional, managerial, and structural similarities and differences among post-war developed economies and have substantially expanded the comparative capitalism approach. However, Hall and Soskice (2001: 4) are critical of earlier approaches, arguing that the role of government intervention has been overemphasized in the modernization approach, while the role of firms and employer associations in coordination and the impact of regional and sectoral institutions over firm behaviour have been neglected in comparative capitalism. Hall and Soskice (2001: 4–5) therefore seek to create a new approach by placing the firm at the centre of analysis based on a game-theoretic perspective and emphasizing the strategic interactions between actors. They have formulated the varieties of capitalism approach, which extends comparative political economics and achieves the most significant breakthrough in the dualist approach.

2.2.2 The varieties of capitalism approach

The VoC approach stresses the central role of the firm in economic and institutional adjustment and indicates that the firm's activities aggregate into national economic performance (Hall and Soskice 2001: 6, Hall and Gingerich 2004: 7). The aggregate economic performance therefore depends substantially on the ability of firms to develop relationships with other actors and also relies on the quality of firms coordinating those internal and external relationships (Hall and Soskice 2001: 6, Hall and Thelen 2009: 8). Economic actors are relational, embedded in a particular economic and institutional arrangement. Hence, on the one hand, actors, especially firms, take advantage of institutions and solve coordination problems through strategic interaction with other actors; and on the other hand, the economic system provides firms and other actors with institutional support, but simultaneously constrains the strategies of actors through the existing economic and institutional environment (Hall and Soskice 2001: 6, Hall and Thelen 2009: 10). The VoC approach

focuses on identifying national diversity by recognizing the distinct ways that firms solve coordination problems in five spheres: industrial relations, vocational training and education, corporate governance, inter-firm relations, and employees (Hall and Soskice 2001: 7).

Based on the different responses of firms to coordination problems, Hall and Soskice (ibid.: 19) categorize two ideal types: liberal market economies (LMEs) and coordinated market economies (CMEs). The various economic and institutional configurations in different countries tend to cluster around these two poles.

The LMEs are exemplified by the US, UK, Australia, Canada, New Zealand, and Ireland, while the CMEs are typified by Germany, Japan, Switzerland, the Netherlands, Belgium, and Scandinavian countries (ibid.: 19). In LMEs, firms solve coordination problems mainly through hierarchies and competitive market arrangements, which are characterized by highly fluid markets, price-sensitive mass production, arms-length and short-term relations, formal contracting, less powerful trade unions, rapid technology transfer, and radical innovation. In CMEs, by contrast, firms coordinate their activities via non-market modes of strategic coordination, which feature dense networks relying on private information, collaboration and “patient capital”, quality-oriented flexible specialization, long-term relations, relational or incomplete contracting, strong trade unions, gradual diffusion of technology, and incremental innovation (Hall and Soskice 2001: 8–36, Hall and Gingerich 2004: 7–8, Peck and Zhang 2013: 359–361).

The fundamental concept of VoC: Institutional complementarities

Both LMEs and CMEs are characterized by a high level of institutional and systemic coherence, which reveals the fundamental concept of the VoC approach: institutional complementarities. As Hall and Soskice (2001: 6) stress, firms are relational, which means they are functionally interdependent and interactive with other actors and are simultaneously supported and constrained by existing institutional arrangements and environments. Within a country or a region, a particular type of coordination and set of institutions in one sphere will substantially influence the institutional practices of other spheres and will tend to enhance the economic returns to that particular institutional and economic system (Jackson and Deeg 2006: 12, Peck and Zhang 2013: 362, Hall 2015: 4).

On the one hand, the concept of institutional complementarities implies that the internal and external complementarities between firms and other actors in different domains are not randomly distributed, but gravitate towards a corresponding type of coordination under the isomorphic power of institutions (Jackson and Deeg

2006: 2, Carney et al. 2009: 364–368). Hence, due to the mutual benefits of interaction and the uncertainties of change, firms and other actors in a particular economic and institutional arrangement may be reluctant to deviate from the existing pattern in one sphere without the corresponding changes in other spheres (Hall and Thelen 2009: 10–12, Hall 2015: 4). The high level of institutional complementarities and the uncertainty of change therefore reinforce the consistency and stability of existing economic and institutional patterns and configurations, which enhances the differences between LMEs and CMEs with distinctive comparative advantages. Thus, the isomorphism of a high level of coordination results in the resistance to convergence of economic and institutional configurations.

On the other hand, the VoC approach indicates that neither ideal type of capitalism is superior to the other, and both LMEs and CMEs are capable of maintaining a long-run exceptional economic performance (Hall and Soskice 2001: 21). This claim has been proved by empirical evidence that the presence of higher levels of market or strategic coordination — meaning higher levels of institutional complementarities and coherence in an economy — leads to higher and sustainable economic growth rates (Hall and Gingerich 2004: 28). This implies that the more closely a nation or a region's economic and institution configurations resemble “pure” LMEs or CMEs, the better economic performance it will achieve (Campbell and Pedersen 2007: 311). In contrast, a nation or region with a low level of institutional complementarities is regarded as having a less cohesive system, which is assumed will lead to underperformance compared to more cohesive “pure” cases (Hall and Soskice 2001: 45, Campbell and Pedersen 2007: 311). Institutions in the less cohesive system may contradict each other, making the institutional environment incapable of providing sustainable and stable support and enhancing mutual economic returns. Hence, the VoC approach suggests that nations clustered around the two poles outperform nations with hybrid or mixed types that occupy the space in between.

However, Campbell and Pedersen challenge this deduction. They examine the economic and institutional arrangements in Denmark and claim that to locate Denmark in the group of CMEs is misleading due to its market-oriented decentralization in the spheres of labour markets, vocational training, and industrial policy (Campbell and Pedersen 2007: 307–324). Instead, they categorize the Danish system as a hybrid type of capitalism. However, and in contrast to the assertions of the VoC approach, the Danish system has been infused with hybrid features from both LMEs and CMEs, which provides the system with institutional flexibility in

adapting to the global economy (Wilthagen and Tros, as cited in Campbell and Pedersen 2007: 318). Campbell and Pedersen (2007: 324) argue that the additional flexibility of complementarities in the hybrid Danish economy has improved the country's economic performance, which challenges the assertion of the VoC approach on the inferior economic performance of hybrid and mixed types of capitalism (ibid.: 307). In short, the case of Denmark proves that hybrid types are capable of performing as well as pure types.

Overall, the classical VoC approach emphasizes isomorphic power in a cohesive system. The higher the level of institutional complementarities present among institutions across different domains, either in LMEs or CMEs, the more successfully economic growth can be achieved and sustained. The mutual reinforcement of interconnection between institutions and patterns of behaviour lead to a long-standing "equilibrium" status, which implies that the VoC approach embraces a relatively static dual model characterized by strong path dependence.

Extensions of the VoC approach

As a dualistic comparative capitalism approach mainly focused on developed economies, the VoC approach has been criticized for its oversimplified typologies and for ignoring the transitional, developing, and emerging economies in many parts of the world, whose economic and institutional arrangements are more complex than the dual model. Scholars assert that there are far more types of capitalism present in economies which have not been covered by the VoC approach. This has resulted in a substantial amount of literature extending the VOC's dichotomous approach.

Hierarchical market economy

Schneider (2009: 553) identifies the distinctive features of capitalism in Latin America and develops a "hierarchical market economy" (HME) model characterized by diversified business groups, multinational corporations (MNCs), low-skilled labour, and atomistic labour relations. Schneider (ibid.: 556–557) argues that in Latin American economies, market or strategic coordination in the core institutional domains are often replaced by hierarchies so that HMEs should not be considered simply as hybrid or mixed cases.

The dominant corporate forms in Latin American countries are business groups and MNCs, which play a dominant role in both the market and the overall economy (ibid.: 555–560). Many large business groups are family-owned and controlled, and highly diversified, and other large private firms are mostly subsidiaries under the

direct hierarchical control of MNCs (ibid.: 555). Both business groups and MNCs are governed through highly hierarchical structures and also establish unequal hierarchical relationships in inter-firm coordination, financing, and investment, technology transfer and markets, while market or strategic coordination are less influential in HMEs (Schneider 2009: 559–560, Nölke and Claar 2013: 38–39). Moreover, Schneider (2009: 565) emphasizes that the high-tech MNCs and state intervention compel the domestic business groups to invest in low-tech sectors. Labour relations are typified by short-term contracts, high turnover rate, absence of labour unions, and weak legal protections (ibid.: 561–562). Latin America also has relatively low levels of education, but firms are reluctant to provide vocational training due to the fear of poaching (ibid.: 564–568). Overall, the hierarchical coordination structure and low-skill trap cause strong negative complementarities among institutions, which characterize the Latin American economy.

Consequently, as Schneider (ibid.: 569–571) asserts, the state and business elites infuse and shape the hierarchical economic and institutional arrangements, and state intervention reinforces the core features of HMEs. The hierarchical coordination leads to strong path dependence and long-term negative and inefficient institutional complementarities in Latin American economies, which prevents them from moving towards LME or CME forms, and underpins the stickiness of existing economic and institutional configurations (ibid.: 569).

Dependent market economy

After the collapse of Soviet bloc economies, the transitional economies in Eastern Central Europe (ECE) have undergone a series of radical changes. Most literature attempts to categorize ECE capitalism as a hybrid case (Nölke and Claar 2013: 39). However, Nölke and Vliegenthart (2009: 672) claim that the emerging forms of ECE capitalism do not fit the model of either LMEs or CMEs; rather, they develop a “dependent market economy” (DME) model. In transitional economies, foreign direct investment (FDI) and transnational companies (TNCs) were welcomed to stimulate the economy during the ongoing process of economic restructuring (Nölke and Vliegenthart 2009: 677–678, Nölke and Claar 2013: 39–40). Hence, the state economies in ECE rely heavily on FDI and TNCs, and the DME model is characterized by hierarchical coordination (Nölke and Vliegenthart 2009: 672–678).

Given this heavy dependence of domestic firms on foreign finance, TNCs have penetrated deeply into ECE economies, with large domestic firms and small and

medium enterprises (SMEs) becoming local subsidiaries (Nölke and Vliegenthart 2009: 681–684). The Western-based headquarters of TNCs exercise direct, close, and hierarchical control over the budgets and management decisions of local subsidiaries (ibid.: 683). The industrial relations in DMEs are typified by the weak position of labour, appeasement of skilled workers, and company-level agreements (ibid.: 684–685). In addition, in the DME model, TNCs are reluctant to invest in vocational training and — to avoid the risk of running into intellectual property rights problems — innovation and R&D activities are carried out at TNC headquarters and transferred within TNC hierarchies (ibid.: 687–691)

In sum, as Nölke and Vliegenthart (ibid.: 694) argue, in ECE economies, market or strategic mechanisms in the core institutional domains are often replaced by hierarchical mechanisms between TNC headquarters and local subsidiaries, so that DMEs should not be categorized as LMEs, CMEs, or as hybrid types. Although the economies in ECE have had reasonable success in past years, Nölke and Claar (2013: 40) see a bleak future for their long-term economic performance.

State-influenced market economies

France, Italy, and Spain have been excluded from the pure LME–CME dichotomy and have often been categorized with other countries such as Portugal, Greece, and East Asian economies like South Korea and Taiwan, as “mid-spectrum economies” or “mixed market economies” (Schmidt 2012: 157–158). The similarity between these economies is the active and dominant role of the state in coordinating economic activities, which is described by the terms “state capitalism” and “developmental state” (Schmidt, Weiss, as cited in Schmidt 2012: 158). However, as the state may act in either a positive way (as in the French and Spanish cases) or a negative way (as in the Italian case), Schmidt (2012: 156–158) develops a separate model, the “state-influenced market economy” (SIME) model, characterized by the significant impact of state intervention on forming strong hierarchical interactions between actors and institutions. In SIMEs, firms have self-determination in corporate governance including business strategies, investment, wage bargaining (in France), etc., while domains such as market rules and regulations, wage bargaining (in Spain and Italy) are state-led (Schmidt 2012: 158). More importantly, Schmidt (ibid.: 160) points out that institutional path dependencies are overemphasized, which makes it difficult to analyse institutional changes using the VoC approach. Schmidt (ibid.: 160–161) therefore adopts a dynamic perspective and argues that although France, Italy, and Spain are all labelled as SIMEs, the distinctive roles of the state in shaping market regulations and social systems have changed significantly over time. Schmidt

examines the historical (since the 1970s) and existing political economic institutions and policies, as well as the economic performances during the economic crisis, in these three SIMEs. She concludes that the state plays a crucial role in SIMEs and that business and labour rely on the state to solve coordination problems (ibid.: 182). More specifically, business in SIMEs is more autonomous and network-oriented, and labour is more dependent on the state, than in LMEs or CMEs (ibid.).

Asian capitalism

Asian economies have been a success story of the world economy since the 1950s, represented by post-war Japan and four Asian Dragons, and their models have served as an example to other emerging or transitional Asian economies. The dynamic of Asian economies has sparked a debate on identifying Asian capitalism, especially after the financial crisis. The emerging literature applies the VoC approach to examine Asian capitalism. As we know, the VoC approach is a firm-centred theory, which analyses the coordination problem of homogeneous or single emblematic firms (Boyer, as cited in Carney et al. 2009: 367). However, while family-controlled business groups occupy a dominant position in Asian economies, large heterogeneous corporate forms can also be observed there, including specialist firms, government-linked firms, technology-intensive firms, dragon multinationals (Carney et al. 2009: 366). Asian capitalism studies have often been criticized for oversimplifying, stereotyping, and failing to clearly define Asian capitalism (Carney et al. 2009: 367).

Carney et al. (ibid.: 369–375) develop a bi-directional co-evolutionary theory to investigate the complex institutional dynamics in Asian economies by exploring the impact of changing institutional processes on firms' behaviour, and the reverse influence of firm strategies on shaping institutional structure. Business group organizations largely characterize Asian capitalism, which establishes internal quasi-markets to ease market failures and remedy the absence of formal institutions (ibid.: 369). On the one hand, the dominant business groups provide an efficient and sustainable internal market for actors and enhance economic returns (ibid.: 369–370). However, on the other hand, the stable and sustained equilibrium brought by business groups hinders the establishment and development of the external market and the liquidity of capital (ibid.: 369–370). The dominant position of business groups results in a high level of stickiness of existing institutional arrangements, which are resistant to institutional change, and the persistence of institutional configurations.

Hence, Asian capitalism has been labelled oligarchic capitalism (Baumol et al., as cited in Carney et al. 2009: 370).

The co-evolutionary theory also emphasizes institutional escape through bricolage, referring to escape from a disagreeable regulatory or institutional environment by the dis-embedding of existing institutional arrangements, as exemplified by the business strategies of ethnic Chinese-owned firms in Southeast Asian economies (Carney et al. 2009: 371–372). Yeung argues that ethnic Chinese-owned firms disentangle themselves from the uncongenial environment by, for example, the adoption of new managerial systems and technology, internationalization of firms, etc. (Yeung, as cited in Carney et al. 2009: 371–372). Hence, Asian capitalism has been defined as hybrid, typified by institutional bricolage or recombination (Yeung, Crouch, as cited in Carney et al. 2009: 372).

Chinese capitalism

Scholars also attempt to categorize Chinese capitalism using the VoC framework, resulting in a range of conclusions, such as “looks more like a LME than a CME”, “functional capitalism”, “laissez-faire capitalism”, “rampant state-dominated, welfare-lite capitalism”, “state capitalism”, “organized capitalism” (Arrighi, Meyer, Witt, Fligstein and Zhang, as cited in Peck and Zhang 2013: 358–359). Peck and Zhang (2013: 364–365) sketch Chinese capitalism based on VoC indicators and observe a quasi-CME model with a family and kinship tie (*guanxi*) in coordination, especially among private enterprises, which shows the difficulty of fitting the Chinese case into the existing VoC formulations.

Peck and Zhang (ibid.: 360) adopt a variegated capitalism approach to categorize the contradictory tendencies of the heterogeneous Chinese developmental pattern. They offer divergent interpretations of the Chinese economy in three themes: market socialism or state capitalism, socialist-developmental or neoliberal state, and *guanxi* transnationalism or power-elite (ibid.: 367). They stress the determining role of the state in steering the developmental trajectory which gradually and unevenly integrates with global capitalism, and claim that the Chinese model is closer to state capitalism (ibid.: 373). By investigating the economic reform since the early 1980s, Peck and Zhang conclude (ibid.: 380) that Chinese capitalism is a combination of contradictory forms, and neither socialist-developmental nor neoliberal state can represent the Chinese case due to the continual oscillation between market-led and state-led development, with little functional coherence. As well as the power-elite capitalism rooted in the top-down cadre management system, they emphasize the distinctive essence of Chinese relationality: the *guanxi* capitalism, characterized by

weak formal institutions and institutional uncertainty, allowing networks to fill the institutional voids, as Carney et al. (2009) argued (Peck and Zhang 2013: 382–384). In sum, the ongoing process of transition from a planned economy to a market-oriented economy in China is resulting in long-term institutional contradictions rather than institutional coherence. The complexity, variation, and heterogeneity of the Chinese economy become problematic in terms of categorizing Chinese economic and institutional systems within existing comparative capitalism formulations; rather, China has developed an indigenous and variegated capitalism (Peck and Zhang 2013).

It is thus clear that scholars identify far more than two types of capitalism in transitional and emerging economies in Eastern Europe, Latin America, and Asia, greatly extending Hall and Soskice's original dichotomous typology. This expansion of the comparative capitalism approach helps to fill the gaps in the oversimplified dualist framework by analysing more sophisticated, varied, and heterogeneous cases.

Bringing the state back into the analysis

The VoC approach of Hall and Soskice is a firm-centred theory, which stresses the central role of the firm in the coordination of internal and external relationships and economic and institutional adjustments, but which does not theorize the influential role of the state in shaping economic and institutional configurations. However, the state-led model has a long history in the comparative capitalism approach. The works of Polanyi and Shonfield highlight the impact of state intervention on the economy, but with the collapse of the Soviet bloc and increasing global integration, the state-led model has receded due to the apparent convergent trend towards neoliberalism (Schmidt 2012: 158). Although scholars of comparative capitalism have challenged the view of the monism of neoliberalism by identifying various forms of capitalism, represented by the expanded VoC approach, the state-led model cannot accommodate either the LME–CME dichotomy or the firm-based extension of the VoC approach.

However, as highlighted by Schmidt (2012: 158), the state continues to play a crucial role, albeit in a less direct manner. Hence, an increasing body of literature focuses on identifying various state-led models, such as “state-led capitalism”, “state-driven capitalism”, “post-dirigiste”, “entrepreneurial state”, “public neo-capitalism”, SIMEs, etc. (Coates, Boyer, Levy, Thiberghien, Barca, Schmidt, as cited in Schmidt 2012: 159). These state-led models, built on the VoC approach, are mostly case-based, which considerably limits their generalizability to other economies.

However, by using a sociological framework, Richard Whitley has filled the theoretical voids and developed a systematic approach known as “business systems theory” to measure regional or national capitalist diversity in his own terms, in which some core dimensions are similar to those in the VoC approach while other dimensions of institutional features and environments are adapted from business systems comparative research.

2.2.3 Business systems theory

Like other scholars in comparative political economy, Whitley (1999: 3) criticizes the assumption of growing convergence to a single type of economy, which he believes to be improbable, and stresses instead the substantial variations in sets of economic and institutional configurations across regions and countries. The typologies of business systems theory depart from the dominant comparative capitalism approach and provide a new scheme to examine a much wider range of types of economies (Jackson and Deeg 2006: 27). According to Whitley (1999: 5), the comparative business systems approach aims to (a) identify and explain the common and distinctive features of existing systems of economic organization in specific institutional environments, and (b) uncover the coordination mechanisms among actors and institutions. It also seeks to analyse the development of and changes in varied forms of business systems and to establish the main determinant of the changes. Hence, as Whitley (*ibid.*: 6) affirms, the business systems approach is substantively consistent with other institutional comparative approaches.

Whitley defines business systems as:

...distinctive patterns of economic organization that vary in their degree and mode of authoritative coordination of economic activities, and in the organization of, and interconnections between, owners, managers, experts, and other employees. (Whitley 1999: 33)

This definition emphasizes the mechanisms involved in coordinating economic behaviour and interactions between actors within specific economic and institutional arrangements and environments. Whitley (*ibid.*: 42) identifies six major ideal types of business system, namely, fragmented, coordinated industrial district, compartmentalized, state-organized, collaborative, and highly coordinated, which are distinguished by the level of ownership coordination, inter-firm relations and employment relations.

Fragmented business systems, exemplified by Hong Kong, are characterized by predominantly small owner-controlled firms in a highly competitive market, short-

term employment and transitory inter-firm relations, low level of coordination and low risk-sharing between business partners. Coordinated industrial district business systems, represented by “the Third Italy”, are also predominantly small owner-controlled firms, but show some degree of ownership and non-ownership coordination. In compartmentalized systems, as in the Anglo-Saxon economies, a high degree of ownership coordination is led by large firms in the arm’s length market, while inter-firm coordination and employment relations are less developed. State-organized business systems have many similarities with compartmentalized systems, the main difference being that large enterprises in the latter are directly owner-controlled, while the supportive and guiding role of the state is more prevalent in the former, such as South Korea. The collaborative system is characterized by “alliance” forms of owner control, a greater degree of coordination within sectors, and interdependent employment relations, but a low level of inter-firm coordination in unrelated sectors, as in European economies. Finally, highly coordinated business systems establish a much higher level of intra- and inter-sectoral coordination with a greater degree of interdependent employment relations, such as in Japan (Whitley 1999: 43–44).

To better understand the distinctive types of business systems, it is essential to analyse the features of key institutions. As asserted by Whitley (*ibid.*: 47), a specific type of business system is developed and framed in a particular institutional context. He highlights the interdependence, mutual effects, and reciprocal reinforcement between the institutional features and business system characteristics in structuring business systems (*ibid.*: 54–55). In any market economy, the predominant types of economic organization directly reflect the key determinant institutions, which also implies that the stronger the presence of certain institutional features, the more perceptible the impact of the institutional environment on structuring and shaping economic organizations will be (*ibid.*: 54–55). The concept of institutional complementarities seen in the VoC approach is also relevant here: Whitley defines complementarity as “the degree to which ... institutions encourage similar kinds of economic actors to behave in similar ways and reinforce each other’s effects” (Crouch 2005: 54, citing Whitley 2005). Compared to Hall and Soskice, Whitley provides much more complex dimensions of economic and institutional arrangements. He differentiates four major institutional features:

The state is compared concerning the strength of the state’s coordinating and developmental role, strength, and incorporation of intermediaries and strength of market regulation. The financial system is distinguished by the capital market or

credit-based. Skill development and control are compared regarding the strength of the public training system and union, the dominant organizing principle of unions, and the centralization of bargaining. Trust and authority are compared in terms of the degree of trust in formal institutions, paternalist authority, communitarian authority and contractarian authority, and the type of business environment. (Whitley 1999, as cited in Jackson and Deeg 2006: 27)

Whitley links his six types of business systems to a certain set of institutional arrangements. Fragmented business systems are often coupled with a weak state, low risk-sharing by banks, weak trade unions, a poor training system, and low trust in formal institutions. In coordinated industrial district business systems, the local governments, banks, and training organizations actively collaborate with actors, which facilitates a somewhat higher level of trust in formal institutions. Compartmentalized systems are built on “arm’s length institutional contexts”, in which the state plays a regulatory role, highlighting the weakness of the state, and the arm’s length principle also applies in the highly liquid capital market. Compartmentalized systems are associated with weak training systems but high levels of trust in formal institutions (Whitley 1999: 59–61).

In state-organized business systems, the state performs a decisive role in economic activities, and intermediary associations and unions are tightly controlled by the state. Similarly, the collaborative and highly coordinated business systems are characterized by a strong state supporting and encouraging actors and associations, and credit-based financial systems. The differences between these two types of business system are the strength of unions and related bargaining power, and the degree of trust in formal institutions, with the collaborative system showing higher levels in these dimensions than the highly coordinated business systems (Whitley 1999: 62–63).

If we return to the dichotomous typologies discussed earlier, Whitley’s coordinated industrial district, state-organized, collaborative, and highly coordinated business systems can be reduced to a parsimonious set of categories which match Hall and Soskice’s ideal type CMEs, as the exhaustiveness and complexity of variables is “too heavy to be handled” (Redding 2002: 224). It is undeniable that these four types of business systems show a relatively high degree of non-market coordination so that they can be seen to cluster around the pole of CMEs. Although the label of CME provides a broad understanding, however, this narrower typology substantially ignores the details and fails to identify greater divergence of coordination mechanisms (Crouch 2005: 40, Jackson and Deeg 2006: 32). As Crouch (2005: 40–41) argues, Whitley’s formulations encompass more complex dimensions, including

cases with two or more theoretical types, such as in the emerging and transitional economies.

The dynamic perspective in business systems theory

The characteristics and institutional features of business systems are interconnected and mutually reinforcing and constraining in particular ways. The formation of and changes in divergent business systems are highly interrelated with particular institutional contexts, which brings us back to the fundamental concept of the VoC approach: institutional complementarities. Hence, the higher the level of institutional and systematic coherence in an economy; the stronger the path dependence that will be created. The concept of institutional complementarities is thus the foundation of both business systems theory and the VoC approach. However, while the VoC approach has been criticized for overemphasizing institutional path dependence and neglecting institutional changes, Whitley adopts a dynamic perspective in business systems theory.

Unlike Hall and Soskice, who emphasize the isomorphic power of institutions and the consistency and stability in highly cohesive economies, Whitley focuses on the external and internal pressures, the conditions, the nature of consequences of changes in distinctive business systems. He argues that without internal support, the external pressure of growing global capital and product market integration is insufficient to cause changes in economic and institutional structures and configurations (Whitley 1999: 183, Zhang and Whitley 2013). Whitley (1999: 179–183) indicates that during the process of industrialization, the existing predominant types of economic organization and institutions are substantially shaped by pre-industrial economic and institutional legacies, which create strong path dependence, especially in the cohesive and integrated business systems. In any highly cohesive business system, a significant change in prevalent types of economic organization relies on large-scale transformations in business-system characteristics and the related determinant institutions (Whitley 1999: 186–206). In other words, without allied shifts in predominant institutions and characteristics, or in the loosely interdependent and integrated business systems, major changes in prevalent types of economic organization may not occur (Whitley 1999: 183–206).

Whitley (*ibid.*: 193) adds that as the crucial role of institutional factors in the macro-economy changes, this fundamental shift will lead to significant transformations, such as the collapse of the Soviet bloc. However, it is very rare to see “radical changes of dominant institutions in established market economies”. Even

when such changes occur, this usually involves only deviations from the original design, due to the stickiness of pre-existing economic and institutional structures. Hence, Whitley (*ibid.*: 193–206) asserts that changes in prevalent institutional features and business-system characteristics are mostly incremental, resulting in “less obvious” shifts of economic and institutional structures and configurations.

In sum, the VoC approach and business systems theory share the foundational concept of institutional complementarities, which emphasizes the isomorphic force in cohesive systems. The difference between the VoC approach and business systems theory is that the former stresses the stability and unwillingness to change due to the uncertainty of mutual benefits, while the latter highlights the importance of institutional factors in guiding business-system changes, and the mutual reinforcement among actors and institutions when major changes occur. Whitley (1999: 183) asserts that, in established economies, incremental change and path dependence are more likely than intermittent radical changes. In short, in comparison with the VoC approach, Whitley’s business systems theory provides a more comprehensive and dynamic perspective for analysing and comparing distinctive business systems and the role of the state.

2.3 The theoretical argument and analytical framework

2.3.1 The theoretical argument

VoC and business systems theory, as the two dominant comparative capitalism approaches being introduced here, share two significant features. First, the main focus of comparative analysis is (a) to identify the similarities and diversities of relatively fixed national economic and institutional configurations and coordination mechanisms, (b) to group them into distinctive types of economic systems, and (c) to clarify how and why a particular set of economic and institutional arrangements exists and is maintained in a specific type of economy, and absent from other types. Second, comparative capitalism literature shares the notions that (a) economic actors are relational and embedded in different economic systems and (b) economic actions are interrelated and coordinated with particular institutional arrangements. As highlighted in the comparative capitalism literature, economic actors and institutions are mutually reinforcing and interconnected within specific economic and institutional arrangements. In any economy, institutional domains are deliberately deployed to provide a particular institutional environment for economic actors, and at the same time, economic actions and behaviour will follow a specific logic, which strategically fits the particular institutional environment. These notions imply the

underlying fundamental concept of comparative capitalism analysis: institutional complementarities and isomorphism. Hence, the comparative capitalism literature arrives at the following decisive conclusions.

- a. The presence of institutional complementarities and the isomorphic power of institutions reinforce the clustering of cohesive institutional domains in an economy.
- b. The higher the level of institutional complementarities that exists in an economy, the more cohesive the model will be, which leads to the greater efficiency of coordination mechanisms and better economic performances. In contrast, heterogeneous cases will be less efficient and generate poorer economic outcomes.²
- c. The mutual benefits yielded by institutional complementarities among diverse institutional domains, and the uncertainty of change, enhance the persistence and stability of the existing economic and institutional arrangements. In other words, as a result of strong institutional complementarities, the economic system and institutional arrangements become path dependent, which explains how and why economic systems persist.

Hence, the comparative capitalism approach asserts that the institutional complementarities and isomorphic power of institutions will render existing patterns path dependent. The VoC approach focuses more on the stable equilibrium outcomes of relatively static models of capitalism (Jackson and Deeg 2006: 28–29), while business systems theory stresses path dependence as a dynamic process of development of diverse systems. Hall and Soskice (2001) developed a static approach, which has been criticized for overemphasizing the stability and persistence of cohesive economic and institutional configurations, which make it difficult to explain how and why institutional change arises (Campbell and Pedersen 2007: 324–325, Jackson and Deeg 2006: 28–34, Hall and Thelen 2009: 8–9). When patterns of economic actions and behaviour reach an equilibrium, path dependence will be generated. From the path dependence perspective, institutional stickiness, rigidity, and inflexibility will be reinforced by the isomorphic power of institutions and institutional complementarities. Once lock-in occurs, only an exogenous force can free the patterns and behaviours from their stable equilibrium. Unlike the VoC approach, the business systems theory of Whitley (1999) not only uses a wider variety of coordination mechanisms to identify more complex typologies, but also investigates the determinant institutional domains behind changes in distinctive business systems. He explicitly brings the concept of path dependence into his study and

highlights the importance of pre-industrial economic and institutional structures and configurations in shaping the existing dominant types of institutions and economic organizations (Whitley 1999: 179–183). As mentioned above, the typology of the VoC approach largely ignores the greater divergence of non-market coordination mechanisms (Crouch 2005: 40, Jackson and Deeg 2006: 32). Thus, in comparison with Whitley’s detailed formulations, the VoC approach fails to identify the diverse strategic coordination mechanisms in the core institutional domains, and — more importantly — the model is unable to show the subtle and incremental changes over time in its very narrow typology. In short, business systems theory overcomes some of the limitations of the VoC approach in dealing with the dynamics of economic systems.

Despite the differences between the static perspective of the VoC approach and the dynamic perspective of business systems theory, both approaches stress the strong institutional path dependence in economic systems, so that their way of understanding the patterns of economic actions, behaviours, and institutional arrangements follows the same logic. Based on this path-dependent logic, existing established systems, even the mixed or inefficient cases, are unlikely to undergo radical fundamental transformations from one type to another, and only the “less obvious” incremental changes are likely in established economies. Moreover, the “equilibrium” perspective is rational, suggesting that economic strategies and decisions are rationally determined under the isomorphic power for achieving a stable equilibrium, which implies that without external force, mindful deviation is unlikely to occur. Nevertheless, in reality, creation and mutation have not been halted by path dependence or lock-ins. Institutions are created by humans to reduce uncertainty and paths are formed by human activities, and the human will and human actions cannot be completely rational or entirely consistent with the institutional environment. As well as external pressures, the endogenous power of human will has always played a central role in shaping or unlocking paths. Hence, path dependence, lock-ins, or equilibrium should not be considered the only possible outcomes, but should be seen as part of an ongoing process, which is liable to mutate and transform over time.

Nölke and Claar (2013: 36) have pointed out that although an increasing number of comparative capitalism studies have begun to focus on institutional change, most of them limit the scope of their investigations to one or two decades, and neglect long-term evolving economic and institutional configurations and arrangements. Whitley (1999) emphasizes the change of dominant institutional domains in business systems, but he offers a relatively limited historical perspective of the

development and change of business systems in his case studies. The initiatives and the role of different economic actors and organizations, including governments, banks, firms, associations, etc., in changing systems have not been discussed in detail. Additionally, Whitley (1999) says little about the initial conditions of an economy, which will condition the present economic and institutional configurations to a certain degree.

Based on the discussion above, neither the VoC approach nor business systems theory have provided a comprehensive systematic approach to analysing changing economic and institutional configurations. While it is undeniable that institutional complementarities, the isomorphic power of institutions, as well as the pre-existing economic and institutional configurations and structures, all exert a profound impact on shaping paths, the initiatives of economic actors, organizations, institutions, and the role of exogenous forces or shocks in generating novelty and influencing path development, should not be disregarded. It is essential to bring together the concepts of path extension, path renewal, and path creation if we are to understand how distinctive economic and institutional configurations and arrangements become shaped and changed over time.

2.3.2 Analytical framework

In this study, the main focus is to understand how the changing roles of local governments influence the dynamic regional business systems in the transitional heterogeneous Chinese economy. Business systems theory and evolutionary theory are used to understand how and why distinctive regional development trajectories become established and evolve in the transitional heterogeneous Chinese economy.

Although business systems theory and the VoC approach share many similarities in core dimensions and fundamental concepts, there are three major merits of using business systems theory as a broad framework in this research. First, business systems theory overcomes the limitations of oversimplified dualistic typologies inherent in the VoC approach. It provides much more complex typologies and dimensions as well as a dynamic view of economic and institutional arrangements, allowing us to examine a much wider range of economies, including the emerging and transitional economies (Crouch 2005: 40–41, Jackson and Deeg 2006: 27–32). Second, Whitley's approach combines a micro perspective of firms with a macro view of the state, which shows more balance than the firm-centred VoC analysis. Third, because the VoC approach directly links economic outcomes to the degree

of coherence of an economy, it is unable to explain the rapid growth of China's economy. Whitley's approach, by contrast, does not emphasize causality between economic performance and the level of coherence of an economy. This means that business systems theory is more adaptable than the VoC approach in examining the emerging, transitional Chinese economy with its heterogeneous developmental pattern.

However, there are also challenges to using business systems theory in this research. First, business systems theory provides a very broad theoretical and conceptual framework, which includes many variables and indicators. It seems all possible explanations and determining factors can be found within business systems theory. Using such a broad concept to understand the evolving regional development trajectories brings challenges (too broad to use). Second, attempting to understand the role of the state in existing regional business systems and development trajectories (given outcome) by seeking evidence and explanations within business systems theory may create hindsight bias, which is another challenge to the research. Moreover, business systems theory focuses on examining and analysing the coordination mechanisms among actors and institutions within a specific set of economic and institutional arrangements and environments, but does not study the causality, which means there will be alternative explanations and factors which fall outside of business systems theory. Third, there is the challenge of whether the findings of the research can be generalized beyond the selected case studies (Yin 2003: 37).

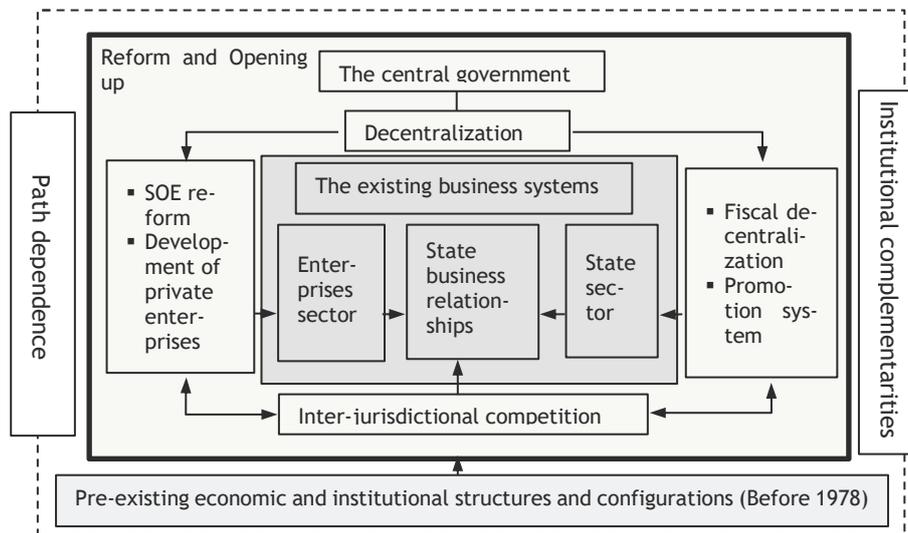
It is notable that Whitley (1999) excludes mainland China from his East Asian business systems case study. His approach builds on the established market, and in his model, outcomes are shaped by market forces (Redding 2002: 225). Hence, from Whitley's point of view, the evolutionary processes of the Chinese economy are not natural, and do not follow "the natural logic of cause and effect in finding paths" (Redding 2002: 225). Whitley's view largely disregards the initiatives of economic actors in shaping and creating paths and substantially underestimates the significant marketization efforts in China since 1978 and the crucial role of market forces in the Chinese economy. Moreover, neither the VoC approach nor business systems theory pay attention to regional differences, whereas, as discussed in Chapter 1, uneven regional development and a great diversity of economic and institutional patterns are typical of the transitional Chinese economy. Investigating the development trajectory at the national level will not lead to an understanding of the differences in regional economic performance, economic actors' behaviour, and local developmental paths. There is no single explanation for the regional differences. Regions are subject to a set of economic and institutional arrangements and

historical and social legacies including specific resource bases (Andriesse 2008: 32), which shape a variety of developmental patterns. Such uneven regional development is a common phenomenon, especially in emerging and transitional economies like China. This research therefore deploys business systems theory at the regional level in the heterogeneous Chinese economy.

In this study, I neither portray the Chinese system in an undifferentiated manner, nor attempt to identify how many business systems exist in China, but select two representative provinces of China's unique dual system, namely, the early adopter Zhejiang, in the eastern coastal area, and the latecomer Yunnan, in the western region.

The research uses a broad and comprehensive framework for understanding and comparing the coordination mechanisms underlying the evolving regional development trajectories and the changing role of economic actors, organizations, and institutions. Hence, adapted versions of Whitley's formulations are applied here as basic conceptual categories for identifying the diverse dominant features in certain sets of institutional arrangements based on the Chinese economic and institutional context. The established regional business system is studied in three blocks, namely (a) enterprises sector, (b) state sector, and (c) state–business relationship, as shown in Figure 2.4 below. The newly defined enterprises block, including both state-owned enterprises (SOEs) and private enterprises, is broader than the private sector as defined by Whitley. The reason for including SOEs in the enterprises sector is that the ultimate goal of SOE reform in China is to wholly convert these enterprises institutionally to the private sector or to entirely marketize the SOEs. Hence, in this research, the enterprise sector (domestic) includes both private enterprises and SOEs.

Figure 2.4
Analytical framework



The incremental process of unique decentralization reform in China has a profound impact on shaping the role of the state in regional development trajectories, which substantially influences the dynamics of regional business systems. This research is conducted from an evolutionary perspective and deploys business systems theory at the regional level; hence, the role of top-down decentralization reform is studied in this research.

During the 1950s and early 1960s, especially, developing countries were generally observed to have centralized and unified administrative organizations or governments (Randinelli et al. 1983: 5–8). This tendency for governments in Third World countries to have centralized management was mainly due to the heavy investment in nation-building. However, over time, the negative consequences of overcentralized systems began to emerge, which led to serious administrative and economic problems: governments gradually found themselves confronted by difficulties implementing national strategies and administering entirely from the centre. Due to poor economic performance and ineffective and inefficient governance, from the 1970s governments in developing countries started seeking new governance structures to more effectively, efficiently, and equitably use and distribute limited resources and to stimulate participation in national development activities, so as to increase productivity and promote economic growth. Decentralization was seen as a form of “corrective device” to solve the growing problems caused by

excessive centralization (ibid.). Since then, a large number of developing countries have initiated a fundamental transformation: decentralization.

Rondinelli et al. define decentralization as:

...the transfer of responsibility for planning, management and resource raising and allocation from the central government and its agencies to: (a) field units of central government ministries or agencies, (b) subordinate units or levels of government, (c) semiautonomous public authorities or corporations, (d) area wide, regional or functional authorities, or (e) nongovernmental private or voluntary organizations. (Rondinelli et al. 1983: 13)

Hence, decentralization allows the central government to be better informed about local conditions and to react quickly by giving local authorities or organizations discretion in decision-making (Rondinelli et al. 1983: 8–13). As the degree of independent decision-making and responsibility transferred from the central government to local authorities might differ, four types of decentralization are distinguished by Rondinelli et al. (ibid.: 14), as follows:

- a. Deconcentration (direct control by the central government): the transfer of power and responsibilities from a central government to a lower-level branch or regional administrative units, which remain within the central government structure (Rondinelli et al. 1983: 19, also Bird and Vaillancourt 2008: 3);
- b. Delegation (indirect control by the central government): the transfer of power and responsibilities or functions to local organizations, which are not within the central government structure and act as agents for the central government (Rondinelli et al. 1983: 19, Bird and Vaillancourt 2008: 3);
- c. Devolution (the most complete form of decentralization): regional authorities or organizations are (semi-)autonomous and (semi-)independent in decision-making (Rondinelli et al. 1983: 24–25, Bird and Vaillancourt 2008: 3, White and Smoke 2005: 6);
- d. Privatization: responsibilities and power are shifted by governments to private sector or “parallel organizations” (Rondinelli et al. 1983: 28).

According to many studies about decentralization in developing countries (Rondinelli et al. 1983, Bird and Vaillancourt 2008, White and Smoke 2005), governments have applied various combinations of these four types of decentralization. However, the implementation of decentralization reform in developing countries has not always achieved the primary goal (Rondinelli et al. 1983: 8–13). Rondinelli

et al. (ibid.: 33–34) point out that “centralization and decentralization are not mutually exclusive or dichotomous arrangements for governance”. Hence, the challenge for the implementation of decentralization is to find the “optimal mix” of discretion in decision-making and the balance between centralization and decentralization (ibid.: 33–34). Rondinelli et al. conclude (ibid.: 76) that “decentralization is not a ‘quick fix’ for the administrative, political, or economic problems of developing countries”. The “optimal mix” for decentralizing powers and responsibilities evolves and shifts along with changes in national and local institutional and economic conditions. A further challenge for implementing decentralization is that conflicts between central and local governments seem inevitable, especially in the transitional economy (Bird and Vaillancourt 2008: 4–5). In other words, the goals and interests of central and local governments do not always coincide in the heterogeneous economy (ibid.). Without an incentive structure, decentralization may not have the effectiveness and efficiency intended and designed by the central government. Hence, providing proper incentives to local authorities is vital in the implementation of decentralization, which exerts a profound impact on the behaviour of economic actors at the local level.

As already noted, decentralization is an evolutionary process that plays a determining role in shaping regional development trajectories and local economic actors’ behaviour. This means that, if we are to understand the evolutionary business systems in Zhejiang and Yunnan, studying the decentralization reform in China is essential, given that: (a) this research applies business systems theory at the regional level; and (b) China’s form of decentralization is unique, which shapes the role of the state in regional development trajectories and has a profound impact on the changing state–business relationship, which is neglected in conventional decentralization theory.

Overall, this research is conducted from a dynamic perspective, using the path dependence approach. To understand the evolving development trajectories and the changing role of economic actors in Zhejiang and Yunnan in the heterogeneous transitional economy, the existing business systems in Zhejiang and Yunnan will be studied first. After identifying the dominant economic and institutional features and the coordination mechanisms in the two business systems, the historical developmental paths of Zhejiang and Yunnan will be presented. This will include an investigation into the regional historical circumstances, initial conditions of resource bases, and distinctive institutional arrangements in Zhejiang and Yunnan, which leads to a classic question in path dependence theory: does history matter? If it does, could the highly unified and centralized policies and institutional arrangements alter

the impact of pre-existing regional economic and institutional configurations in the pre-reform period? If regional difference was reduced during the planned economy period, how do we explain the substantial regional difference once the economic reform started?

The economic reform that began in 1978 marked a turning point in the Chinese economic development trajectory. Hence, the evolving economic and institutional structures and configurations before and after economic reform, at both central level and local level, are studied to understand what determines the dominant features of the existing business systems, how and why particular development trajectories are shaped, and the nature of the changing role of local governments in local economic development in the Chinese transitional economy. The economic reform, as a given set of economic and institutional arrangements, can be seen as a form of decentralization, which provides more room for different economic actors. With increasing decision-making and financial power, the behaviour of local governments and enterprises will be altered, in turn influencing the business system and the development trajectory. Ultimately, then, this research aims to identify the underlying mechanisms or determining factors of the evolving development trajectories and the changing role of the state.

Notes

¹ According to Page (2006: 89), in path dependence “the path of previous outcomes matters”, whereas in what he calls *phat dependence*, “the events in the path matter, but not their order”.

² This assumption is highlighted in the VoC approach, while business systems theory does not directly link economic outcomes to the degree of coherence of an economy.

3

Research Design and Methodology

This chapter introduces the research design and methodology. Section 3.1 first describes the selection of the research strategy, and section 3.2 then presents the design of the research, including the units of analysis, what data are relevant, what data to collect, and how to analyse the results. The sampling method and data collection for the survey, and the method of testing whether the two cases are significantly different, on the basis of the survey results, are also discussed.

3.1 Research strategy

According to Yin (2003: 1), for conducting social science research, a number of different research strategies are available, including the case study, survey, histories, and analysis of archival information.

Each type of strategy can be used for solving a particular type of research question. If the researcher focuses on the “what” question, an exploratory study, survey, or archival research strategies will be the most advantageous research strategies to apply (Yin 2003: 6). On the other hand, case studies, histories, or experiments are better strategies when research questions focus on the “how” and “why”, because in order to answer these types of questions, the researcher needs large amounts of documentary information to explain phenomena over more than one point in time (ibid.: 6–7). A look back at the research questions listed in Chapter 1 shows that “what”, “how”, and “why” types of questions are all posed in this research, which suggests that it will be beneficial to use multiple research strategies.

Besides the type of research question, the selection of research strategy also depends on two other conditions: to what extent an investigator has control over actual behavioural events, and whether the research focuses on contemporary or historical phenomena (ibid.: 1). According to Yin (ibid.: 7–8), the case study is a preferred research strategy in studying contemporary phenomena. In case study research, the researcher has no control over the relevant behaviours but directly

observes or interviews persons involved in the event (*ibid.*: 7–8). This research aims to identify and compare the existing business systems and the contemporary development trajectories in Zhejiang and Yunnan. The distinctive business system, the unique development trajectory, and the factors or variables that affect and shape the business system and the path are not under the investigator's control.

Therefore, the type of research questions, the extent of control over actual behavioural events, and the contemporary focus of this research meet the basic conditions for the case study approach as defined by Yin (*ibid.*: 1). A comparative case study was thus judged to be the ideal research strategy for this research. For the investigation of prevalent attitudes and reactions of economic actors, which are embedded in the existing economic and institutional context, a survey is used to identify and reflect upon the contemporary phenomena being studied. Furthermore, this study adopts an evolutionary perspective, exploring how and why a particular business system, the path of development, and the role and behaviour of economic actors evolve over time, to achieve a better understanding of the contemporary phenomena. Therefore, for dealing with the explanatory research questions, research strategies including history and the analysis of archival records are also used to analyse the contemporary situation.

In sum, as this research is exploratory, descriptive, and explanatory, the comparative case study method is applied in combination with other research strategies, including survey, history, and archival research. Both primary and secondary documents are major sources of evidence and both quantitative and qualitative data are collected for creating internal validity.

3.2 Designing the case study

Yin (2003: 20–21) defines research design as “a logical plan from here to there (i.e. here: the initial set of questions to be answered, and there: some set of conclusions about these questions)”. Between “here” and “there”, there are two major steps — the collection and analysis of relevant data (*ibid.*: 20). Hence, in general, a research design deals with four major problems: “what research questions to study, what data are relevant, what data to collect, and how to analyse the results” (Philliber et al., as cited in Yin 2003: 21). As the initial set of research questions has already been posed in Chapter 1 and the nature of the research questions, in terms of “what”, “how”, and “why” questions, has also been clarified above, this section will present

the units of analysis, what data are relevant, what data to collect, and how to analyse the results.

3.2.1 Units and object of analysis

As discussed in Chapter 2, for conducting this research, a broad and comprehensive framework (i.e. both private and state sector) is used with the aim of understanding and comparing the coordination mechanisms underlying the evolving regional development trajectory and the changing role of economic actors. Hence, the units of analysis as defined by Whitley's formulations are applied here as basic conceptual categories for identifying the diverse dominant features in certain institutional arrangements. Importantly, since the economic reform was launched in 1979, China's economic system has undergone a radical institutional transformation from a highly centralized and unified planned economy to a market-oriented economy at both the micro and macro levels of the system. This means that enterprises and both central and local governments are units of analysis in this research. As domestic industrial enterprises, both private enterprises and SOEs, are the main driving forces of economic growth in Zhejiang and Yunnan, information on industrial enterprises is collected in this research. (The determining role of industrial enterprises in local economic development in Zhejiang and Yunnan is demonstrated and explained in Chapter 4.) To understand and compare the changing role of the state in the distinctive and dynamic regional business systems and to understand how and why distinct patterns have been shaped and have evolved in the heterogeneous Chinese economy when national-level reform and policies are applied simultaneously, Zhejiang and Yunnan — two contrasting cases reflecting significant regional differences and the unique dual system — are sampled based on theoretical replication logic to compare whether the empirical results produce contrasting results. More specifically, as discussed above, there is an investigation into prevalent attitudes and reactions of economic actors in the existing economic and institutional context by means of a survey, in-depth interviews, and literature analysis, in order to identify and reflect the contemporary phenomena. For the purpose of the survey, two prefecture-level cities in each province were selected: Wenzhou and Jinhua in Zhejiang, and Kunming and Qujing in Yunnan.

Wenzhou has been considered the “birthplace” of the private economy in China, while Jinhua (and especially the county-level city of Yiwu) has been known as one of the largest small-enterprise commodity markets in China. During the initial stage of reform, the two selected cities in Zhejiang creatively developed their business models, which have provided a substantial stimulus to local economic growth and

have been widely applied in China. The GRP in Wenzhou and Jinhua in 2017 reached 541.2 billion yuan (69.07 billion euro) and 384.9 billion yuan (49.1 billion euro) respectively, ranking them 35th and 54th out of 334 prefecture-level cities in China (Zhejiang Provincial Bureau of Statistics 2018). Kunming is the provincial capital of Yunnan and Qujing is the second-largest city of Yunnan, contributing 41.5% of total GRP of Yunnan in 2017 (Yunnan Provincial Bureau of Statistics 2018). The GRP in Kunming and Qujing in 2017 reached 485.6 billion yuan (61.97 billion euro) and 196 billion yuan (25 billion euro) respectively, placing them 41rd and 125th out of 334 prefecture-level cities in China (Yunnan Provincial Bureau of Statistics 2018).

Given the crucial role played by Wenzhou, Jinhua, Kunming, and Qujing in the economic development of Zhejiang and Yunnan, industrial enterprises, including both private enterprises and SOEs, in these two locations were selected for this research.

3.2.2 The selection of indicators

In the previous chapter, the business systems theory selected for this study was discussed. Business systems theory is relatively adaptable to researching the heterogeneous transitional economy because it offers greater balance between private and state sectors, and provides richer and more complex typologies with a dynamic perspective. Hence, adjusted versions of Whitley's formulations are applied here as basic conceptual categories for selecting indicators that reflect the unique business systems in Zhejiang and Yunnan.

The indicators of existing business systems

The enterprises sector block identifies the characteristics of industrial structure within the jurisdiction, and shows and compares: (a) how enterprises, both SOEs and private firms, coordinate their economic activities and interact with other economic actors, such as customers and suppliers, competitors, other organizations and institutions; and (b) how ownership relations and the role of ownership impact on coordinating activities in a particular institutional context. The major indicators are listed in Tables 3.1 and 3.2.

Table 3.1
Regional industrial structure

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
Contemporary regional resource base	Local	SY
Distribution of GRP (1979-2017)	Local	SY
Industry statistics	Local	SY
Information of sampled firms (type of firm, firm size and age)	Local	Survey

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

Table 3.2
Enterprises sector block

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
Ownership relations		
- Concentration of ownership	Local	AR
- Involvement in management	Local	AR
- Vertical integration	Local	Qual./Survey
Non-ownership coordination		
- Density criteria	Local	Survey/AR
Employment relation		
- Employer-employee relations	National	Qual.
- Turnover rate	Local	AR

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

In terms of the institutional environment which supports and constrains the economic actors, the state sector block identifies the features of key institutions, and shows: (a) the extent to which the state is involved in economic activities; and (b) how the state coordinates or organizes the local economy through market regulation, intermediary associations, the financial system, education and training systems, and trade unions, as shown in Table 3.3 below.

Table 3.3
State sector block (from the state perspective)

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
The strength of the state		
- Market regulation and policies	National/Local	Qual.
Financial systems		
- Financial policies	National	Qual.
- The share of bank lending (2003-2016)	National	SY
The skill development and control system		
- The skill development	National/Local	Qual.
- The trade union	National/Local	AR/Qual.
State-business relations block		

- Business-governments collaboration	Local	Survey
- The intermediary economic association	National/Local	Qual./Survey

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

State sector block (from firms' perception)

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
The strength of the state		
- Firms' attitudes to permit systems	Local	Survey
- Firms' attitudes to market access	Local	Survey
- Firms' opinions on entry barriers	Local	Survey
- Firms' opinions on supporting policies	Local	Survey
- Firms' opinions on public services	Local	Survey
Financial systems		
- Sources of finance	Local	Survey
- Firms' opinions on accessing bank loans	Local	Survey
State-business relations block		
- Firms' attitudes to local governments	Local	Survey
- Firms' opinions on entry incentives	Local	Survey

The state–business relationship links the private sector block and state sector block and highlights the interdependence, mutual effects, and reciprocal reinforcement between firms and the state in shaping the particular business system. In other words, this sector shows how institutional complementarities and isomorphic power shape a corresponding type of coordination within a certain institutional arrangement. The state–business relationship is also reflected in cooperation between firms and state and the degree of dependence of firms on local governments. The major indicators are listed in Table 3.4.

Table 3.4
The state-business relations block

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
Business-government collaboration	Local	Survey
Intermediary economic association	Local	Survey
Firms' opinions on local governments	Local	Survey
Firms' opinions on entry incentives	Local	Survey

The indicators of regional historical pre-1979 developmental path

To understand how and why the business systems or development patterns have been shaped and have mutated, this research traces back to the period before the establishment of P.R. China, to examine the regional historical circumstances, initial

conditions of resource bases, and institutional arrangements of Zhejiang and Yunnan. In addition, it looks at the highly unified and centralized arrangements and the socialist transformation implemented during the pre-reform period, to study the impact of the centralized arrangement on the regional path of development (see Table 3.5).

Table 3.5
The regional historical developmental path before 1979

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
The regional development path before 1949		
- Resource bases	Local	Qual./AR
- Economic, industrial and institutional structures	Local	Qual./AR
The regional development path (1949-1978)		
- The unified national policies and related data	National	Qual./AR/SY
- The fiscal system and policies	National	Qual./AR
- The regional path of development	Local	Qual./AR/SY
- a. Regional development policies	Local	Qual.
- b. National investment and projects	Local	SY/AR

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

The indicators of the development trajectory of the economic reform (1979-present)

As emphasized in business systems theory, institutional domains are deliberately distributed through every type of economic system to provide a particular institutional environment for economic actors. In parallel, economic actions and behaviour always follow a specific logic within the economic and institutional arrangements. Hence, central government policies form particular economic and institutional arrangements in the evolutionary scheme, which create a particular institutional environment for economic actors. In order to better understand how and why particular business systems, development trajectories, and actors' behaviour are shaped, the detailed economic reform process is studied before the reactions of local-level economic actors are analysed. The relevant indicators are shown in Tables 3.6 to 3.8.

Table 3.6
The overview of economic reform in China: Decentralization (1978-2016)

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
SOE reform and development of the private sector		
- The policies and process of SOE reform	National	Qual./AR
- The relaxation of restrictions on the private sector	National	Qual./AR
Fiscal decentralization at central and local level		
- Fiscal policies	National/Local	Qual.
- Administrative policies	National/Local	Qual.
- Public budget revenue and expenditure	National/Local	SY
- Financial self-sufficient rates	National/Local	SY
- Transfer payments and tax rebates	National/Local	SY
- Extra-budgetary revenue	National/Local	SY
The Chinese cadre management and promotion system		
- The rank-order tournament scheme	National	Qual.

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

Table 3.7
Inter-jurisdictional competition

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
Horizontal competition		
- The Hukou system	National	Qual.
- Tax competition	Local	Qual./AR
- The division of budget expenditures	Local	Qual./AR
Vertical competition		
- The administrative system	National/Local	Qual.
- Financial self-sufficient rates	Local	SY

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

Table 3.8
The evolutionary business system of Zhejiang and Yunnan (1979-present)

<i>Indicators</i>	<i>Spatial level</i>	<i>Source</i>
The development of Zhejiang economy		
- The process of development of Zhejiang	Local	Qual./AR/SY
- Distribution of GRP	Local	SY
The development of Yunnan economy		
- The process of development of Yunnan	Local	Qual./AR/SY
- Distribution of GRP and industrial output	Local	SY

Note: The statistics yearbook is abbreviated to SY. Qualitative documentation is abbreviated to Qual. Archival records are abbreviated to AR.

As indicated above, this research includes multiple sources of evidence, both quantitative and qualitative, to address the research questions. The study's primary data are obtained through the survey conducted in four cities: Wenzhou and Jinhua

in Zhejiang and Kunming and Qujing in Yunnan. The secondary data of this research come from statistical yearbooks, documentation, and archival records. As emphasized in Chapter 1, because no unified operational set of measures has been developed in business systems theory, factors that connect economic, social, institutional, technological, cultural, or political concerns can be studied to explain and understand the dynamic regional development trajectories. However, this research does not include all possible explanations and factors but concentrates attention on the institutional economic factors within Whitley's business systems theory's basic conceptual categories. Factors external to business systems theory, such as cultural, technological, political, and demographic factors, are not the main focus of this study. In the next section, the method for conducting the survey will be presented.

3.2.3 Sampling method and data collection

As noted above, in this research, multiple sources of evidence, including both quantitative and qualitative data, are collected to address the research questions and to create internal validity.

a. Sampling method for the quantitative data collection

Sample size

According to Neuman (2014: 269), there are two methods to determine sample size: (a) to "make assumptions about the population and use statistical equations about random sampling processes"; or (b) to "decide a sample size by using a conventional or commonly accepted amount". Neuman (ibid.: 270-271) suggests that if total target populations are fewer than 500, the sample size should be about 30% of the total population. If the target population is over 150,000, the sampling ratio should be 1% (which would be equivalent to a sample size of 1,500), and if the population is over 10 million, the sample ratio should be 0.025%. Neuman (2014) also stresses that if the study is attempting to analyse many small subgroups within the population, it should include about 50 cases for each subgroup. As the number of industrial enterprises (registered legal entities) in Zhejiang and Yunnan totalled 417,132 and 20,034, respectively, in 2014 (National Bureau of Statistics 2015), the ideal sample size would be more than 4000, which is not practicable for surveying within one year. Therefore, it was decided to take 200 enterprises in total as the sample size in this survey.

The survey therefore covered 200 industrial enterprises in total, 50 in each of the four cities. An in-person interview was conducted with an entrepreneur or

senior executive in each firm. The duration of the fieldwork was from July 2015 to June 2016. Meanwhile, secondary data were also collected through statistical year-books, government reports, and other literature.

Testing and revising the questionnaire

Before surveying enterprises in Zhejiang and Yunnan, three entrepreneurs in Kunming were invited to test the questionnaire to find out: (a) whether the questions in the questionnaire fit the target interviewees; (b) whether the questionnaire represented the research objective; (c) whether the questions in the questionnaire were explicit and easy to understand; (d) whether there were any questions which entrepreneurs were reluctant to answer. The entrepreneurs' responses drew attention to some problems in the questionnaire: (a) some questions were no longer valid due to changes in industrial policies; (b) some multiple choice and ranking questions were too complicated, requiring too much time and patience from those completing the survey. After revising the questionnaire, the entrepreneurs were invited again to give advice. The data from the entrepreneurs who tested the questionnaire are not included in the research data. The survey questionnaire, in its final form, is given in the Appendix 1.

Sampling method

Random sampling was first adopted for conducting the survey, using a business directory to contact entrepreneurs and ask permission for an interview. However, due to outdated and inaccurate information, this method immediately proved impractical. An online questionnaire was then prepared and emailed to 100 verified enterprises from the business directory in Yunnan. Although the click rate was high, the return ratio was only 3%, and no respondent fully completed the questionnaire. Hence, no valid surveys were returned. The low return rate was attributed to the length of the questionnaire, necessitating a change of method: at this point, face-to-face interview sampling was adopted for conducting the survey. Offices of the Ministry of Industry and Information Technology were contacted in the four cities, and all agreed to provide lists of various types and sizes of industrial enterprises within their jurisdiction, with valid contact information. Although a systematic sampling is an ideal method for dealing with such a list, with a shortcut selection procedure, due to the limited number of enterprises in the lists and a high possibility of rejection by the enterprises, all the enterprises in the lists were contacted and invited for interviews.

Data collection

From that point, the fieldwork proceeded smoothly, and the majority of target respondents were very cooperative. When a respondent showed logical inconsistency, or gave up halfway through the interview, the survey results were not taken into consideration. The in-person interviews usually lasted 30 to 40 minutes in Zhejiang, while the interviews in Yunnan often took at least 1.5 hours. The length of time taken by the interviews was determined by regional industrial structures in Zhejiang and Yunnan. The majority of sampled industrial enterprises in Zhejiang mainly engage in light industry and manufacture small consumer goods, while most of the sampled industrial enterprises in Yunnan, especially large firms and SOEs, engage in heavy industry confronting relatively complicated coordination problems and business relations. Hence, compared to sampled firms in Zhejiang, firms in Yunnan spent more time answering each question.

After finishing the interviews in Zhejiang and Yunnan, the registered information of the sampled enterprises — such as registered capital, legal status, engaged business, etc. — was checked through the National Enterprise Credit Information Publicity System (<http://www.samr.gov.cn>). Sampled firms which provided inaccurate information were removed from the survey. Again, secondary data, such as statistical yearbooks, government reports, and other literature were used to supplement the survey results and also to confirm that the sampled enterprises reflect the dominant features of economic and industrial structures in Zhejiang and Yunnan, and that the survey results thus achieve the target of the fieldwork.

There were three main limitations during the fieldwork. First, it was difficult to put the ideal sampling method into practice so that the sampling method had to be changed during the fieldwork, in order to conduct the survey. Second, the sample size of the survey is relatively small; hence, to minimize this problem, a large amount of secondary data are used to support survey results. Third, although all the survey results have been checked through the government publicity system, information directly linked to the performance of firms is hard to obtain, and can only be inferred from other, indirect indicators.

Overall, in this fieldwork, face-to-face interviews have been conducted with more than 200 enterprises in Zhejiang and Yunnan. After removing the invalid survey results (<10), 200 sample surveys are left as study objects in this research.

The survey data analysis

As the research is intended to identify the distinctive business systems and to highlight regional differences, the survey results are tested to show whether there are significant differences between Zhejiang and Yunnan. The detailed information about the statistics results are presented in the Appendix 2: a summary is provided in Table 3.9 below.

Table 3.9
The results of statistical tests

<i>Indicators</i>		<i>Result</i>
firm types	$\chi^2=59.39$, $p=0.00$	significant difference
predominant industries	$\chi^2=70.8$, $p=0.00$	significant difference
firm age	$U=6175.5$, $p=0.004$	significant difference
firm size	$U=7752$, $p=0.00$	significant difference
five same business activities within city	$\chi^2=25.29$, $p=0.00$	significant difference
same business per km ²	$U=2058$, $p=0.00$	significant difference
the long-term partnership with suppliers	$\chi^2=5.2$, $p=0.022$	significant difference
the long-term partnership with clients	$\chi^2=0.64$, $p=0.8$	no significant difference
have merged or acquired other firms	$\chi^2=8$, $p=0.005$	significant difference
being merged or acquired by other firms	$\chi^2=15.63$, $p=0.00$	significant difference
the difficulty level of inter-firm coordination	$U=3525$, $p=0.00$	significant difference
applying for licence or certification	$\chi^2=0.363$, $p=0.547$	no significant difference
specialized requirements	$\chi^2=36.46$, $p=0.00$	significant difference
the difficulty level of accessing market	$U=5799.5$, $p=0.043$	significant difference
entry incentives	$\chi^2=50.47$, $p=0.00$	significant difference
entry barriers	$\chi^2=14.64$, $p=0.57$	no significant difference
supporting policies	$\chi^2=27.9$, $p=0.00$	significant difference

public service	$\chi^2=13.37$, $p=0.37$	no significant difference
business associations	$\chi^2=1.64$, $p=0.2$	no significant difference
loans from financial institutions	$t=1.24$, $p=0.219$	no significant difference
sources of finance	$\chi^2=39.37$, $p=0.00$	significantly different
the difficulty level of accessing bank loans	$U=1586.5$, $p=0.00$	significant difference
collaboration with local governments	$\chi^2=25.97$, $p=0.00$	significant difference
types of collaboration activities	$\chi^2=5.16$, $p=0.272$	no significant difference
importance of local governments in the enterprise's development	$U=7020$, $p=0.00$	significant difference

Source: Own survey result

b. Sampling method for the qualitative data collection

The qualitative data for this research come from in-depth interviews, documentation, and archival records. Qualitative data were collected through the same in-depth interviews with entrepreneurs and the senior managers of 200 sampled firms in Zhejiang and Yunnan. As mentioned above, the interviews usually lasted 30 to 40 minutes in Zhejiang and 1.5 hours in Yunnan. As well as conducting face-to-face interviews with sampled firms, local government officials and scholars were also interviewed and consulted about local economic development strategies and policies. These interviewees comprised: 14 local government officials from the local Ministry of Industry and Information Technology (three from Wenzhou, three from Jinhua, three from Kunming, and four from Qujing), and four scholars (one professor from the Chinese Academy of Social Sciences, one professor from Zhejiang University, and two professors from Yunnan University). Besides the in-depth interviews, documents and archival records are also major sources for qualitative data collection. More than 200 books, documents, and archival records on Zhejiang and Yunnan's economic development trajectories, including local governments' written reports and administrative documents, formal studies, newspaper clippings, and other sources of information, are used to corroborate and augment evidence from interviews.

In sum, Zhejiang and Yunnan were selected as two contrasting regions of the mixed Chinese economy. The statistically significant differences between Zhejiang and Yunnan regarding dominant features of industrial structure, inter-firm relations,

integration activities, market regulations, financial systems, etc. are proved by the survey results. As the research is conducted using mixed research methods, survey results, qualitative, quantitative, and secondary data are all incorporated to address the research questions and support the argument. In the next chapter, data from different sources will be combined to show the distinctive Zhejiang and Yunnan business systems.

3.2.4 Limitations

The research suffers from four major limitations: generalization, hindsight bias, causalities, and alternative explanations and factors external to business systems theory.

According to Yin (2003: 33–34), research should present “a logical set of statements”; hence, construct validity, internal validity, external validity, and reliability should be used to test the quality of empirical social research and case studies.

The question of whether the results can be verified as valid and reliable is one of the challenges in this exploratory, descriptive, and explanatory research. There are three major obstacles which “threaten” the validity of the research. (a) No unified operational set of measures has been developed in the comparative system theory. (b) Using the evolutionary perspective to understand the complex process of formation and evolution of regional business systems leads to a possible problem of availability of historical data. (c) The complexity of a heterogeneous and transitional economy is a challenge of the causal (explanatory) case study. Hence, to increase construct and internal validity, multiple sources of evidence (triangulating data), both primary and secondary (survey, history, and archival research, etc.), are used in this research.

Yin (2003: 37) argues that the issue of generalizability — whether findings can be generalized beyond selected cases — is a major challenge or barrier in conducting case study research. Unlike survey research, the case study does not have statistics to back it up, but relies on analytical generalization (*ibid.*). Hence, the external validity of this study is low because the findings in this research can only be generalized theoretically.

Moreover, as discussed in Chapter 2, business systems theory provides a very broad theoretical and conceptual framework with many variables and indicators. Finding the possible explanations and determining factors within business systems theory may create hindsight bias. Furthermore, business systems theory is exploratory, descriptive, explanatory: the comparative case study method is not intended

to study causality. There will be alternative explanations and factors external to business systems theory, which make it difficult to prove causality.

4

The Existing Zhejiang and Yunnan Business Systems

The Chinese transitional economy is characterized by significant regional divergence and uneven regional economic development. Although major economic reforms have been applied simultaneously across the whole country, distinct forms and patterns have developed and mutated in Zhejiang and Yunnan. Hence, to understand the changing development trajectories in Zhejiang and Yunnan, it is essential to first identify:

- a. the dominant economic and institutional features;
- b. the coordination mechanisms among economic actors and institutions.

This chapter is structured as follows. Sections 4.1 and 4.2 describe the existing Zhejiang and Yunnan business systems, respectively, while section 4.3 provides a comparative analysis of the two systems.

4.1 The existing Zhejiang business system

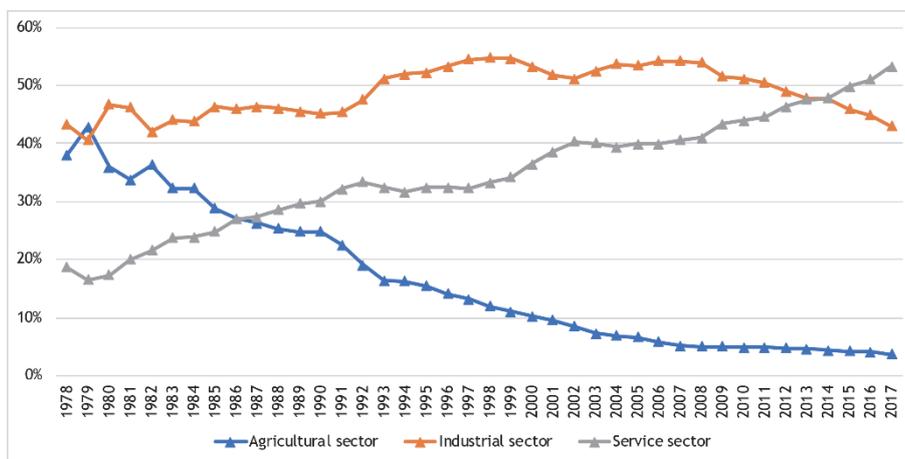
Zhejiang has been described as “seven portions of the mountain, one portion of water and two portions of the field” (*qi shan yi shui liang fen tian*), which means that the land area of Zhejiang consists of 74.63% mountainous area, 20.32% flatland, and 5.05% waters (Zhao, K. 2016, National Bureau of Statistics 2017). This landform results in a scarcity of cultivated land in Zhejiang, which totals about 1.97 million hectares, accounts for 1.46% of total cultivated land in China, and places Zhejiang 22nd out of 31 provinces and autonomous regions (National Bureau of Statistics 2017). The cultivated area per person in Zhejiang is about 0.035 hectares, which is far less than the national average of 0.096 hectares per person (*ibid.*). The gross output value of agricultural sector in Zhejiang in 2016 was 314.6 billion yuan (40 billion euro), only 2.8% of the total national gross output value of agricultural sector (*ibid.*).

Zhejiang is also poor in mineral resources. Only eight kinds of mineral resources have been discovered, and mostly in small quantities.¹ In 2006, the value of potential

mineral deposits in Zhejiang was estimated at only 5.57 billion yuan (0.71 billion euro), accounting for 0.09% of total national industrial mineral reserves (Zhang and Yang 2006); the natural resources composite index per person in Zhejiang was 11.5, which was the third-lowest of 31 provinces and autonomous regions, just above Shanghai (10.4) and Tianjin (10.6) (Yang, Z. 1992). At least 95% of minerals used in Zhejiang province are purchased from other regions (Zhejiang Provincial Bureau of Statistics 2014).

As noted in Chapter 1, the population density in Zhejiang in 2016 (549/km²) was well above the average population density in China (144/km²). The resource endowments of Zhejiang are thus characterized by high population density, insufficient cultivated land, low agricultural outputs, and acute scarcity of mineral resources. This poverty in agriculture and natural resources pushed the population to earn a living via manufacturing or commerce, and led to Zhejiang becoming one of the industrial and commercial centres of China.

Figure 4.1
The composition of GRP in Zhejiang 1978-2017 (%)



Source: Zhejiang Provincial Bureau of Statistics 2018

As shown in Figure 4.1, the manufacturing sector has been the biggest contributor to economic growth in Zhejiang since economic reform. In 1979, the agricultural sector contributed 42.8% to the GRP of Zhejiang, 40.6% came from the industrial sector, including manufacturing and construction, and only 16.6% from the service sector (Zhejiang Provincial Bureau of Statistics 2018). However, from 1980, the distribution of GRP across economic sectors in Zhejiang changed, with significant growth in the industrial sector. The industrial sector became the largest sector in Zhejiang, and from 1993 to 2011 it accounted for more than 50% of the Zhejiang

GRP (*ibid.*). Figure 4.1 reflects the ongoing changes in the Chinese economy, with the transformation of the industrial structure and the rise of the service sector. Although the service sector in Zhejiang surpassed the industrial sector in 2014 in terms of GRP, and has played an increasingly important role in Zhejiang's economy, the productivity of manufacturing still substantially outstrips other industries as the key driving force of economic growth. As the largest GRP generator in Zhejiang overall, manufacturing accounts for 43.3% of the Zhejiang GRP on average for the past four decades. Hence, to understand the dynamic path of Zhejiang's economic development, the manufacturing sector is the main focus of this research.

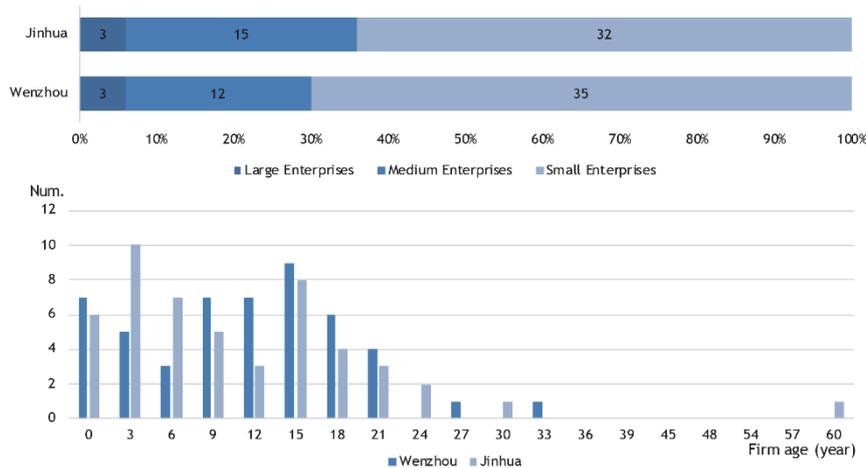
The manufacturing sector in Zhejiang is composed of a wide variety of products, ranging from low-tech and low-cost products such as clothing and apparel to high-tech products like cars. The total output of manufacturing enterprises above designated size (ads)² in 2017 was 6.05 trillion yuan (0.79 trillion euro) (Zhejiang Provincial Bureau of Statistics 2018). As the largest industry and biggest employment generator of the Zhejiang economy, the output and the number of employed persons in the textile, apparel and leather industry and chemical fibre manufacturing reached 1.04 trillion yuan (0.14 trillion euro) and 1.49 million persons, accounting for 17.2% of total output of the manufacturing sector and 22.83% of total number of employed persons in 2017³ (*ibid.*). Electrical machinery and apparatus manufacturing accounted for the second-largest percentage of total output in manufacturing in 2017 (10.79%) and chemicals and chemical products manufacturing the third-largest (9.13%) (*ibid.*). Additionally, Zhejiang private enterprises have dominated the annual ranking of China's largest 500 private companies by revenues, for successive 21 years (All-China Federation of Industry and Commerce 2019). In 2019, 57 out of 98 Zhejiang companies in the top-500 list were manufacturing enterprises, 16 of which were engaged in the textile, apparel and leather industry (10) and chemical fibre manufacturing (6) (*ibid.*). Together, the textile, apparel and leather industry and chemical fibre manufacturing dominate the manufacturing sector in Zhejiang.

It is also notable that, compared to other provinces, Zhejiang has the smallest number of SOEs, which account for less than 2% of the total number of SOEs in China (National Bureau of Statistics 2018). In the industrial sector, the gross output of non-state-owned and non-state-holding industrial enterprises (ads)⁴ was 4.13 trillion yuan (0.54 trillion euro), accounting for 62.3% of the total output of the industrial sector in 2017, while the output of state-owned and state-holding industrial enterprises (ads) accounted for 15.2%⁵ and foreign-funded industrial enterprises (ads) accounted for 22.5% in 2017 (Zhejiang Provincial Bureau of Statistics 2018).

The Ministry of Industry and Information Technology divides enterprises into size categories based on three criteria: number of employees, revenue, and total assets.⁶ In 2017, the small industrial enterprises (ads) were responsible for the largest output, providing 44.5% of total output of the industrial sector, followed by medium (31.6%) and large (23.9%) industrial enterprises (ads) (Zhejiang Provincial Bureau of Statistics 2018). Furthermore, the industrial enterprises below designated size (bds) — which are all small-sized enterprises — make up a large proportion of the Zhejiang economy. In 2017, the annual revenues of industrial enterprises in Zhejiang was 1.9 trillion yuan (0.25 trillion euro) and the number of employees was 5.73 million persons (*ibid.*). In short, domestic private enterprises, especially SMEs, are the dominant forms of industrial enterprises and the main driving forces of economic growth in Zhejiang.

The 100 sampled enterprises in Zhejiang reveal the same features as mentioned above. Domestic enterprises are the most prevalent type of sampled enterprises. The number of private firms sampled in Wenzhou and Jinhua far outweighs other types of sampled firms, accounting for 94% and 98% respectively. No SOEs were surveyed in Zhejiang, which is because (a) there are very few SOEs in Wenzhou (13) and Jinhua (19), and (b) SOEs in the two cities mainly engage in airport, railway, and harbour construction, telecoms, financing, and investment businesses. The survey results show that most of the sampled firms in Zhejiang make simple consumer products. In Wenzhou, 88% of sampled firms engage in manufacturing apparel, footwear, eyewear, or lighting equipment. In Jinhua, 24% of the sampled enterprises work in furniture manufacturing, followed by 22% of firms making equipment such as magnetic materials, electric power tools, etc. The rest of the sampled enterprises in Jinhua cover a wide range of product manufacturing. Notably, most sampled SMEs in Zhejiang focus on making intermediate products for large regional core firms.

Figure 4.2
Firm size and firm age of sampled enterprises in Zhejiang



Source: Own survey results (2015-2016)

Using the criterion “total assets” from the standard size classification of enterprises issued by the central government, the number of small-sized firms among the sampled enterprises accounts for the largest proportion in both Wenzhou and Jinhua, at 70% and 62% respectively (see Figure 4.2). Medium-sized enterprises in the two cities make up 24% and 34% of the sample, while only six large enterprises were interviewed in this survey. Figure 4.2 also shows that the average age of sampled firms is 13.13 years. The firm age up to 18 years has the most observations of all sampled firms in this research, and the number of sampled firms aged 18 years or more declines sharply. Hence, a firm age of 18 years is considered the line of demarcation in this study. Only about 20% of the sampled enterprises in Zhejiang have been established for over 18 years.

Overall, the features of the sample are identical to the industrial structures observed in the statistical yearbook. Private enterprises, especially SMEs, in low-tech, low-cost, and labour-intensive light industry, predominate in Zhejiang.

4.1.1 Enterprises sector block

Ownership coordination

As noted above, Zhejiang has the smallest number of SOEs in China and, compared with other types of enterprises, SOEs in Zhejiang generate the least amount of

output and employment. Private enterprises are the main driver of Zhejiang's economic growth, rather than SOEs. Due to the insignificant role of SOEs in local economic growth, the analysis in this block mainly focuses on identifying the dominant features of private enterprises in Zhejiang. The overwhelming majority of private firms, especially SMEs, are owned and controlled by families in Zhejiang. Indeed, family-owned enterprises are the most common type of firms in China. In 85.4% of private enterprises, families control more than 50% of the shares, and in 55.5% of private firms, families not only control half of the shares but are also highly involved in running the firms (China's Private Economy Research Group 2011). Zhejiang has the second-largest number of publicly traded enterprises in China; however, relatively highly concentrated ownership can be observed in these joint-stock enterprises.

According to a survey conducted by China Stock Market & Accounting Research Database (CSMAR) in 2016, the largest shareholders in 301 listed companies in Zhejiang on average held 33.77% of total shares (CSMAR, as cited in Zhang, J. 2017: 27–28). The largest shareholders in 34 listed companies in Zhejiang held 50% and above of total shares and about 30% to 50% of total shares in 142 listed firms were held by the largest shareholders (*ibid.*). At the same time, in 67.6% of listed firms the chairperson of the board also served as CEO, with only 32.3% of listed companies separating the positions of chair and CEO (*ibid.*). Hence, large-sized listed enterprises in Zhejiang show a high degree of concentration of ownership and high involvement in enterprise management. Due to the high concentration of ownership and involvement in the family business, the core group of family members shows a high level of risk-sharing and commitment to the firm's interests, as well as a high level of trust and a strong sense of duty. Family-based and owner-run corporate management can effectively reduce internal transition costs, especially for startups (Li et al. 2017), while at the same time, a relatively high level of exclusivity of ownership can be observed, especially for SMEs.

Vertical integration is relatively weak in most of these Zhejiang firms, especially SMEs. Industry in Zhejiang is characterized by highly specialized division of production processes, including manufacturing goods and services, and mature production networks, so that a range of production processes or other business activities are seldom combined in one enterprise. Rather than “self-sufficiency”, enterprises in Zhejiang are highly interdependent with other enterprises, especially SMEs, in making intermediate goods. Compared with this relatively weak, ownership-based vertical integration in Zhejiang, a lot more horizontal diversification can be found in large private enterprises, but less in SMEs. The horizontal

diversification of family business is quite similar to that found by Whitley (1999: 149) in East Asian business systems, especially Taiwan. According to my survey, large enterprises in Zhejiang also tend to informally and personally diversify their business into a variety of sectors. The usual pattern of diversification is to establish separate and unrelated businesses by the core group of family members, who share posts in all the firm's businesses. For instance, a large business group in Jinhua has diversified its business into electrical and electronic products manufacturing, pharmaceuticals, the chemical industry, and the film and television industry. Similarly, an enterprise in Wenzhou works in making paper products, textiles, apparel, and footwear manufacturing. Given the current enthusiasm for real estate investment, a number of large enterprises in Zhejiang have actively invested in property. Hence, the ownership-based horizontal diversification in Zhejiang is to some extent opportunistic.

Concentrated ownership and involvement in the business, as well as high levels of risk-sharing, commitment, trust, and a strong sense of duty are thus typical of the family-based enterprises in Zhejiang. This relatively high level of exclusivity of ownership in private enterprises, especially SMEs, is confirmed by the survey results. Sampled enterprises in Zhejiang do not engage extensively in merger and acquisition (M&A) activities, as illustrated in Table 4.1.

Table 4.1
Firms have (been) merged or acquired (by) other companies

	<i>Firms have (actively) merged or acquired other companies</i>		<i>Firms have (been) merged or acquired by other companies</i>
	<i>Wenzhou</i>	<i>Jinhua</i>	<i>Wenzhou</i>
Number	3	9	1
Time	2010: 3	2010: 2 2000-2010: 3 1990-2000: 3 1950: 1	2010: 1
Firm types	Private enterprises: 3	Private enterprises: 6 Joint-venture: 1 TVEs: 2	Private Enterprise
Firm size	Small	SMEs	Small
Product	Same: 3	Same: 6 Not same: 3	Same: 1

Payment methods	By cash: 1 By stock: 2	By cash: 5 By stock: 4	By cash: 1
Local government intervention	Very supportive: 1 No intervention: 2	Very supportive: 2 Somewhat supportive: 2 No intervention: 5	Very supportive: 1

Source: Own survey results (2015-2016)

Of the 50 enterprises surveyed in Wenzhou, only four have merged, or been merged, with other companies; in Jinhua, only nine firms have merged with or acquired other companies. Notably, sampled firms stated that the primary purposes of integration activities are to expand production facilities or upgrade production techniques and equipment, rather than to diversify their products and business. The initial goal of promoting ownership-based integration by the central government was to restructure unprofitable SOEs; hence, large numbers of M&A activities were initiated by local governments. As private enterprises dominated in Zhejiang before 2000, ownership-based integration activities were rare, and the local government in Zhejiang tended not to interfere with integration activities between firms. In 2000, Wanxiang Group Company (Zhejiang) acquired Scherer Corporation (US) — the first case of overseas M&A in Zhejiang, and in China (Zhu 2017: 41). The number of ownership-based transactions between listed companies in Zhejiang increased from 80 cases in 2010 to 375 cases by the end of 2016, including 46 cases of overseas M&A (ibid.).

Based on the discussion above, the highly specialized division of production processes and high level of exclusivity of ownership result in relatively weak, ownership-based, vertical integration, greater horizontal diversification, and a low level of M&A activities in SMEs in Zhejiang. However, many informal, personal, and opportunistic ownership, horizontal diversification, and M&A activities can be found in large enterprises.

Non-ownership coordination

As mentioned above, industry in Zhejiang is characterized by a specialized division of production processes, and highly interdependent enterprises, which form a mature production network. To determine the density/concentration level of sample firms, two questions based on Laine’s criteria for the density of clusters (Nauwelaers 2003: 9) are posed: (a) are there at least five firms with the same business activity in

the city? and (b) how many companies with the same business are there within a 1km² area? (See Table 4.2.)

Table 4.2
Density criteria in Zhejiang

	Wenzhou	Jinhua
Are there at least 5 firms with the same business activity in city	43	35
Average number of same business within 1km ²	40	10

Source: Own survey results (2015-2016)

The survey results for Zhejiang show a high level of concentration of enterprises and density of clusters, especially eyewear and apparel and footwear manufacturing clusters in Wenzhou and furniture and magnetic materials clusters in Jinhua. In 2009, more than 800 industrial clusters had developed in 85 out of 88 counties in Zhejiang, which covered 175 sectors including textile, apparel and footwear, electronic application manufacturing, and pen making (Wu et al. 2009: 3). Textile clusters in Zhejiang have the largest number of workers, and electronics and apparel and footwear manufacturing clusters have the second and third largest number of employees (Li, Y. 2014: 22–26). By the end of 2016, the sales revenues of clusters in 62 out of 81 county cities⁷ in Zhejiang had reached over 5 billion yuan (0.64 billion euro) (Zhejiang Institute of Industry and Information Technology, Government of China 2016). More importantly, the number of large core firms in clusters accounted for less than 10% of the total number of enterprises, but the sales revenues of core firms provided more than 80% of total revenues of clusters (*ibid.*).

The clusters in Zhejiang have formed complete supply chains and distribution channels from obtaining all the inputs, including raw materials and production equipment, to transporting and marketing the products. The regional core firms outsource non-core manufacturing processes to other enterprises, especially SMEs, and trading companies develop channels of distribution for products. As discussed by Whitley (1999: 149–151), the inter-firm relations between typical Chinese family businesses are fluid, flexible, and informal, suggesting that firms are unwilling to maintain a long-term risk-sharing commitment. However, survey results show that the majority of the sampled firms in Zhejiang maintain long-term partnerships with suppliers and clients. The average length of time that sampled firms cooperate with suppliers and clients in Zhejiang is 8.23 years. Moreover, 87% and 91% of sampled firms in Zhejiang reported highly stable inter-firm relations with their suppliers and their clients, respectively. Hence, although typical Chinese family-based enterprises,

especially SMEs, are characterized by their mobility of entry and exit, Zhejiang private enterprises, including large firms and SMEs, formed networks of informal long-term commitments.

Employment relations

The employment relations in family-owned and controlled enterprises share similarities with those found by Whitley (1999: 151–152) in his study of East Asian business systems. In typical family-based enterprises, especially SMEs, the senses of obligation and commitment are weakened by the relationship between family members and workers. As family business is characterized by highly concentrated ownership and a high level of exclusivity of ownership, the core group of family members and persons who have strong personal ties with the owner often hold multiple senior managerial posts. Hence, there are fewer promotion prospects for workers who have no personal relationships with the core group of family members, which results in relatively high employee turnover rate in family-based enterprises. In Zhejiang, the annual turnover rate of workers in SMEs is about 20% to 50%, and the turnover rate of skilled workers and managers reached 20% (Jin 2016: 59).

Overall, the highly concentrated ownership of family businesses, and the strong obligation and commitment within the core group of family members, lead to a significant degree of labour mobility.

4.1.2 State sector block

Economic actors are relational and interdependent and embedded in a particular institutional environment, which is composed of “...normative and regulatory pressures exerted on organizations by the state or society” (Swaminathan and Wade 2016: 1). The state sector plays a crucial role in the Chinese transitional economy and the form and extent of state involvement in economic activities substantially influence the formation of the dominant features of the enterprises sector. Following Whitley’s formulation (1999: 47–48), the institutional characteristics will be studied through three institutional factors: the strength of the state, the financial system, and the skill development and control system. As the state implements regulations and policies nationally, a brief introduction of institutional factors at the national level will be presented before further discussion on dominant institutional features in Zhejiang.

The strength of the state

Due to the determining role of the state in regulating and coordinating economic actors, the strength of the state substantially affects the mobility of capital as well as inter-firm relations. The extent of the strength of the state is reflected in market regulations and policies. Since the early 1980s, the central government has carried out market-oriented economic reforms. With substantial support from the central and local governments, the private sector has experienced phenomenal growth. It has played an increasingly crucial role in economic growth, especially in Zhejiang.

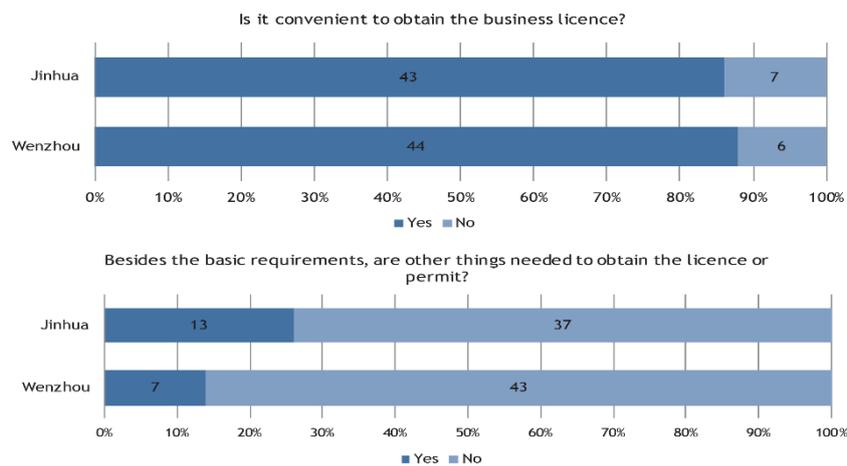
To promote the development of the private sector, the central government largely relaxed the entry barriers for private enterprises, from stipulating the “positive list of market access” in the 1980s to introducing the “negative list of market access” in 2015. The “negative list” is an industry catalogue itemized by the state specifying industries which are prohibited from private or foreign investment or for which such investment is conditional on approval by local authorities (CPC State Council, Government of China 2015). Private and foreign capital can invest in industries and sectors which are not on the list, without administrative approval by local governments (*ibid.*). In other words, “everything which is not forbidden is allowed”. The implementation of the “negative list” has not only largely removed restrictions on market access for private enterprises and FDI, but has also greatly streamlined the administrative processes of local governments. The Zhejiang government had already introduced the “negative list” in early 2014, to remove restrictions on market access and simplify administrative procedures (Xu 2014).

At the same time, in order to encourage startups, the central government carried out a reform of the business registration system, which significantly simplified and streamlined the registration procedure for the incorporation of a new company. Based on the 2005 version of Company Law, registered capital — an amount of capital contributions by shareholders — is required for incorporating a new company with the local Administration for Industry and Commerce (AIC)⁸ (Standing Committee of the National People's Congress, Government of China 2005). The state specified that the initial amount of capital contribution should be no less than 20% of the total amount of the company's registered capital, and the rest of the amount should be paid within two years (*ibid.*). A business licence, organization code certificate, tax registration certificate, social security registration certificate, and statistical registration certificate were also required for starting a new business (*ibid.*).

In the latest version of Company Law (2013), the requirement of the minimum amount of registered capital and its due has been removed (Standing Committee of

the National People's Congress 2013). In 2016, the central government also integrated all certificates and the business licence into one consolidated business licence (CPC State Council, Government of China 2016). After the implementation of the new business registration system in mid-2015 in Zhejiang, the processing times were reduced by 20 working days, and 15 million yuan (1.9 million euro) of application fees saved for startups (Zhejiang Administration for Industry and Commerce, Government of China 2016). The central and local governments have thus put a lot of effort into deregulation of market access and simplification of the registration and administrative procedures in order to support the development of the private sector, which is recognized by the surveyed enterprises in Zhejiang.

Figure 4.3
Permit system in Zhejiang



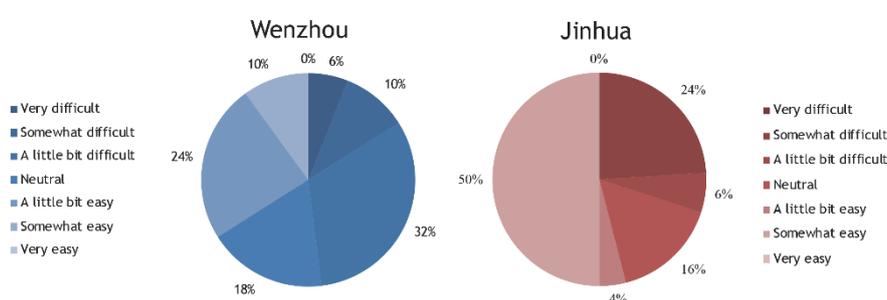
Source: Own survey results (2015-2016)

Figure 4.3 shows data collected from two questions: is it convenient to obtain the business licence; and, besides the basic requirements, are other things needed to obtain the licence or permit? Figure 4.3 shows that about 87% of total sampled enterprises in Zhejiang responded that applying for a licence or certification is convenient. Negative responses that were received came mainly from industries that require higher national standards in accessing the market, such as the manufacture of cars, medicines, machinery, tobacco, and food. The Figure also shows that about 80% of sampled enterprises in Zhejiang reported that “no” specialized requirements are needed to obtain a business license.

Data were also collected on the difficulty of accessing the market, with responses ranked from very difficult (labelled 1) to very easy (labelled 7). About 48% of

sampled firms in Wenzhou stated that it is difficult to start a new business, while 34% of firms had a contrary opinion, and 18% of respondents were “neutral”. About 54% of sampled firms in Jinhua thought that entering the market is relatively easy, and 30% of enterprises claim there are obstacles in starting a new business (Figure 4.4).

Figure 4.4
Opinions on the difficulty level of accessing to market in Zhejiang



Source: Own survey results (2015-2016)

Hence, to understand the opinions of the sampled firms on the restrictions to market access, questions were asked about entry barriers, as shown in Table 4.3.

Table 4.3
Entry barriers in Zhejiang

	<i>Number of reports</i>
Application process for licence	3
Application process for permit or qualification	3
Specific prescribed requirements or political discrimination for private enterprise	2
Registered capital	1
Commercial credit	1
Manufacturing technique	18
Requirement on sanitation certification and technique and equipment for environmental protection	19
Regional protectionism	0
Monopolies	4
Intense competition	64

Source: Own survey results (2015-2016)

As shown in Table 4.3, 64% of sampled firms in Zhejiang claimed that intense competition, rather than market regulation, is the major obstacle for enterprises entering the market. For example, Jinhua is the largest site for mahogany furniture production in China, with more than 60% of mahogany furniture in China being manufactured there (Jinhua Government 2017). The zeal for real estate investment has driven up the demand for mahogany furniture, and manufacturers in Jinhua quickly dominated the domestic market for high-quality luxury furniture. They report finding it easy to access the market. On the other hand, as manufacturing has gradually moved to the Chinese interior, enterprises in Wenzhou have encountered a shrinking market size for manufacturing textiles, apparel, and footwear. These firms found it less easy to access the market than firms in Jinhua. Enterprises in Zhejiang also mentioned difficulties in mastering manufacturing techniques and in meeting the requirements of environmental protection; both of these ranked much higher than market regulation and policies as obstacles restricting firms in entering the market.

Besides deregulating restrictions to market access for startups, the Zhejiang government has provided favourable investment policies, improved infrastructure and public services, and encouraged the establishment of intermediary economic associations with the aim of creating a better business environment to support enterprises and attract investments (see Table 4.4).

Table 4.4
Supporting policies in Zhejiang

	<i>Number of reports</i>
Green Passage scheme for firms	13
Reducing or waiving procedures or prescribed fees	7
Tax concession	25
Local government provided free collateral loans	3
Local government offered funds	27
Local government offered concessional rent for land or equipment	15
Local government offered subsidies for R&D	12
<i>Public services in Zhejiang</i>	
	<i>Number of reports</i>
Convenient transportation	86
Sufficient electricity supply	92
Sufficient water supply	68
Convenient public facilities	3

Source: Own survey results (2015-2016)

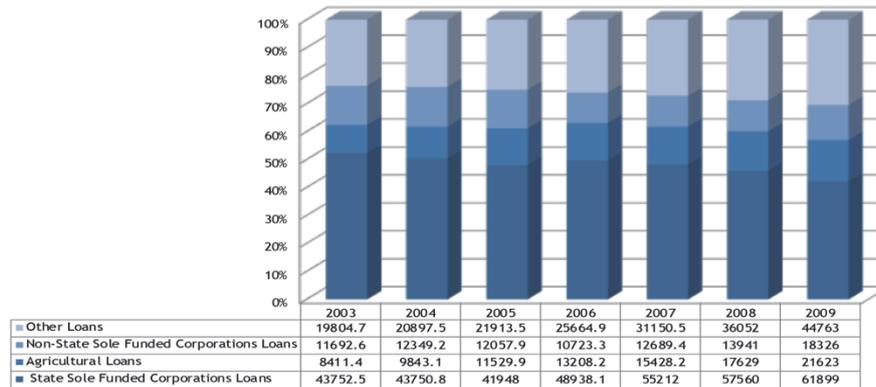
However, in terms of the supporting policies provided by the Zhejiang government, about 44% of the surveyed firms are not eligible for any favourable policies, and only 27% and 25% of the sampled firms have received government funds and tax reduction, respectively. This is because of the predominance of private enterprises in low-tech and low-cost light industry in Zhejiang, only a small proportion of which qualify to benefit from the favourable policies. The opinions about public services provided by local governments show a high degree of satisfaction, especially regarding local transportation and electricity supply.

Overall, the Zhejiang local government is highly supportive of the development of private enterprises, reducing restrictions on market access, simplifying the registration and administrative procedures, implementing favourable policies, improving public services, and encouraging intermediary economic associations. Market barriers, in terms of market regulations, have been largely removed. The obstacles for enterprises in Zhejiang are non-policy factors like market competition and manufacturing techniques. Nevertheless, although the local government provides various favourable policies, because the dominant industries in Zhejiang are mainly engaged in making small consumer goods, only a small number of enterprises qualify for these favourable policies, which shapes a particular feature of business–state relations in Zhejiang.

Financial systems

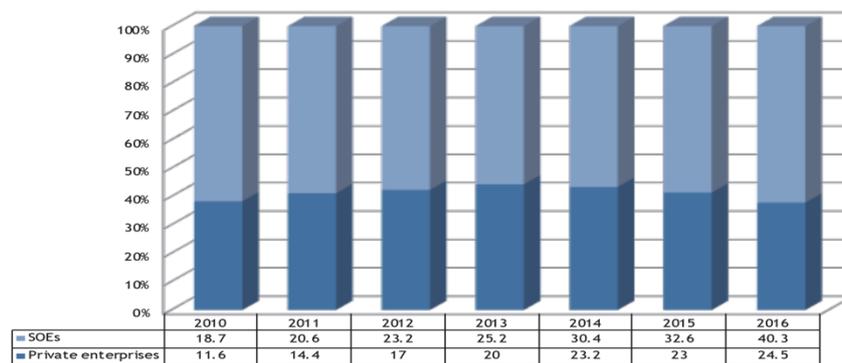
The financial system and the banking system in China are relatively concentrated and regulated. Although state-owned commercial banks⁹ are responsible for their own profits and losses, they still actively support and finance the needs of SOEs, while non-state-owned enterprises have very little access to bank loans.

Figure 4.5
The composition of bank lending 2003-2009 (100 million yuan)



Source: National Bureau of Statistics (2010)

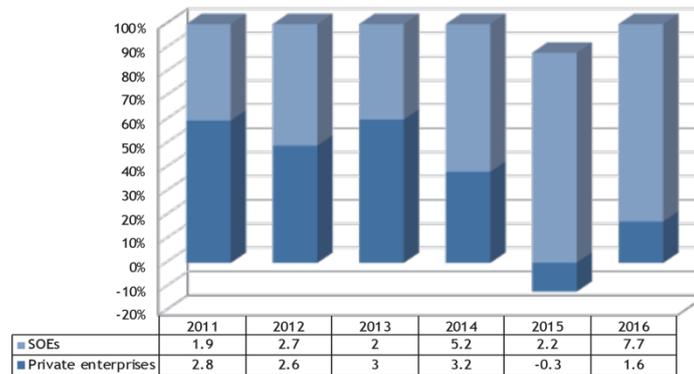
The composition of bank lending 2010-2016 (trillion yuan)



Source: Research report by China Southwest Securities Co., Ltd (2018)

As Figure 4.5 illustrates, SOEs received the most significant amount of bank lending from 2003 to 2016. From 2003 to 2009, bank loans for SOEs accounted for at least 40% of total bank loans, while only 10% of total bank loans went to non-state-funded enterprises through this seven year period (National Bureau of Statistics 2010). With the fast development of the private sector, the demand for capital substantially increased; however, loans for SOEs still comprised about 60% of total bank lending from 2010 to 2016 (Yang 2018).

Figure 4.6
The composition of bank incremental lending 2011-2016 (trillion yuan)



Source: Research report by China Southwest Securities Co., Ltd (2018)

Figure 4.6 looks at the composition of incremental lending from 2011 to 2016, and shows that incremental loans for private enterprises decreased, with an especially sharp drop in 2015. Due to severe problems of overcapacity caused by overinvestment in real estate, the demand for medium and long-term loans largely decreased, which caused a sharp decline in incremental bank lending for private enterprises during this period (The People's Bank of China 2016: 6, Yang 2018). Hence, the banking system imposed severe constraints on the development of the private sector.

When the Shanghai and Shenzhen Stock Exchange was established in the early 1990s, the initial purpose was to seek funding mainly for SOEs. The quota system was adopted, in which listed firms should be selected or recommended by provincial governments (Lin and Li 2005). Hence, most of the listed enterprises were SOEs (ibid.). To promote the listing of private enterprises on the stock market, the quota system was replaced by the confirmation system. Enterprises which are waiting to be listed should report to the Securities Regulatory Authority under the State Council for verification (ibid.). Additionally, to support private enterprises (especially SMEs) in raising funds, the Growth Enterprises Market Board was launched in 2008, and in 2012 the National Equities Exchange and Quotations, also known as the New Third Board, was established. Although the number of non-state-owned listed enterprises has increased, the percentage of direct financing to such firms in China accounted for only 16% in 2018, which is still considered low (Zhao 2018).

Overall, compared with SOEs, private enterprises face more difficulties in accessing bank loans and the capital market, and rely on credit-based sources of

financing. This conclusion is confirmed by the survey results on the sources of finance and the degree of difficulty in accessing finance. The data show that sampled firms in Zhejiang rely heavily on self-financing and bank loans, and hardly raise funds in the capital market (Table 4.5).

Table 4.5
Sources of finance in Zhejiang

	Number of reports
Internal funds/retained earnings	97
Owners' contribution or issued new equity shares	2
New debt issuances including commercial paper and debentures	3
Bank borrowing	66
Purchases on credit from suppliers and advances from customers	12
Borrowing from informal financial institutions	11
Borrowing from friends or relatives	17
Local government investment	1
Local government loan	1
Foreign funds	0

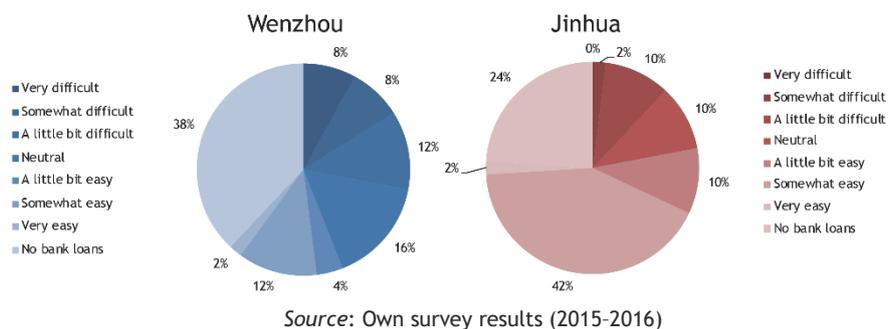
Source: Own survey results (2015-2016)

Table 4.5 shows that, besides internal funds and bank loans, sampled firms in Zhejiang also tend to borrow money from informal financial institutions and friends or relatives. With the boom of the private sector in Zhejiang since reform, the high demand for capital has stimulated the surge of informal finance due to the difficulty in accessing bank loans. The large volume of cash transactions between private enterprises gradually formed an informal financial market. The estimated volume of informal finance in Zhejiang was about 150 billion yuan (19.3 million euros) in 2008 (Shao, Y. 2008). In 2011, the Wenzhou financial crisis hit the informal financial market hard, which resulted in a large number of enterprises going bankrupt. This led to local government adopting various measures to support enterprises in accessing finance. In 2012, the Zhejiang government started to regulate the informal financial market. By 2014, 11 private financial services centres had been set up, and 12,072 financial institutions had been established (General Office of Zhejiang Provincial Government 2015). At the same time, as a way of supporting private enterprises, local governments also began to help enterprises to list on the stock market, with the aim of achieving 30% of direct financing in Zhejiang by 2020 (ibid.).

Since bank loans represent the major financing method in Zhejiang, the opinions of the sampled firms were collected on the difficulty of accessing bank loans, ranked from very difficult (labelled 1) to very easy (labelled 7). In Wenzhou, 38%

of sampled firms have no access to bank loans, and 28% of sampled firms reported a certain degree of difficulty, all of which are SMEs. By contrast, in Jinhua the largest number of sampled firms (42%) stated that it was “somewhat easy” to access bank loans, while 36% of sampled enterprises in Jinhua failed to get loans or found some difficulty in accessing loans (Figure 4.7).

Figure 4.7
Opinions on the difficulty level of accessing bank loans in Zhejiang



To sum up, most of the private enterprises in Zhejiang have little access to capital markets and rely heavily on credit-based sources of financing, including informal financial institutions or loans from family and friends. The financial system in Zhejiang can be labelled as predominantly credit-based.

The skill development and control system

(1) Skill development

The generalist education system is applied as the basic education system in China. As discussed by Whitley (1999: 50), under this type of education system, vocational training and educational organizations are often poorly funded and have low social prestige. In China, vocational education has also been marginalized within the education system, and graduates from vocational training institutions gain limited recognition in the labour market. In an attempt to eliminate discrimination, the central government stipulated that local governments should take over the management of vocational training organizations and issue certificates for graduates (Standing Committee of the National People’s Congress, Government of China 1996). The central government also promotes the cooperation of enterprises and vocational educational institutions to train students and establish a modern apprenticeship system (Ministry of Education, Government of China 2018).

Although the condition of vocational education has improved, compared with general compulsory and higher education, vocational training is still in a considerably inferior position. Inadequate inputs and poor school management substantially constrain the development of vocational education across China, as well as in Zhejiang.

As discussed previously, family-owned and controlled enterprises, especially SMEs, are typical of Zhejiang's economy. Family-based enterprises have very concentrated ownership and a high level of exclusivity. Hence, non-family workers tend to be highly mobile, due to the weak sense of obligation and commitment to the firm. Furthermore, since enterprises in Zhejiang are mainly in low-cost and low-tech industries, their owners do not usually provide professional training to workers.

(2) Trade Unions

Based on the Trade Union Law of 1992, the basic function and duty of trade unions is to:

...safeguard the legal rights and interests of the employees... through equal negotiation and collective contract system... including guiding signing labour contracts; solving labor disputes; providing training and organizing leisure activities; caring and helping employees who have difficulties; etc. (Standing Committee of the National People's Congress, Government of China 2009)

The trade union law specifies that enterprises with 25 or more workers may establish a trade union; however, less than 50% of private enterprises in China have founded trade unions (Qiao and Qian 2010). Moreover, 90% of the chairpersons of the trade unions also serve in other administrative positions in the firm (Wu 2010). Based on the report, the trade unions which have been founded in private enterprises account for 68.9% of the total number of trade unions in Zhejiang (Yu et al. 2016). About 80% of trade union members hold multiple positions in their firms (ibid.). About 78.4% of the problems that the trade union tackled in Zhejiang were housing and education problems (ibid.). Overall, the role of trade unions is mainly to support and improve workers' social welfare.

To sum up, Zhejiang local government has been highly supportive of the development of private enterprises through reducing the restrictions to market access, simplifying the registration and administrative procedures, providing favourable policies, improving public services, and encouraging intermediary economic associations. Market barriers have been largely removed. Hence, market regulations are not considered as obstacles for firms in entering the market. The financial system

in Zhejiang can be labelled as predominantly credit-based. Most of the private enterprises in Zhejiang have little access to capital markets and rely on credit-based sources of financing. Many firms in Zhejiang also seek funds through informal financial institutions. Although the central government generally supports vocational education nationally, vocational training is still considered inferior to academic education. In Zhejiang, inadequate inputs and poor conditions for the management of schools have substantially limited the development of vocational education. Additionally, employee training has been largely ignored in Zhejiang.

4.1.3 State-business relations block

The enterprise sector and the state develop interdependently. The dominant features of the enterprises sector and the state sector collectively shape a particular state–business relationship. This relationship can be observed not only in formal and informal collaboration between the state and enterprises, but also in the degree of acceptance of intermediary economic associations and the extent of dependence of enterprises on the state. In this section, the state–business relationship in Zhejiang is presented.

Business-government collaboration

The data on formal and informal collaboration between the state and enterprises were collected through two questions: (a) whether firms have collaborated with local authorities, and (b) what types of activities they have conducted. The survey showed that 91% of sampled firms in Zhejiang have no collaboration with local government.

Table 4.6
Business-government collaboration in Zhejiang

	Infrastructure construction	Market development	Technical cooperation	Research and development of products	Training and education
Number of reports	5	2	4	4	4

Source: Own survey result

Only nine firms in Zhejiang reported collaborative activities (Table 4.6). Infrastructure construction sees the most frequent state–business collaboration, following by technical cooperation, R&D activities, and vocational training and education.

These findings are also confirmed by the public–private partnership (PPP) projects launched in Zhejiang since 2016: infrastructure construction projects make up 53.8% of the total number of PPP projects, while education projects account for 6% in Zhejiang (Ministry of Finance, Government of China 2017). Overall, infrastructure construction is the most common type of PPP project, while very few collaborative activities are observed in market development, especially for SMEs in Zhejiang.

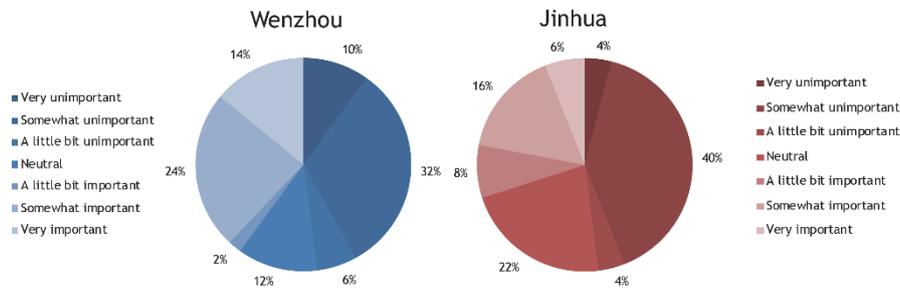
Intermediary economic associations

Industry associations are a long-standing phenomenon in China, and since the economic reform, the number of industry associations has increased rapidly. Intermediary associations in China are not directly involved in regulating market entry and exit, but mainly provide policy consultation services, share information, and protect the legitimate right and interests of enterprises. Both central and local governments have actively encouraged and supported the establishment of industry associations, and in 2007 the State Council issued an official document to promote the development of intermediary associations. However, due to failures of management, most of the intermediary associations in China do not function effectively. About 51% of sampled firms in Zhejiang have joined local industry associations; however, nearly all of the sampled firms reported that the support received from associations is limited.

The degree of dependence of firms on local governments

The nature of state–business relations can also be gleaned by observing firms' reliance on local governments to help them develop. The importance of local governments in enterprises' development is ranked from very unimportant (labelled 1) to very important (labelled 7).

Figure 4.8
Opinion on the importance of local government in enterprise development in Zhejiang



Source: Own survey results (2015-2016)

Figure 4.8 reflects the opinions of the importance of the role of local governments in enterprise development. In Zhejiang, 48% of sampled firms stated that local governments are unimportant to enterprise development. The option of “somewhat unimportant” was the most reported response, accounting for 32% in Wenzhou and 40% in Jinhua. A neutral response was reported for 12% in Wenzhou and 22% in Jinhua. Notably, large enterprises tend to deem the role of local government in firm development to be more important. In short, enterprises in Zhejiang, especially SMEs, showed limited dependence on local governments to support their business.

The survey also investigated incentives to enter the market. As Table 4.7 shows, what could be described as non-policy incentives were considered more vital than policy incentives to private capital entering the market in Zhejiang.

Table 4.7
Entry incentives in Zhejiang

	<i>Numbers of reports</i>
Simplified application process for licence	7
Permit and qualification	7
No specific prescribed requirements or political discrimination	6
Reasonable threshold of registered capital	17
No specific requirement on commercial credit	2
Attainable requirement for manufacturing technique	17
Attainable requirement for sanitation certification and technique for environmental protection	2
No regional protectionism	2

Fair market competition	23
High market potential	48
Family business	7
Familiar with business	32
A complete industrial chain	5
Favourable investment policy	4
State development plan	5
Supporting enterprises	4
Abundant resources	1

Source: Own survey results (2015-2016)

As reported by 48% of sampled enterprises, high market potential is the major incentive for businesses to enter the market. Familiarity with the business was mentioned by 32% of firms in Zhejiang as the main reason for starting a new business. Fair market competition, reasonable requirements for registered capital, and attainable techniques are also seen as incentives for startups. As discussed above, although the local government provides various favourable policies, these are subject to certain conditions like firm size, methods of production, type of industries, etc. Family-based SMEs that produce semi-finished low-cost and low-tech products are rarely eligible, and can seldom access the benefits from favourable policies designed to promote large local core firms and new emerging high-tech industries. Hence, it is non-policy incentives that are the major consideration of private capital when entering the market in Zhejiang, and non-policy related factors that form the major constraints in business operation.

Overall, compared with policy incentives, enterprises in Zhejiang are more attracted by non-policy incentives provided by the Zhejiang government, which explains the attitude of firms towards the role of local government in firms' development.

4.2 The existing Yunnan business system

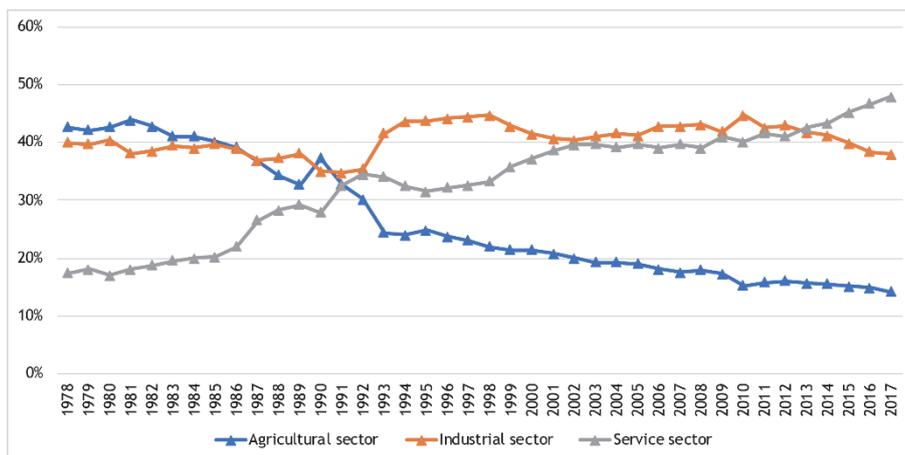
Natural resource endowment is one of the important factors in shaping regional economic and industrial structures and configurations. If natural resources are used and managed properly and efficiently, they will largely promote local economic growth. Yunnan has 6.2 million hectares of cultivated land, accounting for 4.6% of the total cultivated land of China, and ranking Yunnan 8th of the provinces and autonomous regions of China. The average cultivated land per person in Yunnan (0.13 hectares) is much higher than the national average (0.096 hectares per person)

(National Bureau of Statistics 2017). Being restricted by geomorphological features, the gross output of the agricultural sector in Yunnan was only 363.3 billion yuan (45.9 billion euro) in 2016, representing 3.24% of the total national gross output from agriculture (ibid.). However, Yunnan has the largest tobacco-growing and manufacturing base (Qijing) in China, and as the leading cigarette-producer, Yunnan yielded 0.91 million tons of tobacco in 2016, accounting for 33.3% of the total output of tobacco in China (ibid.). The tobacco industry thus plays a crucial role in Yunnan's economic development.

Yunnan is also well-known for its large reserves of mineral resources, with 142 types of mineral resources having been discovered (Yang, S. 2013). Among 31 provinces and autonomous regions, Yunnan ranks in the top three for its reserves of 25 types of mineral, and top ten for its reserves of 54 types of mineral resources (ibid.).¹⁰ The potential value of mineral deposits in Yunnan was estimated at 3.06 trillion yuan (0.39 trillion euro) by the end of 1988 (ibid.).

Thus, the resource endowments of Yunnan are characterized by low population density (see Chapter 1), sufficient cultivated land, and rich natural resources. Although geographical features have restricted the development of the agriculture sector, Yunnan's economy relies heavily on resource-dependent industries: the tobacco industry (including tobacco growing and cigarette making), the metallurgical and mining industry, chemical industry, tourism etc., have all played leading roles in the Yunnan economy.

Figure 4.9
The composition of GRP in Yunnan 1978-2017 (%)



Source: Yunnan Provincial Bureau of Statistics 2018

Figure 4.9 shows that in 1978, the agricultural sector contributed 42.7% to the GRP of Yunnan, while 39.9% came from the industrial sector, and 17.4% from the service sector (Yunnan Provincial Bureau of Statistics 2018). In the following eight years, agriculture continued to make up the largest part of total GRP in Yunnan, before its share began to decline. In 1987, the industrial sector surpassed the agricultural sector, accounting for 36.81% of total GRP (*ibid.*). After a significant increase in the 1990s, the contribution of the industrial sector to the GRP of Yunnan remained steady at around 40% (*ibid.*). At the same time, Figure 4.9 clearly shows a significant growth in the service sector, which surpassed the industrial sector in 2013 and accounted for 47.83% of Yunnan's GRP in 2017, while the agriculture and industrial sectors provided 14.28% and 37.89% respectively (*ibid.*).

As previously discussed, the service sector in China has become increasingly important in the process of transition to a post-industrial economy. The trend for the share of the industrial sector to first increase and then decline, while the share of the service sector rises, also can be observed in Yunnan. According to a report on Chinese industrialization, the composite score for industrialization of Yunnan was 55 in 2015, putting it into the category of semi-industrialization, while the national composite score was 84 and was categorized as later-industrialization¹¹ (Huang and Li 2017). The process of industrialization of Yunnan thus lags far behind the national level, which implies that the rise and fall of the industrial sector share in Yunnan's GRP may not directly reflect the actual level of industrialization and the main driving force of the Yunnan economy.

The service sector of Yunnan made up just 1.8% of the service sector in China, ranked 23rd among provinces in 2017 (Yunnan Provincial Bureau of Statistics 2018). The relationship between the industrial sector and (part of) the service sector in Yunnan is mutually reinforcing, which means that the development of producer services substantially relies on a solid manufacturing base. The poor performance in the manufacturing sector largely hinders the development of producer services in Yunnan, so that the increasing share of the service sector in GRP mostly comes from non-producer services, such as wholesale and retail, hotel and catering services, travel and recreational services. The wholesale and retail trade services make the largest contribution, accounting for 20% of value-added in the service sector in 2017 (*ibid.*). The inadequate provision of producer services also restricts the development of the industrial sector and its ability to move to the level of later-industrialization, which in turn widens the gap between the well-developed and less-developed regions.

With various natural and cultural tourism resources, tourism is the fastest-growing industry in the service sector in Yunnan, generating 692.2 billion yuan (90.4 billion euro) of revenues in 2017, equivalent to 7.58% of total tourism revenues in China (Yunnan Provincial Bureau of Statistics 2018, National Bureau of Statistics 2018). However, the tourism revenue of Yunnan is far lower than provinces in the eastern coastal region, including Zhejiang,¹² as well as the adjacent provinces in southwest China. The main source of tourism revenues in Yunnan was ticket revenue, which accounted for 40.13% of total tourism revenue, followed by the sale of tourism products (28.6%), while the income accruing from recreation in tourism only accounted for 0.17% (Lou et al. 2017). It is worth noting that tourism products — the second-largest source of tourism revenues — are mostly manufactured in Yiwu, a county city in Jinhua that has the largest tourism products manufacturing industry. Heavy dependence on ticket sales revenue and the underdevelopment of the related hospitality industries are the main obstacles to the development of tourism in Yunnan.

In short, the service sector shows a continuous upward trend in the share of GRP of Yunnan. However, this expansion mainly comes from traditional non-producer services such as wholesale and retail, and tourism, whereas the producer services which integrate and boost the manufacturing sector in Yunnan still lag behind. The growth of the service sector in Yunnan is not following a “natural” process of transition from a more mature industrial sector. As emphasized in the Industry Development Plan of Yunnan for 2016–2025, the industrial sector is still the key driver of economic growth in Yunnan (Yunnan Provincial Government, Government of China 2016: 6) Although the industrial sector in Yunnan has underperformed in the market in recent years, the revenues generated by that sector have still substantially outstripped other industries, reaching 1.2 trillion yuan (0.16 trillion euro) in 2017 (Yunnan Provincial Bureau of Statistics 2018). In the past four decades, the industrial sector has been the major driving force of the Yunnan economy. Hence, in order to understand the dynamic path of Yunnan’s economic development, the manufacturing sector is the main focus of this research.

The industrial sector in Yunnan is composed of a wide variety of products from both light and heavy industries, including cigarettes, processed agricultural products, steel, and chemical products. Since 2004, the value of output generated by heavy industry has been approximately double that of light industry (Yunnan Provincial Bureau of Statistics 2018). From 1978 to 1996, the share of the output of light industry in the total output of the industrial sector had increased from 43% to 53.9%,

but it then declined sharply, dipping to 25.2% in 2008 (ibid.). In 2017 the output of light industry made up 34.8% of total output, while heavy industry accounted for 65.2% (ibid.). As the largest industry and employment generator of the Yunnan economy, the output and the number of employed persons in the mining and metallurgical industry reached 314 billion yuan (41 billion euro) and 0.26 million persons, accounting for 31.1% of the total output of the manufacturing sector and 33.1% of the total number of employed persons in 2017 (ibid.). The output in the tobacco industry reached 153.4 billion yuan (20.1 billion euro), accounting for 16.5% of the total output of the manufacturing sector in 2017 (ibid.). The chemical and allied industry, the second-largest employment provider (72,500 employed persons), contributed the third-largest share (8.9%) of the total output of the manufacturing sector in 2017 (ibid.). Overall, resource-dependent industries such as tobacco growing and cigarette making, the metallurgical and mining industry, and the chemical industry dominate in the manufacturing sector in Yunnan.

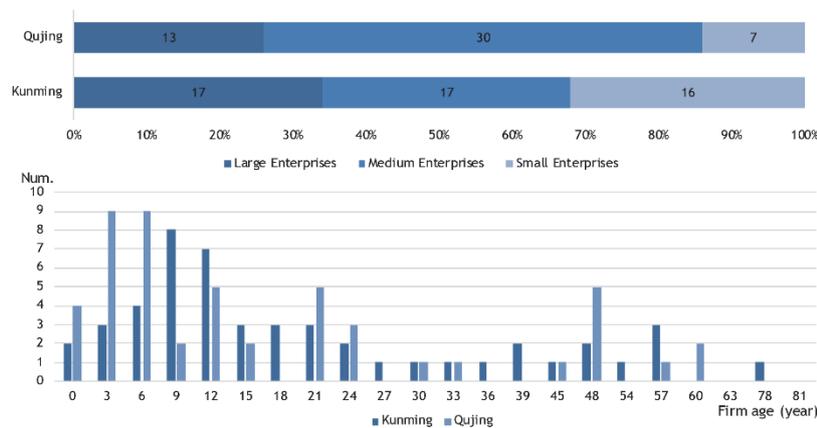
In Yunnan, 17.7% of the total number of industrial enterprises (ads) are state-owned and state-holding industrial enterprises, which generated 644.6 billion yuan (84.3 billion euro) of output, accounting for 55.8% of the total output of the industrial sector in 2017 (ibid.). Non-state-owned and non-state-holding industrial enterprises (ads) made up 78.4% of the total number of industrial enterprises with output at 460.5 billion yuan (60.2 billion euro), accounting for 41.7% of the total output, while the output of foreign-funded industrial enterprises (ads) generated only 4.4% of total output in 2017 (ibid.). In 2017, there were 96 large-sized industrial enterprises (ads); they had the biggest output, accounting for 39% of the total output of the industrial sector, followed by small (36.5%) and medium (24.3%) industrial enterprises (ads) (ibid.).

Overall, large domestic enterprises, especially SOEs, contribute the largest portion of total output in Yunnan. The resource-dependent industries are the key driving force of the Yunnan economy.

The 100 sampled enterprises in Yunnan reflect the features described above. Domestic enterprises are the most prevalent type of sampled enterprises. Amongst the sampled firms in Qujing and Kunming, private enterprises account for 66% and 60% of the total (respectively), with 29 SOEs involved in the survey across the two cities. Most of the sampled firms in Yunnan engaged in highly resource-dependent heavy industries. In Qujing, 34 out of 50 sampled firms were engaged in chemical and metallurgical products manufacturing, building material manufacture, and machinery and equipment manufacturing. Similarly, in Kunming, machinery and building material manufacturing were the two most prevalent industries in the survey,

representing 30% and 18% (respectively) of sampled firms. Of the sampled SOEs in Yunnan, most work in the metallurgical, machinery and equipment, automobile, tobacco, and building materials industries.

Figure 4.10
Firm size and firm age of sampled enterprises in Yunnan



Source: Own survey results (2015-2016)

According to the standard division of size of enterprises issued by the central government (see note 6), and applying the criterion “total assets”, the numbers of small, medium and large-sized enterprises were equally distributed at about 30% for each size in Kunming, while in Qujing, the number of medium-sized enterprises accounts for the largest proportion at 60%, following by the large-sized firms at 26% (Figure 4.10). It is noteworthy that 12 out of 16 large-sized enterprises in Kunming are SOEs, and 10 out of 12 SOEs in Qujing were categorized as large or medium-sized firms. The total assets of sampled SOEs account for 91.7% of the total assets of sampled firms in Yunnan. The average firm age in Yunnan is 22.28 years (Figure 4.10). Sampled firms in Kunming have the highest average firm age among the four cities in the survey, at 24.58 years, and half of the sampled firms in Yunnan have been established for more than 18 years, especially SOEs.

Overall, the sampled results echo the features of industrial structures based on the statistical yearbook. Large-sized enterprises, especially SOEs, in highly resource-dependent and capital-intensive industries, dominate in the Yunnan economy.

4.2.1 Enterprises sector block

Ownership coordination

As noted above, the Yunnan economy is dominated by large enterprises, especially SOEs. From the early 1980s, the central government initiated a programme of SOE reform by introducing a factory manager responsibility system (1981), converting SOEs into joint-stock companies (1992), and diversifying alternative sources of funds including private investment and promoting mixed ownership in SOEs (2003) (CPC Central Committee, Government of China 2003). By 1988, 98% of SOEs in Yunnan had established the factory manager responsibility system (Li, L. 2014). In 2002, about 70% of large SOEs and 80% of medium and small-sized SOEs diversified their source of capital so that they were no longer wholly owned by the state (ibid.). And by the end of 2007, 2,318 SOEs, accounting for 98.6% of SOEs in Yunnan, had completed the conversion into joint-stock companies (ibid.).

However, a survey studying the capital structure of 3,525 SOEs in Yunnan in 2015 found that state-owned capital accounted for 99.2% of total capital, while private capital represented only 0.7% of total capital (Lyu 2016: 70). Hence, the majority of SOEs in Yunnan still have a single source of funds. More importantly, although nearly all the SOEs had converted into joint-stock enterprises a decade or more ago, state shareholders still retain their dominant roles in corporate management. Company Law dictates that directors and supervisors of joint-stock companies shall be elected by shareholders' meetings (Standing Committee of the National People's Congress, Government of China 2013), but the central government established the State-owned Assets Supervision and Administration Commission (SASAC) in 2003 to appoint executive directors, and supervise and approve companies' major decisions. Research in 2010 found that in Yunnan, about 59% of executive directors in large SOEs and 40.1% in medium-sized SOEs were appointed by the local SASAC (Han 2010: 28). In 52.8% of Yunnan's SOEs, the chairperson also served as CEO, and in 73.2% of Yunnan's SOEs, the chairperson or CEO served as secretary of the Party committee (ibid.). Thus, although SOE reforms have been underway for decades in Yunnan, the local authorities retain direct control of SOEs, which exhibit a high degree of concentration of ownership and extensive involvement in enterprises' management.

The development of the private sector in Yunnan has lagged far behind the state sector. Except for a few large private steel, fertilizer, and pharmaceutical companies, the majority (60%) of private enterprises, mostly SMEs, make low-tech and low-cost consumer products such as processed agricultural products (e.g. refined sugar, tea, coffee, and other processed food), paper products, rubber and plastic products

(Lyu 2016: 72). Family-owned and controlled enterprises are the most common type of private enterprise in Yunnan. High levels of ownership concentration, involvement in running firms, risk-sharing and commitment, and exclusivity are typical of the family-based private enterprises in Yunnan.

Similar to the Zhejiang case, in Yunnan, ownership-based vertical integration and horizontal diversification are relatively weak in SMEs, and M&A cases are quite rare (Table 4.8). Compared with SMEs, large enterprises, especially SOEs, are vertically integrated and horizontally diversified, and M&A is much more common.

Table 4.8
Firms have (been) merged or acquired (by) other companies

	<i>Firms have merged or acquired other companies</i>		<i>Firms have been merged or acquired by other companies</i>	
	<i>Qujing</i>	<i>Kunming</i>	<i>Qujing</i>	<i>Kunming</i>
Number	12	16	10	7
Time	2010: 7	2010: 6	2010: 4	2010: 2
	2000-2010: 4	2000-2010: 7	2000-2010: 4	2000-2010: 4
	1990-2000: 1	1990-2000: 3	1990-2000: 2	1990-2000: 1
Firm types	SOEs: 4	SOEs: 5	SOEs: 5	SOEs: 2
	Private Enterprise: 8	Private Enterprise: 11	Private Enterprise: 4	Central state-owned enterprise: 1
			Joint venture: 1	Private Enterprise: 4
Firm size	SMEs	SMEs and large	SMEs and large	SMEs and large
Product	Same: 7	Same: 11	Same: 6	Same: 5
	Not same: 5	Not same: 5	Not same: 4	Not same: 2
Payment methods	By cash: 4	By cash: 10	By cash: 1	By cash: 4
	By stock: 6	By stock: 10	By stock: 10	By stock: 4
	Other way: 2			
Local government intervention	Very supportive: 5	Very supportive: 7	Very supportive: 5	Very supportive: 6
	Somewhat supportive: 4	Somewhat supportive: 5	Somewhat supportive: 4	No intervention: 1
	No intervention: 3	No intervention: 4	No intervention: 1	

Source: Own survey results (2015-2016)

Sampled enterprises in Yunnan reported 45 cases of M&A mainly in the metallurgical, chemical, and pharmaceutical industries, and equipment manufacturing. Of these, 28 involved large and medium-sized enterprises, including 10 SOEs and five former SOEs, actively merging with other companies. Meanwhile, 19 sampled firms, including seven SOEs and four former SOEs, reported that they had been subject to mergers by other enterprises. The main reason for ownership-based transactions is to integrate supply chains, expand production factories, and upgrade production techniques and equipment; however, five firms reported their aim was to reorganize state-owned assets; four wanted to shift from manufacturing military products to civilian products; and two mergers were aimed at bailing out bankrupt SOEs.

As discussed above, the state promoted ownership-based integration, mergers, and acquisition for restructuring SOEs, including converting SOEs into joint-stock companies, bailing out loss-making and bankrupt SOEs, and reorganizing military use SOEs to making civilian products. In 2003, the Yunnan government began to promote the restructuring of SOEs in 15 sectors, mainly in heavy industry (Li, L. 2014). By the end of 2007, 877 enterprises, including private enterprises in Yunnan, had been involved in restructuring of SOEs by M&A activities (*ibid.*). Hence, large numbers of M&A activities in Yunnan were initiated by local governments, as confirmed by the survey results. As stated by sampled firms, local governments were supportive in 36 out of 45 M&A cases.

Large enterprises in resource-dependent and capital-intensive industries are active in vertical integration. As reported by sampled firms, they tend to combine the management of some key production processes in their firms to reduce transition costs and guarantee and maintain the supply of input. Horizontal diversification also prevails in large enterprises, especially SOEs, but less in SMEs. Due to the substantial capital and technical investments required, most large enterprises in Yunnan strategically diversify their business into related sectors to reduce the risk of market volatility. For instance, a large SOEs in Qujing has diversified into chemical fertilizer, organic chemicals, and fibreglass manufacturing. Besides manufacturing medicines, one of the regional core pharmaceutical SOEs in Kunming also makes pharmaceutical-related everyday household items. Due to the real estate investment craze, large enterprises in Yunnan, including SOEs, also actively invest in the property and hotel sectors. Overall, with the support of the local government, ownership-based integration and diversification in large enterprises, especially SOEs, is usually formal and strategic, and specializes in firms' and local resources, although it can sometimes be "opportunistic". Integration and diversification are much less common in SMEs in Yunnan.

Non-ownership coordination

In Yunnan, a large number of resource-based industrial clusters have developed around large local core firms, especially SOEs. The data on the density of clusters, based on Laine's criteria (Nauwelaers 2003: 9), show a certain degree of concentration of sampled firms (Table 4.9). However, as the size of, and land area occupied by, enterprises in heavy industry are much larger than those in light industry, Laine's criteria do not apply in the Yunnan case.

Table 4.9
Density criteria in Yunnan

	Qujing	Kunming
Are there at least 5 firms with the same business activity in city	15	26
Average number of same business within 1km ²	1	4

Source: Own survey results (2015-2016)

By using location quotient (LQ), the level of industrial specialization and the concentration level of sectors in Yunnan compared to the national average can be measured.¹³ The LQ of 14 out of 36 sectors in Yunnan is greater than 1 (Zhu and Liu 2014). The tobacco industry has the highest LQ at 17.7, the LQ of the metallurgical industry is around 3, and the LQ of the mining, pharmaceutical, and chemical industries is about 1.5 (ibid.). Notably, 9 out of 14 sectors are highly resource-dependent industries (ibid.), suggesting that resource-based and capital-intensive industries achieve a dominant position in the Yunnan economy.

Market access is much more difficult in the tobacco and pharmaceutical industries, as well as heavy industry in Yunnan, than in other sectors, in terms of required capital, techniques, and labour force. Thus, private enterprises, especially SMEs, struggle to enter the market due to the higher entry requirements, while enterprises in the supply chains tend to maintain long-term partnerships. Survey results show that the majority of the sampled firms in Yunnan maintain long-term partnerships with suppliers and clients. The average length of time that sampled firms cooperate with suppliers and clients in Yunnan is 12.5 years, with 96% and 92% of sampled firms in Yunnan reporting highly stable inter-firm relations with their suppliers and their clients, respectively. Notably, as the "commanding heights of the economy" (Whitley 1999: 147), the state directly or indirectly influences enterprises in heavy industry, especially SOEs. Sampled SOEs reported that as regional core firms, they undertake semi-political tasks in assisting local governments to support unprofitable

and loss-making SOEs to prevent them from going bankrupt. Regional core firms usually outsource parts of the manufacturing process to these loss-making firms, especially SOEs, and provide them with distribution channels for their products.

Except for the well-developed tobacco and pharmaceutical industries, many regional core firms, including SOEs, in heavy industry are still manufacturing simple products. Hence, the supply and production chains are comparatively short. In order to survive in the competitive market, firms in heavy industry that make intermediate products are keen to establish long-term risk-sharing commitments with regional core firms.

Employment relations

As previously discussed, although nearly all the SOEs converted into joint-stock enterprises decades ago, the state retains a high level of involvement in the management of these enterprises. The central government specifies that directors in SOEs should not be part of administrative rankings used for civil servants, as employees of government departments (CPC Central Committee, Government of China 1999), but in practice most directors still retain their administrative ranking (Han 2010). Hence, in some sense, a senior position in an SOE can be considered a government occupation. As senior managers in SOEs are appointed by the local SASAC, with administrative rankings, the prospects for promotion provide directors with incentives to maximize the firm's profits (Cao et al. 2011). Theoretically, the firm's performance is a measurable criterion related to promotion, which enhances the commitment of managers to spread risk and maximize the firm's interests.

However, this incentive mechanism is inoperative. In reality, seniority is the primary measurable criterion of promotion. Moreover, as government employees, income, social welfare, and benefits are guaranteed. Hence, there is no direct link between employees' income and firms' performance. As long as SOEs survive in the market, employees' income is largely unaffected by firms' performance. Therefore, occupations in SOEs are regarded as "a lifetime guarantee" and the degree of labour mobility in SOEs is lower than in private enterprises.

4.2.2 State sector block

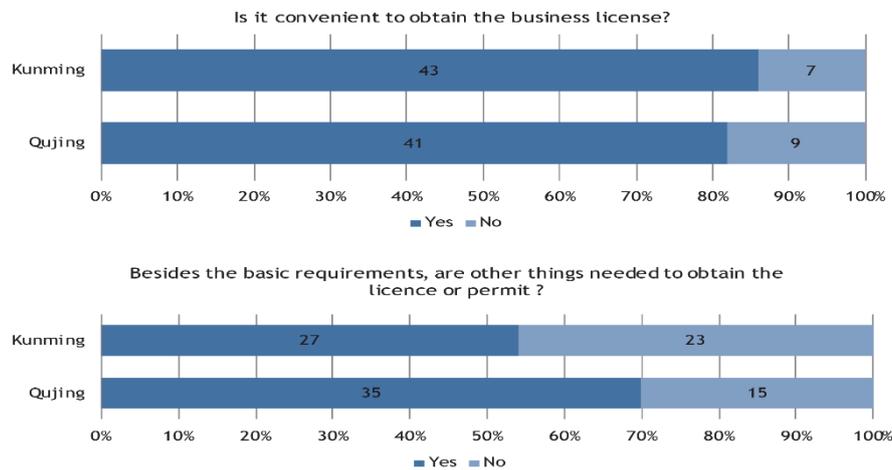
To understand the role of the state sector in affecting economic organizations and to identify institutional characteristics in Yunnan, three institutional factors are relevant: the strength of the state, the financial system, and the skills development and control system.¹⁴

The strength of state influence on enterprises

The determining role of the state in regulating market entry and exit influences the mobility of resources. The extent of state strength is reflected in market regulations and policies. As discussed in the Zhejiang section (above), the central government has substantially deregulated market access for private enterprises, and has greatly simplified the registration procedure and administrative processes for startups. Although the development of the private sector in Yunnan, as led by the central government, has lagged behind, the Yunnan government has also reduced restrictions on market access for private enterprises. The Yunnan government introduced the negative list in 2016, and then selected Qujing to adopt this measure first in mid-2017 (Qujing Development and Reform Commission, Government of China 2017). The reform of the registration system has also been applied in Yunnan since 2016, to simplify administrative procedures (*ibid.*).

However, the relaxation of administrative entry barriers for enterprises does not mean that entry standards are lower. Entry requirements such as technical requirements, the safety standards of manufacturing processes, hygiene requirements, etc., vary considerably across different industries. As noted, large enterprises, especially SOEs, in highly resource-dependent and capital-intensive industries (e.g. tobacco, metallurgical and mining, chemical) form the backbone of the Yunnan economy. Private enterprises, especially SMEs, find it hard to access the core industries of Yunnan, due to the high entry requirements of technology, capital, or labour inputs. Hence, compared with SMEs, large enterprises, especially SOEs, dominate the core industries and sometimes monopolize them (e.g. tobacco industry). In other words, for SOEs to access the market is rarely a problem, but it is much more difficult for startups, especially SMEs, to start businesses in regional core industries.

Figure 4.11
Permit system in Yunnan

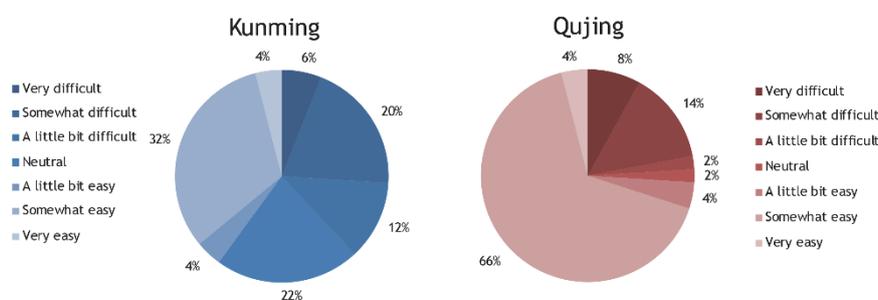


Source: Own survey results (2015-2016)

Figure 4.11 shows responses to two questions: is it convenient to obtain the business licence; and, besides the basic requirements, are there other requirements needed to obtain the permit? Figure 4.11 indicates that about 84% of total sampled enterprises in Yunnan deemed that there are no obstacles in applying for licence or certification. Sampled firms that gave a negative response are mainly engaged in industries which require higher national standards in accessing the market, such as manufacturing of cars, medicines, machinery, tobacco, and food. The Figure also shows that about 62% of sampled firms in Yunnan reported that specialized licences or permits are needed; these mainly apply to heavy industry and light industry with higher entry requirements, such as the car, tobacco, and pharmaceutical industries.

Figure 4.12 illustrates the data collected on the difficulty or otherwise of accessing the market, ranked from very difficult (labelled 1) to very easy (labelled 7).

Figure 4.12
Opinions on the difficulty level of accessing the market in Yunnan



Source: Own survey results (2015-2016)

In Qujing, the majority of sampled enterprises (74%) deemed that it is not hard to enter the market. Most SOEs in Qujing stated that it is easy to enter the market. Only 4 out of 17 SOEs in Kunming felt it was difficult to enter the market. Thus, SOEs have a generally positive opinion about entering the market compared to private enterprises. The sampled firms were also asked about the barriers to market entry (Table 4.10).

Table 4.10
Entry barriers in Yunnan

	Number of re-ports
Application process for licence	8
Application process for permit or qualification	9
Specific prescribed requirements or political discrimination for private enterprise	0
Registered capital	0
Commercial credit	2
Manufacturing technique	12
Requirement on sanitation certification and technique and equipment for environmental protection	9
Regional protectionism	1
Monopolies	7
Intense competition	68

Source: Own survey results (2015-2016)

As Table 4.10 demonstrates, 68% of sampled firms in Yunnan claimed that intense competition, rather than market regulation, is the major obstacle for

enterprises entering the market. Only 10% of sampled firms in Yunnan had difficulty in obtaining the licence and qualifications.

As Table 4.11 shows, the Yunnan government also provides favourable investment policies, improved infrastructure and public services, and encourages the establishment of intermediary economic associations to create a better business environment to support enterprises and attract investments.

Table 4.11
Supporting policies in Yunnan

	<i>Number of reports</i>
Green Passage Scheme	4
Reducing or waiving procedures or prescribed fees	4
Tax concession	63
Local government provided free collateral loans	1
Local government offered funds	20
Local government offered concessional rent for land or equipment	21
Local government offered subsidies for R&D	33

<i>Public services in Yunnan</i>	
	<i>Number of reports</i>
Convenient transportation	56
Sufficient electricity supply	73
Sufficient water supply	69
Convenient public facilities	2

Source: Own survey results (2015-2016)

As most SOEs are engaged in the resource-dependent and capital-intensive industries often considered to be the lifeblood of economic growth, large enterprises in Yunnan, especially SOEs, can often obtain funding from the state. Looking at the supporting policies provided by the Yunnan government, 24% of sampled firms in Kunming and only 8% of sampled firms in Qujing do not qualify for these policies. As Table 4.11 shows, 63% of sampled firms in Yunnan benefit from tax concessions, and 33% of sampled firms are offered subsidies for R&D activities by local government. Also, 21% and 20% of firms are eligible for reductions in the rental of land and equipment and additional funds. Opinions about public services provided by local government show a high degree of satisfaction.

Overall, the Yunnan government plays an active role in removing restrictions to market access, streamlining registration and administrative procedures for enterprises, and improving the investment environment to attract mobile capital.

However, Yunnan is characterized by a strong state sector and a highly resource-based economy, where capital and resource-based industries are the lifeblood of local economic growth. Hence, compared with the SOEs and large private regional core firms, smaller private enterprises and SMEs in Yunnan might encounter more difficulties in entering the regional core industries and accessing favourable government policies.

Financial systems

As stated above in relation to Zhejiang, the financial system and the banking system are highly concentrated and regulated. Banks and capital markets actively serve the needs of SOEs, while private enterprises, especially SMEs, struggle to access bank loans and capital markets.

The strong ties between SOEs and banks can be traced back to the pre-reform period. When the highly centralized and uniform financial system proved to be failing, the state initiated a reform of the banking system in the 1980s. This changed the way that SOEs accessed funds, from non-repayable bank grants to bank loans, and made SOEs responsible for their own profits and losses (Liu 2008). However, banks still undertake policy-based tasks to support SOEs. In this context of highly regulated stock markets and policy-based banks, private enterprises still confront difficulties in raising funds from the financial institution. Besides, although the stock exchange has been established for decades, direct financing in China only accounts for a small amount.

Most SOEs in Yunnan are engaged in highly resource-dependent and capital-intensive industries, which means huge inputs and a low degree of flexibility and mobility. Hence, changes in industry policies will exert a profound influence on these large regional core firms. As banks are fully responsible for their own profits and losses, they are very sensitive to and cautious about policy change due to the strong ties with SOEs. The real estate investment craze meant that enormous amounts of investment had poured into the construction industry, creating high demand for steel, cement, and other building materials. Thus, the steel-making and other related heavy industries like coal mining and coking, had seen serious investment, leading to problems of overcapacity. The consequence of overcapacity is usually a sharp fall in market prices, in this case of steel and other related products. The central government reacted by implementing a de-capacity policy in 2017, which required firms to reduce their output, but market prices kept falling as a result of oversupply, and some businesses went bankrupt. Banks immediately terminated

their credit agreements and refused further credit to these companies, including SOEs. As a consequence, enterprises in heavy industry in Yunnan, both private companies and SOEs, encountered severe difficulties in securing funds.

Table 4.12 reveals the sources of finance for sampled firms in Yunnan. The data show that firms rely heavily on self-financing and bank loans; sampled firms in Yunnan rarely borrow money from informal financial institutions and friends or relatives. Additionally, there are 13 listed firms in Yunnan, mostly SOEs in heavy industry, which seek funds through the capital market; by contrast, sampled private firms in Yunnan rarely raise funds in the capital market.

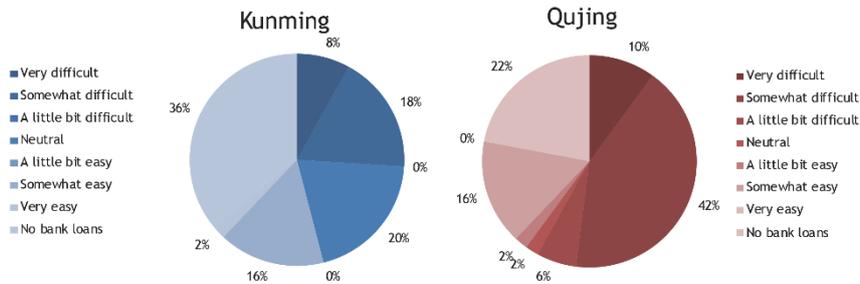
Table 4.12
Sources of finance in Yunnan

	<i>Number of reports</i>
Internal funds/retained earnings	99
Owners' contribution or issued new equity shares	13
New debt issuances including commercial paper and debentures	7
Bank borrowing	77
Purchases on credit from suppliers and advances from customers	4
Borrowing from informal financial institutions	0
Borrowing from friends or relatives	3
Local government investment	3
Local government loan	1
Foreign funds	1

Source: Own survey results (2015-2016)

Since bank loans are the major financing method in Yunnan, opinions on the difficulty of accessing bank loans were also collected (Figure 4.13), ranked from very difficult (labelled 1) to very easy (labelled 7).

Figure 4.13
Opinions on the difficulty level of accessing bank loans in Yunnan



Source: Own survey results (2015-2016)

Due to the overcapacity of heavy industry caused by the real estate investment craze, described above, 36% and 22% of sampled firms in Kunming and Qujing cannot access bank lending, while 26% of sampled firms from Kunming reported varying degrees of difficulty in accessing bank loans. Qujing, which has the largest heavy industry cluster in Yunnan, also has the largest proportion of surveyed firms (58%) reporting varying degrees of difficulty in obtaining bank loans.

To sum up, apart from listed SOEs, most private enterprises in Yunnan have little access to capital markets and rely instead on credit-based sources of financing (bank loans). The government's de-capacity policy also had a substantial impact on firms in Yunnan in terms of access to bank loans. The financial system in Yunnan can thus be labelled predominantly credit-based (bank loans).

The skill development and control system

(1) Skill development

Although the central government promotes the development of vocational education, and the condition of vocational education has significantly improved in Yunnan in terms of increasing numbers of organizations and enrolled students, vocational training still occupies an inferior position in the labour market.

Moreover, although occupations in SOEs are regarded as "a lifetime guarantee", which is expected to remain the case for a long time, a lack of professional training can be observed in Yunnan SOEs. The state stipulates that enterprises should spend an amount equivalent to 1.5% of total wages in employee training (Su 2016: 21). However, about 50% of workers in SOEs will receive only one or two sessions of employee training, at an average training cost per worker of about 10 yuan (1.28

euro) to 30 yuan (3.85 euro) (ibid.). Hence, in both SOEs and private enterprises, it is fair to say that employee training has been largely ignored.

(2) Trade unions

The typical features of trade unions in China are also found in Yunnan. The role of trade unions is mainly to support and improve workers' social welfare. As already seen in Zhejiang, most of the chairpersons of trade unions in Yunnan also serve in other positions in their firms (Lu, Y. 2016). Furthermore, by the end of 2013, only 4.2% of private enterprises in Yunnan had established trade unions (ibid.). The development of trade unions in Yunnan has thus lagged far behind other regions.

To sum up, Yunnan local government actively reduces restrictions on market access, simplifying registration and administrative procedures, providing favourable policies, improving public services, and encouraging intermediary economic associations. In Yunnan, market regulations are not considered as obstacles for firms in entering the market. With the exception of listed SOEs, the financial system in Yunnan can be considered predominantly credit-based. Most of the private enterprises in Yunnan have little access to capital markets and therefore rely heavily on credit-based sources of financing. As banks and firms are highly sensitive to policy changes, the de-capacity policy has had a substantial impact on firms in Yunnan in terms of access to bank loans. Although the central government is largely supportive of vocational education nationally, vocational training in Yunnan is still in relatively poor shape. Inadequate inputs and poor management of vocational training institutions place substantial constraints on the development of vocational education. Additionally, employee training in Yunnan has been widely neglected.

4.2.3 State-business relations

To determine the particular features of state–business relations in Yunnan, the formal and informal collaboration between the state and enterprises, the degree of acceptance of intermediary economic associations, and the extent of dependence of enterprises on the state are studied.

Business-government collaboration

The collaboration between enterprises and local governments can reflect the business–government relationship. Hence, data were collected through two questions: (a) whether firms have collaborated with local authorities, and (b) what types of

activities they have conducted. In Yunnan, 40% of sampled enterprises work in close collaboration with local governments.

Table 4.13
Business-government collaboration in Yunnan

	Infrastructure construction	Market development	Technical cooperation	Research and development of products	Training and education
Number of reports	28	7	18	19	4

Source: Own survey result

As detailed in Table 4.13, infrastructure construction sees the most frequent state–business collaboration. As reported by sampled firms, due to the effect of de-capacity policies, most enterprises in Yunnan actively conduct technical cooperation and R&D activities with universities or science and technology departments in order to upgrade their processes or products. Very few collaborative activities are observed in market development, or vocational training and education. This finding is confirmed by looking at PPP projects launched in Yunnan. Overall, infrastructure construction is the most common type of PPP project in Yunnan, with infrastructure construction projects making up 81.4% of total PPP project investment, followed by tourism projects which account for 4.63% (Yunnan Provincial Government 2017). Technological collaborations are most often found in large enterprises, while very few collaborative activities are observed in market development, especially for SMEs.

Intermediary economic associations

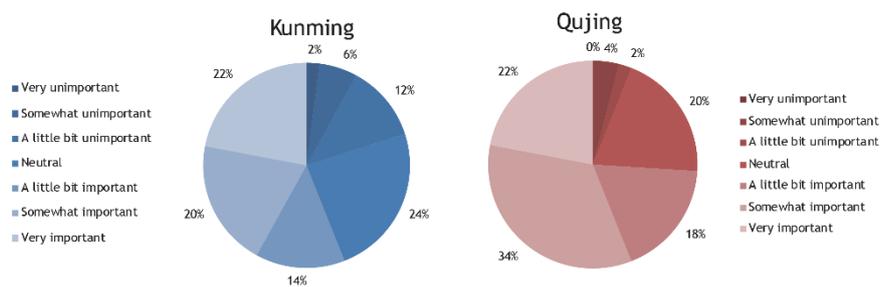
As discussed in the Zhejiang section, above, the central government has actively supported and encouraged the establishment and development of intermediary associations. However, the absence of effective management in industry associations which is prevalent across China can also be seen in Yunnan. About 61% of sampled firms in Yunnan have joined local industry associations; however, nearly all of the sampled firms reported that support from associations is limited.

The degree of dependence of firms on local governments

The condition of state–business relations can also be observed by looking at firms' reliance on local government for their development. Figure 4.14 shows the

importance of local governments in enterprise development, according to the surveyed firms, ranked from very unimportant (labelled 1) to very important (labelled 7).

Figure 4.14
Opinion on the importance of local government in enterprise development in Yunnan



Source: Own survey results (2015-2016)

The Figure shows that 74% and 56% of sampled firms in Qujing and Kunming (respectively) claimed that local government is “important” in varying degrees. Indeed, 22% of sampled firms in both Qujing and Kunming expressed the view that the role of local government is “very important”. It is worth noting that these positive opinions tend to come from large enterprises; by comparison, very few sampled SMEs deemed the role of local government in firm development to be important.

The survey also looked at entry incentives and found that high market potential, policy-related incentives, and adequate resources were seen as vital consideration to attract capital to invest in Yunnan.

Table 4.14
Entry incentives in Yunnan

	<i>Number of reports</i>
Application process for licence	2
Permit and qualification	1
No specific prescribed requirements or political discrimination	1
Reasonable threshold of registered capital	3
No specific requirement on commercial credit	0
Attainable requirement of manufacturing technique	4
Attainable requirement on sanitation certification and technique for environmental protection	4
No regional protectionism	2

Fair market competition	9
High market potential	47
Family business	0
Familiar with business	15
A complete industrial chain	1
Favourable investment policy	13
State development plan	21
Supporting enterprises	5
Abundant resources	25

Source: Own survey results (2015-2016)

Table 4.14 shows that 47% of sampled enterprises reported that high market potential is the major incentive for them in entering the market, followed by abundant resources (25%). The state development plan (21%) and favourable investment policies (13%) are also important incentives for startups, especially enterprises in Qujing. Thus, sampled firms in Yunnan not only work in close collaboration with local government and universities, but also show more reliance on local government compared to Zhejiang. As noted, large enterprises tend to perceive the role of local government in firm development as important. The sampled firms in Yunnan reported that the constraints faced by firms, especially large private firms and SOEs in heavy industry, are mostly policy-related or the consequences of policy changes (e.g. the financial difficulties caused by the de-capacity policies).

In sum, due to the massive inputs of technology and capital needed, highly resource-dependent firms in Yunnan are sensitive to policy change, and are therefore keen to establish cooperative relationships with local government, which explains the positive attitude of enterprises towards the role of local government in firms' development.

4.3 Comparing the existing Zhejiang and Yunnan business systems

Based on the descriptive discussion above, the dominant economic and institutional features of Zhejiang and Yunnan business systems can be identified. The findings reveal a significant regional variation between the two provinces in implementing the market-oriented national strategy. As emphasized in comparative system theories, economic and institutional actors are functionally interdependent, mutually supported and constrained. In any system, key features of predominant economic organization can reflect the key determining institutions, while the stronger

institutional features can exert a more perceptible influence on economic organizations (Whitley 1999: 54–55). This “interdependent web of the economic and institutional matrix” (North 1990: 95) generates institutional complementarities. Hence, under isomorphic power, economic and institutional actors in a system gravitate to a particular form of coordination (Carney et al. 2009: 364–368, also Jackson and Deeg 2006: 2). In this section, the common and distinctive statistical and institutional features of the existing Zhejiang and Yunnan business systems will be identified and compared.

Statistical tests have been used to verify whether there are statistically significant differences between Zhejiang and Yunnan. Apart from the indicators of non-ownership coordination, strength of market regulation, financial system, types of state–business collaboration activities, and strength of intermediaries,¹⁵ the rest of the indicators show that there are significant differences between Zhejiang and Yunnan. The major distinguishing characteristics of Zhejiang and Yunnan are summarized in Table 4.15 below.

Table 4.15
Dominant features of Zhejiang and Yunnan business systems

Industrial structure	Zhejiang	Yunnan
Natural resource base	Poor	Rich
Predominant type of industries and firms	Low-tech, low-cost and private family-based SMEs in light industries	Highly resource-dependent, capital-intensive large sized enterprises (mostly SOEs) in heavy industries
Enterprise sector block	Zhejiang	Yunnan
Owner control	Direct	Indirect
Ownership-based integration and diversification	High (large firm) Low (SMEs)	High (SOEs) Low (SMEs)
Non-ownership coordination	High	High
Employment relations	Weak commitments and high mobility	Seniority-based promotion and low mobility
State sector block	Zhejiang	Yunnan
Strength of state	Supportive from a distance	Supportive
Strength of market regulation	From high to low	From high to low
Financial system	Formal and informal credit-based	Capital market (listed SOEs) and credit-based (private firms and SOEs)
Skill development	Low	Low
Union strength	Enterprise-based and defined	Enterprise-based and defined

State-business relations	Zhejiang	Yunnan
Business-government collaboration	Low	High
Strength of intermediaries	Weak	Weak
The dependence of firms on local governments	Low	High

Source: Own survey result

Natural resource endowment is one of the factors which shapes regional industrial structures and paths in regions with rich natural resources. In any economy, capital naturally gravitates towards the richest resources in a region. Hence, a region like Yunnan (with large reserves of mineral and metal resources, tobacco, and sugarcane), becomes heavily reliant on resource-dependent industries. As mineral and metal resources are often considered the “commanding heights of the economy” (Whitely 1999: 147), the state directly or indirectly retains or controls the ownership of core resource-dependent industries. Consequently, large-sized enterprises, especially SOEs, in highly resource-dependent and capital-intensive industries predominate in the Yunnan economy. In contrast, a region like Zhejiang is less dependent on local natural resources. As the “birthplace of the private economy” in China, Zhejiang has established an industrial structure dominated by low-tech, low-cost, and private family-based light industries.

The dominant features of industrial structures substantially determine ownership structures, inter-firm relations, and employment relations, as well as labour mobility and market access. As discussed above, in the sections on the enterprises sector blocks, a highly concentrated ownership and involvement in the family business, a high level of risk-sharing and commitment of the core group of family members, a high level of exclusivity of ownership, and a high level of mobility, typify the family-based enterprises in Zhejiang. Hence, workers who have no personal ties to the core group of family members have less chance of promotion, which results in a relatively high degree of labour mobility. In Yunnan, although nearly all the SOEs have converted into joint-stock enterprises, the local authorities remain in control of SOEs, giving a high degree of concentration of ownership and extensive involvement in the management of enterprises through the appointment of executive directors and senior managers. Moreover, as salaries are guaranteed and seniority is the primary measurable criterion of promotion, workers in SOEs show a relatively low degree of labour mobility. Furthermore, due to the huge inputs of technology, capital, and labour, highly resource-dependent firms in regional core industries in

Yunnan, especially SOEs, demonstrate a lower degree of mobility and entry and exit.

Unlike the typical Chinese family-based SMEs which are characterized by short-term inter-firm relations and low levels of coordination and risk-sharing between firms, Zhejiang's private enterprises, including large firms and SMEs, have formed highly specialized and mature production networks, and tend to maintain informal long-term commitments. Hence, the Zhejiang business system is characterized by a high level of non-ownership coordination and weak vertical integration. In Yunnan, ownership-based vertical integration and horizontal diversification are relatively weak in SMEs. Given the need for substantial inputs and the inflexibility of resource-dependent firms in the market, large enterprises, especially SOEs, tend to strategically integrate and diversify into related sectors, and also to maintain long-term partnerships with regional core firms to reduce the risk of market volatility.

Since restrictions on market access have been reduced and registration and administrative procedures have been simplified for private capital nationally, there is no significant difference in basic entry policies for startups in Zhejiang and Yunnan. The regional differences in accessing the market are due to the varying technical requirements, safety standards of manufacturing processes, hygiene requirements, etc. in different industries. Hence, the entry requirements for Yunnan's core industries are stricter than those in Zhejiang.

It is important to remember that China is experiencing an ongoing process of transition from a highly centralized planned economy to a market-oriented economy, which is shaping a unique dual system in China. State and market forces, as well as the state-owned economy and the private sector, coexist and play crucial roles in economic growth in China. As reforms and policies are implemented nationwide, institutional contradictions are the major cause of regional differences. In the heterogeneous Chinese economy, the Zhejiang business system couples with a strong private sector and highly competitive market, while in the Yunnan business system, it is the state-based economy that predominates. According to the Annual Marketization Index¹⁶ Report of China, and with the exceptions of 2010 and 2012 (when it was ranked 3rd), from 1999 to 2014, the marketization level of Zhejiang has ranked 1st or 2nd among all the provinces and autonomous regions in China, while Yunnan, with a considerably lower level of marketization, ranked 26th in 2014 (Wang et al. 2017).

Hence, the existing Zhejiang business system is built on "market-led institutional contexts" in which the local government plays a regulatory and service-oriented role from a distance, and economic actors coordinate their activities mainly through

competitive market arrangements. In contrast, “state-led institutional contexts” typify the Yunnan business system, in which the state plays a determining role in supporting, guiding, or constraining economic activities. In other words, in the Zhejiang business system, economic actors solve coordination problems mainly through the market, while, in Yunnan, the state strategically coordinates economic activities, either directly or indirectly.

Because the development of the vocational education system and the function of trade unions and intermediary associations are almost identical throughout China and have little impact on regional economic development, the main focus of this research is the institutional contradictions in shaping the form of inter-firm coordination, sources of finance, as well as state–business relations in the existing business systems in Zhejiang and Yunnan.

Although the existing business systems in Zhejiang and Yunnan are characterized by high levels of ownership and non-ownership coordination in large enterprises and long-term inter-firm relations, the form taken by inter-firm coordination or integration is where we see the institutional difference. As already noted, the regional core firms in Yunnan, mostly SOEs, undertake tasks to assist the local government in supporting unprofitable and loss-making SOEs, to prevent them from going bankrupt. A large proportion of inter-firm coordination or integration activities in Yunnan are thus initiated by local government. Unlike the state-led strategic coordination in Yunnan, firms in Zhejiang are highly interdependent in a very competitive market, with informal long-term commitment and (sometimes opportunistic) horizontal diversification.

Apart from a few listed SOEs in Yunnan, enterprises in both Zhejiang and Yunnan rely on credit-based sources of financing rather than the capital market. The financial system and the banking system in China are highly concentrated and regulated, which serves the needs of SOEs; this means that the “credit-based” financial system in Yunnan refers to bank loans, while private enterprises in Zhejiang have little access to bank loans but seek funds through informal financial institutions. Since banks are responsible for their profits and losses, they are very sensitive to policy change and will react immediately, which has a substantial impact on the ability of firms to access bank loans (see the discussion above on the impact of de-capacity policies on firms in Yunnan).

This research examines the impact of different institutional contexts in Zhejiang and Yunnan on economic coordination and financial systems. Highly resource-dependent and capital-intensive firms in Yunnan are very sensitive to policy changes,

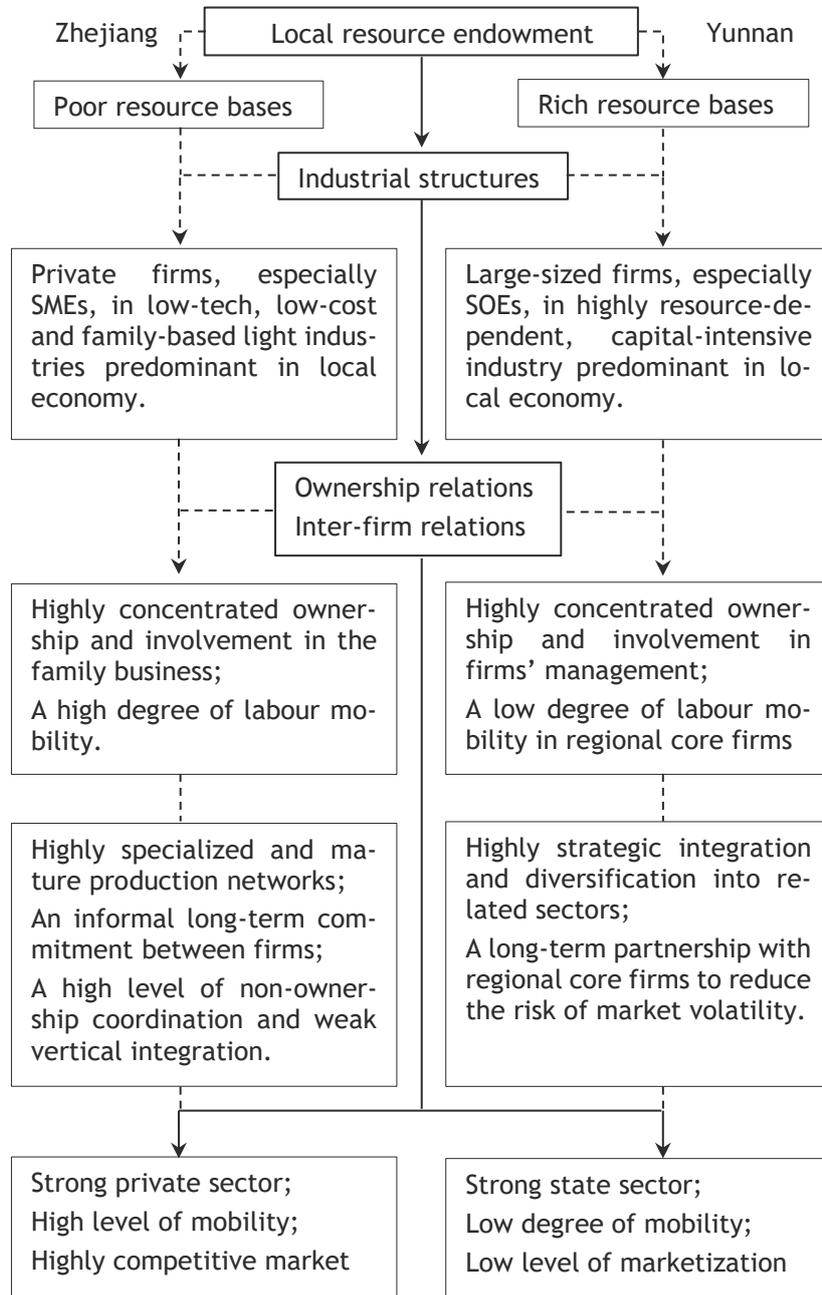
due to the determining role of the state in coordinating economic activities and the low levels of flexibility and mobility caused by the requirement for vast inputs of capital, technology, and labour. Firms in Yunnan are keen to establish cooperative relationships with local government for the development of their enterprises. In contrast, Zhejiang firms have a high level of mobility in the very competitive market, so they are less dependent on local government to support their business.

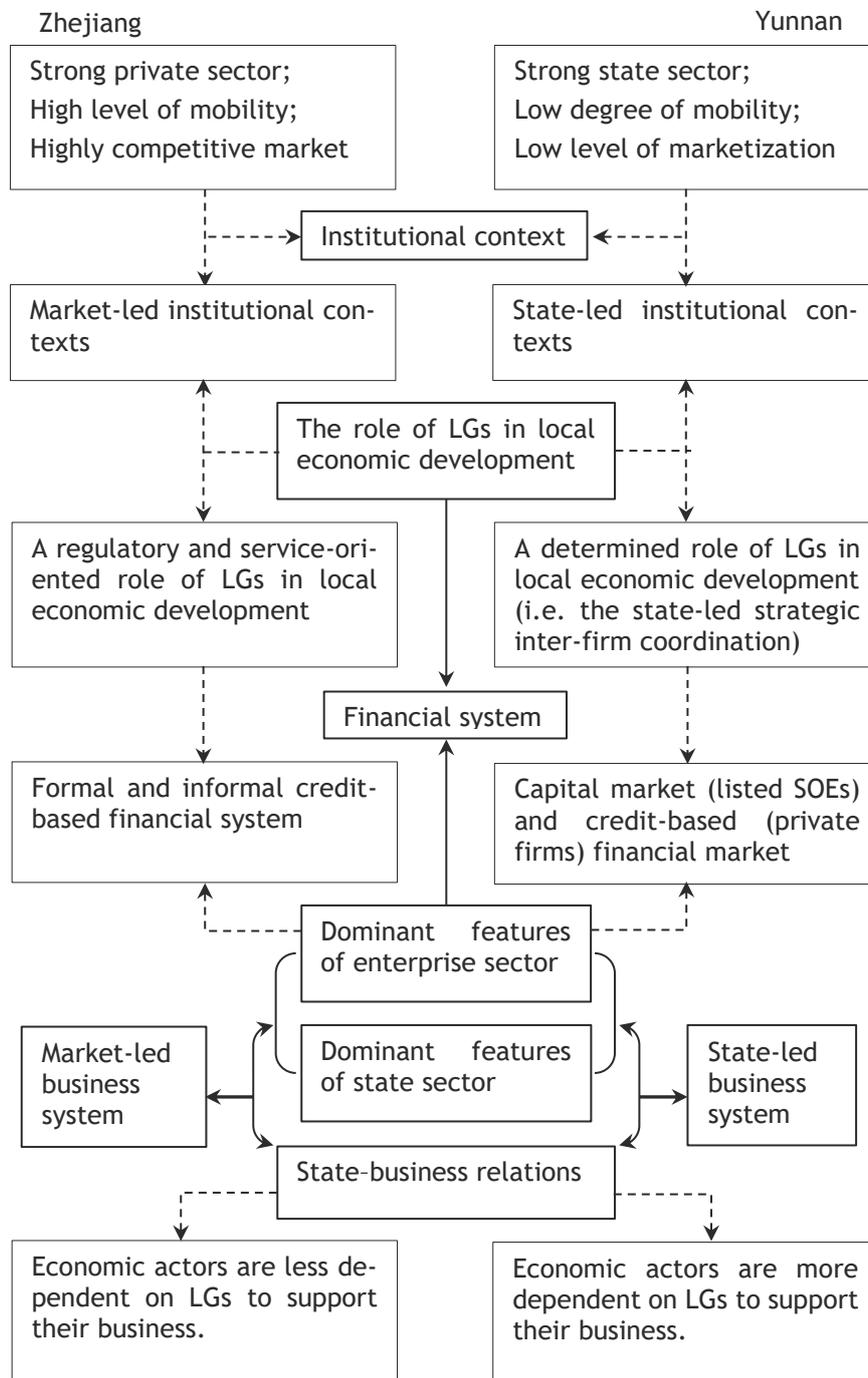
Thus, the institutional differences between Zhejiang and Yunnan determine the distinctive state–business relations, in which Yunnan has a positive attitude towards the role of local government in enterprise development, while Zhejiang firms show less reliance on local government to support their business.

This discussion leads to the identification of the Zhejiang business system as market-led, and the Yunnan business system as state-led. These two cases show that economic actions or the behaviour of firms and local governments will follow a specific logic and fit the particular institutional environment (i.e. market forces in Zhejiang or the strong state sector in Yunnan). Hence, the cases of Zhejiang and Yunnan suggest that the regional isomorphic power of dominant institutions reinforces the tendency to form a cohesive economic system within the region. Although the transitional Chinese economy is characterized by complexity, variation, and heterogeneity, a relatively high degree of regional institutional complementarities are present in both Zhejiang and Yunnan business systems. These relationships and connections are summarized in Figure 4.15 below (local government is abbreviated to LG).

Figure 4.15

The relationships and connections between the dominant features in Zhejiang and Yunnan business systems





Although the coordinated–industrial–district business systems and state-organized business systems defined by Whitley (1999) show some similarities to the business systems of Zhejiang and Yunnan, respectively, industrial and institutional differences exist between Whitley’s typology and the business systems identified in this research.

The coordinated–industrial–district business system is exemplified by the Italian industrial districts, where non-ownership coordination of economic activities is relatively limited (Whitley 1999: 42–43). However, Zhejiang’s industrial structure is characterized by a highly specialized division of production processes, and enterprises are highly interdependent. More importantly, unlike the Italian type of clusters of equal-sized firms, the regional core firms in Zhejiang play an essential role in inter-firm coordination, forming hierarchical clusters. Additionally, in the coordinated–industrial–district business system, local governments, banks, and training organizations work with strong trade unions to provide an infrastructure for collaboration (Whitley 1999: 60–61), whereas the local government in Zhejiang plays a regulatory and service-oriented role from a distance.

The state-organized business system is exemplified by South Korea, where the resource bases and industrial structures are entirely different from Yunnan. The industrial structures substantially shape the behaviour of economic actors and determine the dominant features of the Yunnan business system. Hence, there is a fundamental difference between the two types of business systems. There is no denying that the state-organized business systems and the Yunnan business system have some common features, whereby the state is actively involved in coordinating economic activities. However, large-sized enterprises, especially SOEs, in highly resource-dependent and capital-intensive industries dominate in the Yunnan economy, shaping the supportive role of local government in the Yunnan business system. Due to the inputs needed and the inflexibility of resource-dependent firms in the market, the Yunnan business system exhibits a relatively high level of inter-firm coordination to reduce the risk of market volatility. In state-organized business systems, by contrast, organizational integration of economic activities is low across firms (Whitley 1999: 42–43). Moreover, restrictions on market access have been vastly reduced and simplified in Yunnan, and the local government does not tightly control intermediary associations and unions as in the state-organized business systems.

Hence, we can conclude that the Zhejiang business system does not resemble a coordinated–industrial–district business system, and Yunnan does not resemble a state-organized business system.

As a transitional economy, China presents a contradictory heterogeneous development trajectory; however, the mixed Chinese economy has achieved and maintained good economic outcomes for decades. Yunnan shows a high level of regional coherence (i.e. the state-led institutional contexts), but its economic performance has been far below the national average. Hence, there is no concrete evidence that shows the direct link between the economic outcome and the degree of coherence of a (regional) economy, as highlighted in comparative system theory.

In sum, Zhejiang and Yunnan are selected as two contrasting cases of the mixed Chinese economy, which show significant statistical and institutional differences and a certain level of institutional complementarities. The following chapters will examine how each specific system has been formed and evolved, and investigate whether the regional differences and distinctive features persist over time.

Note

¹ There are significant reserves of kaolin (8.2 million tons and ranked 8th), vanadium (38,000 tons and ranked 10th), and zinc (0.62 million tons and ranked 14th), but the reserves of coal, iron, copper, lead, and pyrite are amongst the smallest in China (National Bureau of Statistics 2017).

² Based on the statistical standard of industrial statistics, both national and provincial Bureaus of Statistics collect and provide detailed statistics on enterprises with annual revenues over 20 million yuan (2.6 million euro), namely enterprises “above designated size” (ads). Additionally, in the provincial statistical yearbook, a few statistics are also provided about enterprises “below designated size” (bds). Note that the 20 million yuan level was introduced in 2011. The standard for enterprises above designated size from 1998 to 2010 was those with annual revenues over 5 million yuan (0.65 million euro) (Zhejiang Provincial Bureau of Statistics 2018).

³ The data presented here are for the manufacturing enterprises (ads), and can be broken down as follows. The output and the number of employed persons in the textile, apparel and leather industry in Zhejiang was 0.82 trillion yuan (0.11 trillion euro) and 1.49 million persons, accounting for 13.56% of total output and 21.2% of

total number of employed persons in 2017 (Zhejiang Bureau of Statistics 2018). The output and the number of employed persons in chemical fibre manufacturing was 0.22 trillion yuan (30 billion euro) and 0.11 million persons, accounting for 3.69% of total output and 1.61% of total number of employed persons in 2017 (ibid.).

⁴ According to the Zhejiang statistical yearbook, industrial statistics do not provide detailed information about the ownership structures and firm size of each industry. The figures presented here are a totalling of statistics on the manufacturing, electricity, gas and water supply, recycling, repairing, and maintenance sectors (Zhejiang Provincial Bureau of Statistics 2018).

⁵ In the industrial sector, there were only 74 SOEs, with an output value of about 0.29 trillion yuan (38 billion euro), which accounted for 4.3% of the total output of the industrial sector, while state-holding enterprises accounted for 10.9% of total output (Zhejiang Provincial Bureau of Statistics 2018).

⁶ Table 4.16 shows the three criteria for classifying firm sizes: number of employees, revenue, and total assets.

Table 4.16
Classification of firm size

	Large enterprises	Medium enterprises	Small enterprises
Employees	2,000 and above	300-2,000	300 and below
Revenue (million yuan)	300 and above	30-300	30 and below
Total assets (million yuan)	400 and above	40-400	40 and below

Source: Ministry of Industry and Information Technology, Government of China 2011

Given the accuracy and reliability of the information obtained in fieldwork, total assets of sampled enterprises are used to categorize the sampled firms in this study.

⁷ The decrease in the total number of county cities in Zhejiang from 88 to 81 is because of a change of administrative divisions.

⁸ The AIC is responsible for regulating the market, drafting rules and policies, issuing licences, administering registration of enterprises, etc. (The State Administration for Industry and Commerce, Government of China. 2010)

⁹ These are Agricultural Bank of China (ABC), Bank of China (BOC), China Construction Bank (CCB), and Industrial and Commercial Bank of China (ICBC), also known as the “Big Four”.

¹⁰ Yunnan has the largest tin reserves (1.25 million tons) and the second-largest lead reserves in China, while the reserves of zinc, copper, and phosphorus were ranked 3rd in 2016 (National Bureau of Statistics, 2017).

¹¹ The Report on Chinese Industrialization 1995–2015 (Huang and Li 2017), uses five indicators to categorize the level of industrialization of each province, namely GRP per capita (weight 36%), the share of economic sectors in GRP (weight 22%), the share of value-added in the manufacturing sector in GRP (weight 22%), the rate of urbanization (weight 12%), and the distribution of employment by economic sectors (weight 8%). Industrial transformation is broken down into five levels: pre-industrialization (composite score: 0), industrializing (composite score: 0–33), semi-industrialization (composite score: 33–66), later-industrialization (composite score: 66–99), and post-industrialization (composite score: >100) (Chen. et al. 2006, Huang and Li 2017).

¹² Revenue generated by tourism in Zhejiang reached 932.3 billion yuan (121.7 billion euro) in 2017, ranked third in China (Zhejiang Provincial Bureau of Statistics 2018, National Bureau of Statistics 2018).

¹³ When a region has higher concentration and specialization level than the national level, LQ will be greater than 1.

¹⁴ National regulations and policies related to institutional factors were presented in the section on Zhejiang, above; I will not go into the details again here.

¹⁵ No significant differences indicators: non-ownership coordination: long-term partnership with clients ($\chi^2=0.64$, $p=0.8$); the strength of market regulation: applying for licence ($\chi^2=0.363$, $p=0.547$), entry barriers ($\chi^2=14.64$, $p=0.57$), public services ($\chi^2=13.37$, $p=0.37$); financial system: loans from financial institutions ($t=1.24$, $p=0.219$); business–government collaboration: types of collaboration activities ($\chi^2=5.16$, $p=0.272$).

¹⁶ The marketization index is based on five components: (a) government–market relations, including the ratio of market-based resources allocation, size of government, the level of financial burden on farmers and firms and the level of government intervention in firms; (b) non-state sector development, including percentage of output value of non-state sector to total industrial output value and percentage of output value of non-state sector to total investment of fixed assets; (c) price control and trade barriers, including the level of price control on retail goods, raw materials and agricultural goods, and the level of inter-regional trade barriers; (d) factor market development, including the level of financial institutions' competition, the level of marketization of the financial system, the amount of FDI, the level of

labour mobility, and the number of transitions from technological achievements to production; and (e) the legal framework, including the level of property rights protection and contract enforcement, and the number of intermediate institutions (Fan et al. 2001).

5

The Historical Developmental Path of Zhejiang and Yunnan (before 1979)

As indicated in Chapter 4, the significant empirical and institutional regional divergences in the currently dominant economic, industrial, and institutional configurations and structures of the two provinces will be discussed. To understand how and why distinct forms and patterns have been shaped and have mutated, the following questions will be addressed in this chapter.

- a. Do the regional historical circumstances and conditions and the pre-existing industrial and institutional arrangements matter, and are they relevant for recent economic processes and outcomes in Zhejiang and Yunnan?
- b. Did the highly unified and centralized arrangement and the socialist transformation during the period of the planned economy alter the pre-existing (pre-1949) regional economic and institutional configurations, and did these reduce or enlarge the regional differences between Zhejiang and Yunnan? If so, how did the planned economy system change the regional structures and future growth potential? And if not, why and how could the regional difference between Zhejiang and Yunnan persist in the same national institutional context?

5.1 The developmental path of Zhejiang and Yunnan during the imperial period (before 1949)

5.1.1 The origins of Zhejiang business during the imperial period

As shown in Chapter 4, the resource endowments of Zhejiang at present are characterized by scarcity of natural resources, insufficient cultivated land, and low agricultural outputs. However, from the late 6th century to the 13th century, the Yangtze River Delta, including Zhejiang, Jiangsu, and Shanghai, was the most advanced region for rice agriculture in ancient China (Perkins 1969, Ge and Gu 1994). During the Song era (960–1279), the agricultural technologies and farming practices in the Yangtze River Delta had developed significantly, with improvements to methods

of cultivation such as irrigation systems and agricultural tools, and the introduction of double cropping of rice, which substantially improved grain production (Perkins 1969: ix-xii, Ge and Gu 1994). In the Song period, the average grain production per capita reached 3,500 kg per year, which is about three times greater than in the Tang dynasty (618–907) (Hu 1983: 25, Ge and Gu 1994: 101). Using the vast waterway system of the Yangtze River Delta to move grain and other goods, Zhejiang, as one of the major grain producers, became the major grain supplier of the imperial state during the Song era (Yang 1993, Ji and Wang 2014).

Due to the increased productivity and the surplus output of grains, the agricultural population started a switch to commercial crops. In the late Song period, the relatively higher value of the output produced by sericulture attracted some of the peasants to silk and cotton farming, which altered the monoculture farming system of paddy plantations in Zhejiang (Yang 1993, Ji and Wang 2014). In the Yuan dynasty (1271–1368), agriculture in Zhejiang was still dominated by wet-rice cultivation, but during the Ming dynasty (1338–1644), there was a rapid growth of silk and cotton farming (Li, B. 1985: 151–153). During the Ming and Qing period (1636–1912), Zhejiang became the major producer of silk fabric (Ji and Wang 2014). In 1391, the cultivated area for mulberry plantation took up 15.66% of total cultivated land; in 1512 that had increased to 26.72%; and by 1713, mulberry plantations accounted for 41.4% of total cultivated area in Zhejiang (Yang 1993: 87). The significant expansion of inputs in commodity production (i.e. silk and cotton farming) resulted in the sharp decline of grain output, which marked the transformation of the agricultural farming system in Zhejiang.

Notably, since the Ming dynasty and for the following six centuries, there were no obvious improvements in agricultural technology in China (Perkins 1969: 6–7). During the Ming-Qing period, the Yangtze River Delta region saw a more than threefold increase in population;¹ with unchanged agricultural technology, and no spare land available for agricultural expansion, agricultural production in the region began to stagnate² (Perkins 1969: 6–7, Li, B. 1985: 160). In other words, the marginal product of agricultural labour approached the point of zero, which generated labour surplus. Surplus agricultural labour was liberated from the cultivated land and shifted from farm work to manufacturing and commerce (Yang 1993, Ji and Wang 2014). From the time of the Song dynasty, a large amount of labour was absorbed into silk and cotton fabric manufacturing in Zhejiang, which became the most important silk fabric manufacturing centre for both the imperial court and the supra-regional markets (Ge and Gu 1994). In addition, handicraft manufacturing,³

ship building,⁴ and paper making also developed in Zhejiang (Yang 1993, Zhang and Yang, 2006, Ji and Wang 2014). Dongyang, a county city in Jinhua, became famous for woodworking and carving and acquired a reputation as a “county of 100 skills” (*bai gong zhi xiang*) (Cooper et al. 1998, Chen 2005). In the Ming-Qing period, manufacturing and trade expanded at a fast pace (Lam 2003: 156).

Marx (2007: 508) asserted that “the economic structure of capitalist society has grown out of the economic structure of feudal society, and the dissolution of the latter set frees the elements of the former”. As Franklin Mendels first argued in 1972, and as further developed by neo-Marxist scholars, the transition from feudalism to capitalism and the transformation from feudal production to modern factory industrialization are triggered by proto-industrialization. In other words, proto-industrialization is the phase which precedes modern industrialization and capitalism, which is characterized by the development of commercial agriculture, the participation of surplus agricultural labour in sideline activities, and commodity production for interregional and international markets (Mendels 1972, Coleman 1983: 437–439, Ogilvie and Cerman 1996: 1–2).

During the Song period, manufacturing activities in Zhejiang initially operated through family labour, but as the market demand for commodities increased, surplus labour was recruited into manufacturing employment, especially in silk and cotton fabric manufacturing (Zhang and Yang 2006). From that point on, the cottage industry developed and expanded and Zhejiang became the industrial and commercial centre of imperial China (Yu 2005: 55–56). The emergence of paid workers (i.e. the employment relationship), the expanded supra-regional markets, and the rise of commercial agriculture signalled that Zhejiang had entered the phase of proto-industrialization and prepared the ground for the path to modern manufacturing and capitalism.

Alongside the transformation from the feudal mode and relations of production to market-oriented production, the feudal social order had also been challenged. In ancient China, four occupations (*si min*), the feudal social order system, were adopted, in which people were grouped into four classes: scholar (*shi*), farmer (*nong*), artisan (*gong*), and merchant (*shang*) — with merchant ranked at the bottom of the four occupations (Lam 2003: 155, Fairbank and Goldman 2006: 108). Zhejiang merchants, as both manufacturers and traders, diversified into a wide range of businesses⁵ (Lam 2003: 156). With the rise of cottage industries and expanded markets in the Song dynasty, the power and social status of merchants were greatly improved (Lam 2003: 155). Two prominent thinkers, Wang Yangming (1472–1529) and Huang Zongxi (1610–1695), who were born in Zhejiang, had a profound influence

on shaking the traditional social order. Wang argued that the four occupations had different professions, and the merchant (*shang*) could not be considered inferior to the scholar (*shi*) (Lufrano 1997: 44). Huang emphasized that manufacturing and trade are the foundation of the national economy (*gong shang jie ben*) (Ye 1983). Huang's proposition has been considered the inspiration for the emergence of capitalism in imperial China (Ye 1983). These two influential thinkers and their followers challenged the social order in an attempt to improve the merchants' social status in late imperial society (Lufrano 1997: 42). Their efforts exerted a profound influence on shaping the unique business culture which took root in Zhejiang.

After the First Opium War, in 1844, several cities in Zhejiang, including Ningbo and Wenzhou, were opened as treaty ports (Zhang and Yang 2006). From 1843 to 1894, 191 foreign-owned industrial enterprises were established, totalling about 20 million yuan (2.52 million euro) of investment (Yan 2013). Although market-oriented transformation is typical of proto-industrialization, and facilitates the process of industrialization, it is not sufficient to break down the socio-economic mechanisms of feudal agrarian society and initiate the industrial process (Mendels 1972: 241, Coleman 1983: 439, Ogilvie and Cerman 1996: 1–2). Before 1844, there was little change in the traditional method of production of the cottage industries due to the isolationist foreign policy of the imperial state. After 1844, the cottage industries experienced the full impact of the enormous inflows of foreign capital and new technologies (Yan 2013). The rapidly expanded foreign-owned factories and enterprises shook the foundations of the feudal mode of production by bringing advanced technology and machines to imperial China. In 1887, Yan Xinhou, a Zhejiang merchant, established a mechanized cotton ginning factory, which was the first private mechanized factory in imperial China (Ji and Wang 2008). When this first attempt at large-scale mechanized manufacturing proved successful, Yan invested in unrelated mechanized factories and businesses (*ibid.*). Meanwhile, other large merchants in Zhejiang also actively adopted advanced technology and diversified their businesses into a variety of sectors⁶ (*ibid.*), which reflects the typical pattern of the ownership-based horizontal diversification in the existing Zhejiang business system, as described in Chapter 4. In the late 1890s and early 1900s, Zhejiang experienced an investment boom in modern mechanized factories (*ibid.*), which marked the first step on the path to modern manufacturing and capitalism.

Alongside the market-oriented transformation and increased trading activities, financial institutions in Zhejiang became well-developed. The earliest Chinese banking institution can be traced back to the Song dynasty, when the first paper money

in history (*Jiaozhi*) was issued (Ji and Wang 2008). There were two major types of traditional native banks in imperial China: the draft bank (*piao bao*), which was established by Shanxi merchants in the Qing dynasty, had a profound influence on the development of native banks in China, while the cash shop (*qian zhuang*) first appeared in Shanghai and Zhejiang in the Qing period (Fu and Turvey 2018: 148–149). The cash shop was mainly involved in the exchange of currency in circulation, deposit, and credit facilities, while the draft bank focused on interregional remittance, deposit, and issuing credit (Zhang 1987). These native banks could be either a single proprietorship or partnership-based, and their main functions were to buy and sell currencies, to absorb capital investment and money deposits, and to provide loans — the essential features of the contemporary bank (Fu and Turvey 2018: 150).

In the 1830s, more than 150 cash shops were set up in Ningbo, Zhejiang (Ji and Wang 2008). From the 1800s to the early 1900s, six out of the nine biggest cash shops in Shanghai were owned and operated by Zhejiang merchants (*ibid.*). At the same time, pawn shops (*dian dang*) were rapidly developing in Zhejiang, and merchants from Huzhou (a city in Zhejiang) expanded their pawnshop businesses to Shanghai (*ibid.*). After the opening of the treaty ports in 1844, besides the enormous inflows of FDI and new technology, a large number of foreign banks also entered China, which challenged the traditional banking system of imperial China. More importantly, the traditional banking system failed to meet capital needs for the development of industrial mass production. Therefore, in 1897, the first commercial bank, Imperial Bank of China, was established with five of its nine directors coming from Zhejiang (*ibid.*). In 1908, 12 Zhejiang merchants set up the first private bank, Ningbo Commercial and Savings Bank (*si ming yin hang*) in Shanghai (Ji and Wang 2008, Fu and Turvey 2018). In the following years, a large number of private commercial banks were set up by Zhejiang merchants, and traditional financial institutions like cash shops were converted into modern banks (Ji and Wang 2008, Fu and Turvey 2018). The current informal financial sector thus has a long tradition in Zhejiang, which explains the explosive growth of the informal financial market in Zhejiang since the 1980s and the high reliance of enterprises on credit-based informal financial institutions in the existing financial system of Zhejiang, as discussed in Chapter 4.

The development trajectory of Zhejiang during the imperial period thus followed a typical process of market-oriented transition from a feudal agrarian society to the path towards modern industrialization and capitalism. In other words, market-based relations gradually supplanted feudal relations in Zhejiang during the imperial period.

There were three major transitions towards the phase of proto-industrialization in Zhejiang since the Song dynasty. The development of commercial agriculture characterizes the first transition. The improvement of agricultural technology and farming practices in Zhejiang increased productivity significantly in the Song period. This increased output of grain induced a switch of the agricultural population from agrarian production to commercial agriculture, and the ensuing expansion of inputs in commodity production (i.e. silk and cotton) marked the transformation of the agricultural farming system in Zhejiang. The second transition is identified by the emergence of surplus labour and the employment relationship, and by expanded supra-regional markets. Due to the stagnation of agricultural technology, the rapid growth in population and the lack of spare arable land for expansion, the marginal product of agricultural labour approached the point of zero, which generated labour surplus and compelled the shift from farm work to manufacturing and commerce. As market demand for commodities increased, surplus labour was recruited to produce goods, especially silk and cotton fabric, for the supra-regional markets. The third transition was characterized by the rise of the merchant class. The rapid expansion in commerce led to an increase in the wealth and power of the merchant class. At the same time, two influential thinkers from Zhejiang not only emphasized the importance of manufacturing and business, but also challenged the foundation of feudal social orders in their effort to improve the merchants' social status.

These three major transitions signalled that Zhejiang had been in the phase of proto-industrialization, which is the preliminary step towards modern industrialization and capitalism. In other words, there was a semblance of "sprouts of industrial capitalism" in Zhejiang during the imperial era. The process of market-oriented transition left a significant historical legacy, which became deeply implanted in the business culture of Zhejiang. However, as noted above, proto-industrialization on its own is not sufficient to upturn the socio-economic configurations of the feudal system, especially in the context of stagnant technology and production methods.

When Zhejiang found itself in this condition of stagnation, it was exogenous forces — the inflows of FDI with advanced technology and modern machinery — that brought about the significant changes in technology and methods of production. These exogenous forces triggered the beginning of the machine-centred industrial process in the 19th century and marked the start of modernization in Zhejiang. In other words, initiated by exogenous forces, modern mechanized factories supplanted the cottage industries as the predominant form of manufacturing, which played a significant role in accelerating the transition process in Zhejiang. To

prevent being excluded from the market, the local merchants showed a strong willingness and a high level of flexibility and adaptability to adopt the new technologies, methods of production, and banking system, which was a major step in the transition towards large-scale mechanized manufacturing and a modern banking system. Hence, exogenous forces were the significant drivers in advancing the transformation in Zhejiang at a time when local industries were experiencing stagnation and had few linkages to the outside world because of the isolationist foreign policy of the imperial state. These external forces substantially extended and renewed the existing local development path with new technologies and new forms of organizations and created a path forward with the modern mechanized production method.

Overall, by virtue of external inputs into the conceptual framework of the business system — namely the inflows of FDI, as well as the cultural factor (two prominent thinkers), and technological factor (advanced technology and modern machines) — the market-oriented trajectory towards modern manufacturing and capitalism initiated in Zhejiang during the late Song period was enhanced and promoted. The predominant manufacturing industries (i.e. textile and handicraft industries), mode and relations of production (i.e. family-based factories and horizontal diversification), and financial system (i.e. private banks) in Zhejiang during the imperial period all show the embryonic form of the existing Zhejiang business system.

In sum, from the time of the Song dynasty, it is possible to detect a market-oriented development trajectory in Zhejiang, which shaped the early form of the Zhejiang business system and had a profound impact on future regional development.

5.1.2 The emergence of modern industry in Yunnan during the imperial period

Before the First Opium War (1271-1840)

Before the outbreak of the First Opium War in 1839,⁷ imperial China had adopted isolationist foreign policies for centuries. In 1374, the Ming government issued the sea ban, and in 1757 the Qing government adopted the Canton System, which limited China's trade with the West to only a single trading port, Canton (Carroll 2010: 51). China's defeat in the war caused tremendous social changes. Hence the First Opium War is considered as the turning point from imperial China to modern China.

Before 1271, Yunnan was an independent kingdom called Nanzhao, inhabited by various ethnic groups. After being conquered by the Yuan empire, the territories

of the Nanzhao kingdom were governed by Yuan and set up as a province named Yunnan (Li, G. 1995). In the Yuan dynasty (1271–1368), the Tusi system was established and implemented in regions inherited by ethnic groups (Yang, B. 2009). Under this system, the leaders of ethnic groups were recognized and ranked as imperial officials to rule over their areas (ibid.). The imperial government seldom intervened in the internal affairs of ethnic groups (ibid.). Thus, locals, especially ethnic minorities, still maintained slash-and-burn agriculture, and bartering was the major method for trade (Li, G. 1995, Yang, B. 2009). As a result of increasingly severe rebellions by tribal leaders and conflicts between ethnic groups, the Qing government abolished the Tusi system in 1726 and assigned government officials to Yunnan (Li, S. 1984). From then on, Yunnan was directly governed by the imperial state. From the time of the Ming dynasty, large numbers of people migrated from East imperial China to Yunnan. For example, from 1368 to 1424, about 2 million people moved to and settled in Yunnan, which not only led to an expansion of cultivated arable land but also brought new agricultural technologies and farming practices such as the introduction of agricultural tools, and double cropping of rice and other grains (Wang 2004, Yang, B. 2009). With the significant expansion of inputs of labour and cultivated area, as well as the improvements of agricultural technology, the productivity and output of grains increased, which spurred agricultural labour to shift from farm work to manufacturing and commerce (Yang, B. 2009). Fairs and traditional handicraft workshops emerged in major cities in Yunnan, such as Kunming and Qujing, while in remote areas, the agricultural population was still involved in farming for own consumption (subsistence) rather than for local exchange (Li, G. 1995). Overall, the improvements in the agricultural farming system and the emergence of workshops and fairs in major cities had little impact on the feudal agrarian society, or on facilitating the process towards proto-industrialization. Outside the agricultural sector, it was the resource-dependent industries that had played the most significant role in Yunnan since the imperial period.

Yunnan had been renowned for centuries for its rich mineral and metal resources. The earliest documented evidence of silver, copper, and tin in Yunnan date back to the Han dynasty (25–220), and the extraction of mineral and metal resources in Yunnan has a long history (Li, G. 1995). During the Yuan dynasty (1271–1368), the annual output of silver in Yunnan was about 6.13 tons, accounting for about 50% of the total output of the Yuan empire. At a conservative estimate, throughout the Ming Dynasty (1368–1644), Yunnan contributed 950–2,500 tons of silver to support the Ming economy (Quan 1967, Yang, B. 2009). In the Yuan-Ming period,

the imperial state had control over the major silver mines, and local merchants were allowed to apply for a mining extraction permit (Quan 1967). The imperial government estimated the output of privately owned silver mines each year, and 30% of estimated silver output, named silver tax (*yin ke*), was to be submitted to the imperial government (*ibid.*). Once silver was monetized, demand greatly increased. In the late Ming period, the silver tax reached 40% to 50% of output, which resulted in the exhaustion of silver reserves under the traditional extraction methods (Quan 1967, Yang, B. 2009). By 1855, 18 out of 19 silver mines in Yunnan had been closed due to resource exhaustion (Li, G. 1995).

Copper mining in Yunnan started during the Yuan dynasty, and the imperial state of the Ming began to use copper to mint coins (Li, G. 1995, Yang, B. 2009). As demand for copper rose sharply, copper output in Yunnan substantially increased and peaked in the Qing dynasty (1636–1912). Yunnan became the only supplier for the imperial mint in Beijing (Li, G. 1995, Yang, B. 2009). Copper mining in Yunnan was fully controlled and managed by the imperial state (Yang, B. 2009). More specifically, Beijing paid the imperial government of Yunnan 42 tons of silver as state loans for extracting 3,000 to 3,500 tons of copper each year (Li, G. 1995). Yunnan also supplied about 1,000–1,500 tons of copper to other provinces for their mints and for utensil manufacturing (*ibid.*). To extract the copper, the imperial Yunnan government recruited miners and investors to operate mines (*ibid.*). From 1736 to 1795, the average output of copper in Yunnan reached 6,000 to 6,500 tons (*ibid.*). However, as with silver, the overextraction of copper resulted in a sharp decline in output (*ibid.*). Due to the exhaustion of silver and copper reserves, in the mid-18th century, the Yunnan mint started to use tin to manufacture coins (*ibid.*). Other resources like iron, coal, and salt had also been extracted and used on a large scale during the Ming-Qing period (*ibid.*).

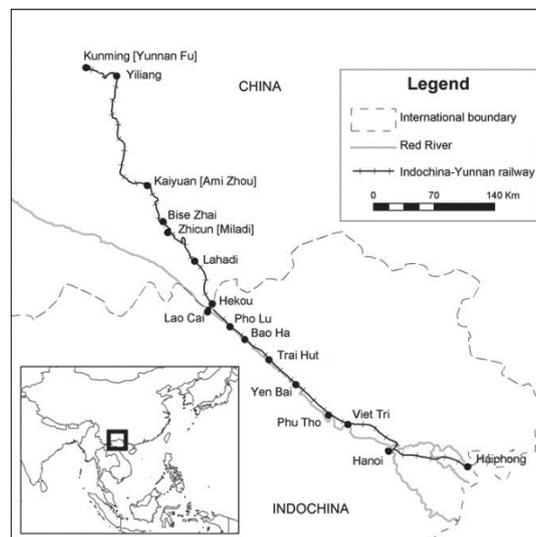
Mining had thus been the major industry in Yunnan for centuries, and the vast majority of mines were imperial state-owned. During this period, the extraction of metal and mineral resources in Yunnan was monopolized by the imperial state. Although the state allowed local merchants to invest and operate mines, local resources, especially silver and copper, were mainly used for national interests, making significant contributions to the imperial economy, rather than promoting local economic development. As Yang Bin (2009) concludes, the imperial state's economy was built on exhausting local resources. Nevertheless, the resource-dependent and imperial state-owned and controlled heavy industries predominated in Yunnan during the imperial period, which is highly consistent with the predominant features of

ownership and industrial structures of the existing Yunnan business system as discussed in Chapter 4.

The Opening of the Kunming-Haiphong Railway

After being defeated in the First Opium War, the Qing government was compelled to sign the Treaty of Nanking, in which the imperial state agreed to open five treaty ports alongside Canton and to abolish the Canton System (Ma 1981). The Second Opium War broke out in 1856, leading to the Treaty of Tianjin, in which another 11 treaty ports were agreed (Ma 1981). After this, French and British colonial administrations were ambitious to achieve the opening of the whole of China, including the southwest regions. In 1862 the Treaty of Saigon was signed between France and the last precolonial emperor of Vietnam, and from 1866 French explorers started surveying the Mekong River from Saigon to Kunming (Rousseau 2014). They wrote reports about Yunnan's rich resources, including mines and various agricultural products (*ibid.*). In order to access Yunnan's resources and export European goods to China, the French colonial administration decided to develop a regular trading network from their colonies to Yunnan by building the Kunming-Haiphong railway (*ibid.*).

Figure 5.1
The Kunming-Haiphong Railway



Source: Rousseau (2014).

In 1885, the Qing government signed a treaty with the French government, in which the imperial state agreed to open Mengzi in Yunnan for foreign merchants, and the French government was allowed to invest and build railways in China (Li, G. 1995). Then, in 1903, the French colonial administration obtained the right to own, operate, and manage the railway (*ibid.*). From 1901 to 1910, the French government invested 158.46 million francs in building a 855km railway, including the section within China from Kunming to Hekou (466km) and the section within Vietnam from Lao Cai to Haiphong via Hanoi (389km). It was the first railway in southwest China (*ibid.*).

After the opening of the Kunming–Haiphong railway, as well as the treaty ports, a large number of foreign goods entered the local market, which shook the local economy. For products such as processed agricultural products, cigarettes, textiles, and handicrafts, there were significant differences in terms of price and quality between those made by traditional methods of production and those made by modern manufacturing (*ibid.*). In other words, compared with local products, imported products were sold at a cheap rate and with higher quality. Thus, the demand for foreign products, especially cotton fabric, cigarettes, and kerosene, increased sharply. For example, in 1909, the amount of imported cotton was 2,883 tons, and in 1910 it reached 4,239.6 tons (Ma 1981: 73). With a large number of foreign enterprises being established alongside the railway, imported products quickly monopolized the local market (Li, G. 1995). Local products had been largely driven out of the market, and a large number of traditional manufacturing workshops in Yunnan closed down (*ibid.*).

At the same time, due to the demand in Western countries, significant quantities of tin were extracted and exported from Yunnan once Mengzi opened as a treaty port. The arrival of the railway was a major spur for the mining industry in Yunnan. In 1890 the output of tin was about 1,000 tons; in 1909 the export of tin had increased to 4,282 tons (Ma 1981:73, Li, G. 1995). In 1910, the amount of tin exported from Yunnan was 6,195 tons, and in 1917 it reached 11,223 tons, which accounted for 90% of exported tin in China (Ma 1981:73, Li, G. 1995). Moreover, in 1910, the output of coal in Yunnan could not meet the needs of the railway and mining, so that coal for trains had to be transported from Vietnam to Yunnan (Li, G. 1995: 322). As the demand for coal continued to increase, the coal mining industry in Yunnan developed rapidly. In 1915 the output of coal in Yunnan reached 25,000 tons (*ibid.*). Although the French colonial administration failed to obtain mining rights in Yunnan, they fully controlled the operation of the railway and customs tariffs in Vietnam. Hence the French colonial administration could arbitrarily price

transportation and administration fees, as well as customs charges. From 1913 to 1920, transportation fees rose five times, and in 1920, the transportation fee for exported products (per ton) rose about 142% (Ma 1981: 74, Li, G. 1995). The annual revenues of the railway were approximately 67 million francs, which generated about 10 million francs of net profits (Ma 1981: 74).

The opening of the Kunming–Haiphong railway exerted a profound influence on Yunnan’s economy. Before 1910, the major form of transport in Yunnan was road transport, which considerably restricted trading activities and expansion for supra-regional markets. Products were produced mainly for regional consumption. Hence, when the colonial project brought in the steam train, with foreign capital and products, regional and interregional trade expanded at a fast pace in Yunnan. Alongside the opening of the railway, new technologies, machines, and methods of production were introduced and adopted in Yunnan. For instance, from 1910, advanced machines were imported and utilized in the mining and manufacturing sectors, such as leather-goods manufacturing, flour milling, and printing (Chen 2000: 77). Two power stations and several electric bulb manufacturing enterprises were established (Chen 2000: 77). The arrival of new technologies brought about a transition from hand production methods to modern factory industrialization. In short, the opening of the railway directly triggered the process of transition from a feudal agrarian society to the path towards modernization and industrialization in Yunnan.

At the same time, the imperial state also took the initiative in adopting new technologies after it was forced to open the treaty ports in 1844 which allowed an influx of advanced western machines. In 1861, the imperial state launched the Self-Strengthening Movement to promote industrialization by investing in the arms industry and other manufacturing sectors. From the late 19th century, the imperial government established imperial state-owned and state–private co-owned⁸ modern mechanized factories⁹ in Yunnan (Ma 1981, Li, G. 1995). However, there was little change in most privately owned enterprises and factories, where traditional methods of production continued due to the lack of funds (Ma 1981). Only a few enterprises could afford advanced machines. Therefore, it was imperial state-owned and state–private co-owned enterprises, along with just a few privately owned enterprises, that saw the technological advancements in manufacturing during the imperial period in Yunnan.

Based on the discussion above, the opium wars and the opening of the treaty ports and Kunming–Haiphong railway can be viewed as “exogenous shocks” which directly activated the transformation process from the feudal mode of production

to modern factory industrialization, facilitated market expansion, and promoted the development of existing local industries (i.e. the highly resource-dependent and imperial state-owned and controlled heavy industries) in Yunnan. The arrival of these external forces marked a significant watershed in the process towards industrialization and modernization.

The Formation of Yunnan Regional Monopoly (1912–1949)

After the Qing dynasty came to an end, a group of warlords known as the Yunnan Clique (*dian xi*) took over Yunnan from the imperial government.¹⁰ From 1912 to 1949, the Yunnan Clique collaborated with the Kuomintang (KMT) Nationalist government, but at the same time, Yunnan Clique kept the full autonomy within Yunnan.¹¹ During this period, they established an independent social, economic, and institutional system in Yunnan.

In 1912, all of the imperial state-owned and state-private co-owned enterprises were taken over by the Yunnan military government (Li, G. 1995). At the same time, the Yunnan military government established Fudian Bank as a way of building a highly unified financial and fiscal system, including issuing local currency (*dian bi*), controlling the mint, levying taxes, and organizing financial affairs (*ibid.*). As a result, fiscal revenues in Yunnan increased sharply in the 1930s; annual fiscal revenues were maintained at 30 million local currency, and the fiscal surplus was about 7 million local currency (*ibid.*). Apart from military and government expenditures, the majority of fiscal revenues were used for investing in mining and smelting industries, the textile industry, tobacco growing and cigarette manufacturing, chemical and pharmaceutical manufacturing, match and paper making, and two electric power plants for maintaining power supply (*ibid.*).

Before the outbreak of the Chinese War of Resistance against Japan, in 1937, there were 3,925 enterprises in China, 81% of which were located in coastal east China (Su 2015). In wartime, a large number of enterprises had been destroyed due to the Japanese invasion. Thus, in 1937, the KMT Nationalist government started to move enterprises and factories from coastal areas to southwestern regions like Yunnan, Sichuan, and Chongqing (*ibid.*). Some of these KMT Nationalist government-owned modern mechanized factories and enterprises were re-established in Yunnan. For example, Central Machinery was moved and re-established in Kunming in 1939, and became the first and the largest machinery manufacturing state-owned enterprise in China (Zhao 2015: 142). By the end of 1940, at least 600 enterprises had relocated to Yunnan, 448 of which were mining companies, with the rest including both military enterprises, such as the Central Aircraft Manufacturing

Company, and companies that produced civilian products (*ibid.*). To facilitate transportation for machines and equipment, the KMT Nationalist government and the Yunnan military government built roads linking Yunnan with adjoining provinces and countries, including Myanmar (*ibid.*: 141–142). Meanwhile, a large number of enterprises and factories were solely or jointly founded by KMT nationalist government and the Yunnan military government (Li, G. 1995). Given the large-scale investment by the two governments, the development of highly resource-dependent and capital-intensive industries proceeded at pace. Some of those enterprises still exist and play a crucial role in Yunnan's economy. More importantly, state-owned enterprises dominated the market, with the KMT Nationalist government fully controlling and managing Yunnan's mineral and metal resources, the tobacco industry, and match manufacturing by 1939, which left no room for private enterprises in Yunnan (*ibid.*). In short, the highly monopolized state sector placed substantial constraints on the development of the private sector in Yunnan.

The discussion above makes it clear that, since the late 13th century, Yunnan's economy has been characterized by highly resource-dependent and capital-intensive industries due to the province's rich natural resources. This resource endowment determined the distribution of local resources and interests, as well as the regional industrial structures in Yunnan. As the “commanding heights of the economy” (Whitely 1999: 147), the imperial state and local ruling parties directly controlled the ownership of core resource-dependent industries, such as mining and smelting, and the tobacco industry. The imperial, military, and KMT state-owned enterprises were absolutely dominant in the Yunnan economy, which resulted in the absence of the private sector in local economic development for centuries. Hence, a high level of state intervention in the economy can be observed, dating back to the 13th century. The path of development in Yunnan since the Yuan dynasty was not a spontaneous process of transition from feudal production towards modern factory industrialization. The transition to industrialization in Yunnan was initiated and facilitated by exogenous forces and the state.

Four historical events — the mass migration, the opening of the Kunming–Haiphong railway and the colonial project, as strong external forces, and the relocation of modern mechanized companies initiated by the state — played a decisive role in the process of industrial transition in Yunnan from the 13th to the mid-20th century. In the Ming dynasty, a large number of immigrants with advanced agricultural technology can be seen as the first external shock,¹² which improved the agricultural/farming system and increased the output of grain, and then induced a

switch of the agricultural population from agrarian production to manufacturing and commerce. The opening of the Kunming–Haiphong railway was the most significant external event in Yunnan before 1949. The colonial project directly stimulated the development of local industries, especially the mining industry. It also passively enabled Yunnan to establish modern mechanized firms with advanced technology and to expand supra-regional markets, which marked the start of modernization in Yunnan. In wartime, the relocation of large numbers of modern mechanized companies from eastern areas to Yunnan by the state significantly enhanced the dominant position of the state-owned resource-based heavy industry in the Yunnan economy. In short, thanks to these external forces and the role of the state, Yunnan was able to “escape” from traditional production methods, and to step onto the path to industrialization and modernization.

Given that local industrial structures substantially conform to the local resource base in regions with large natural resource reserves, forms of capital, including foreign capital and state investment, naturally gravitate towards the richest resources. Hence, in Yunnan, local core industries (i.e. highly resource-dependent heavy industries) got the most funding, and inflows of new technology and advanced machinery brought about significant growth in productivity. In other words, the adoption of new technology and machines largely promoted local core industry and enhanced the local industrial structure. The result of these external forces and state activity was to substantially extend and invigorate the existing local development path with new technology and new forms of organization, and to pave the way for modern mechanized production methods. Since the state retained control over resources, the distribution of these local resources, the dominant position of state-owned resource-dependent industries in the Yunnan economy, and the determining role of the state in coordinating economic activities, all remained unchanged and were even enhanced during the process.

In short, factors external to the conceptual framework of the business system — namely migration, the opening of the railway, and the colonial project — as well as the role of state, each played a crucial role in promoting the development of local core industries. A state-led and highly resource-dependent development trajectory can be observed in Yunnan, which shaped the early form of the existing Yunnan business system and has had a profound impact on regional development.

Before 1949, Zhejiang and Yunnan both made the transition from a feudal mode of production to the path towards modern manufacturing systems. However, the processes of industrialization in Zhejiang and Yunnan exhibited huge regional

differences. Zhejiang and Yunnan followed very different development trajectories in the imperial era. For example, Zhejiang had entered the phase of proto-industrialization during the Song period (920–1279), while the transition in the farming system in Yunnan (i.e. the shift of the agricultural population from agrarian production to manufacturing and commerce) began in the Ming dynasty (1368–1644), after new agricultural technologies and farming practices had been introduced by immigrants. Moreover, compared with the vast waterway system and well-developed ship-building industry in Zhejiang, the major form of transportation in Yunnan before the establishment of the Kunming–Haiphong railway in the early 20th century was road transport, which significantly restricted the development of the supra-regional market.

The discussion above indicates that the regional development trajectories of Zhejiang and Yunnan were shaped by both internal and external factors to the business system. While exogenous forces played an essential role in the transition process in both provinces, they were especially significant in bringing changes in technology and production methods in Yunnan. The major transitions in Yunnan (i.e. the transition in agricultural farming systems and the transition from hand production methods to modern factory industrialization) were initiated by exogenous forces. Without exogenous forces, it is unlikely that Yunnan would have been able to embrace the process of industrialization and expand its market.

It is worth noting that the transition to factory industrialization in the two provinces did not bring about the trend towards convergence of a homogeneous and monotonic type over time, but rather enhanced and promoted the two distinctive regional development trajectories. Since the imperial period, Zhejiang has followed a market-led development trajectory while Yunnan's path has been state-led. Regional core industries have attracted and received the most funding, including FDI with associated inflows of new technology and advanced machinery, as well as state investments, further enhancing the regional industrial structures. Given the highly concentrated ownership of local resources and regional core industries, the monopolized local market, and the high level of state intervention in the local economy, Yunnan can hardly be said to have established a market-oriented regional development trajectory, let alone to have promoted the emergence of capitalism. An increasing divergence between the local economic development paths of Zhejiang and Yunnan before 1949 can thus be observed. The institutional changes in the two provinces (i.e. the transition from the feudal agrarian society to Zhejiang's modern industrial capitalism and Yunnan's state monopoly) shaped and were shaped by the

region-specific industrial structure, which in turn reinforced the tendency towards a relatively cohesive system at the local level, even in the transitional feudal economy.

To sum up, the path of development in Zhejiang and Yunnan, which culminated in the market-led business system in Zhejiang and the state-led business system in Yunnan described in Chapter 4, can be traced back with a relatively high degree of consistency to events and developments long before the establishment of P.R. China.

5.2 The position of Zhejiang and Yunnan in the planned economy period (1949-1978)

5.2.1 An overview of the planned economy in China

China had begun the process of transition from a feudal agrarian society to a modern industrial society before the establishment of P.R. China in 1949. However, successive years of wars and social upheaval significantly interrupted the process of transition and caused economic devastation. In 1949, the country's total output was only 44.6 billion yuan (5.74 billion euro), 70% of which was generated by the agricultural sector, while 30% came from the industrial sector (Hu 2001), with the output of modern industry accounting for about 17% of the total output (Chen, Y. 2004: 50). These figures indicate that the economy of most parts of China remained predominantly agricultural with limited industrial growth.

When P.R. China was founded in 1949, the central government made rapid economic recovery and industrialization its top priorities. Based on the process of European industrialization, the common view was that the optimum industrialization sequence must necessarily start with the development of light industry (such as textiles) (Teubal 1973). This pattern could also be observed in the phase of proto-industrialization in Zhejiang. However, in the early 1950s, the industrialization strategy in China was based on the development of heavy industry. The concentration on heavy industry in the initial stage of industrialization was not only to imitate the Soviet economic system but was also based on the argument that this was the optimum way to quickly boost productivity and accelerate the process of industrialization, in light of the given factor endowments for manufacturing. More specifically, the total resident savings deposit in 1952 was only 860 million yuan (110 million euro) (Hu 2001), and net exports in China had been negative during wartime, which resulted in very small foreign exchange reserves in the early 1950s (*ibid.*). This combination of low savings ratio and small foreign exchange reserves meant there were

insufficient national savings to fund a rapid economic recovery and to promote sustainable industrialization.

Under these circumstances, the new government believed that a highly centralized and unified economic system would be the best way to achieve the transition from an agricultural economy to a mass manufacturing-based economy, as it would allow the government to efficiently allocate scarce resources. In short, according to national development strategy in the early 1950s, the development of heavy industry, as the starting point of industrialization, would spur growth in light industry and eventually build an independent industrial system. Therefore, a heavy industry-oriented development strategy was developed and implemented through a highly centralized form of economic planning in China from 1949 to 1978.

The highly centralized and unified economic system

After the establishment of P.R. China, and in order to lay the foundation for promoting its heavy industry-oriented strategy of industrialization, the central government launched the first Five-Year Plan (1953–1957) which concentrated on investing in industry-based projects, establishing enterprises, and collectivizing or nationalizing agriculture, the handicraft industry, and private enterprises, known as socialist transformation. More specifically, under this first Five-Year Plan, there was a sharp increase in the number of projects and central enterprises. From 1953 to 1957, the central government launched 694 industry-based projects, 85% of which involved heavy industry; 156 projects were assisted by the Soviet Union (Hu 2001). The number of central government-owned and operated enterprises rose from 2,800 in 1953 to 9,300 in 1957 (Yu, J. 2019). At the same time, to maximize the efficient use of scarce resources and to coordinate economic activities, the central government extended the socialist transformation to “all sectors relating to the national economy” (Hu 2001). Public–private partnership enterprises were adopted for assistance in the socialist transformation process of private enterprises. By the end of 1956, the agricultural and industrial sectors had completed the process of transition (Hu 2001). In 1957, the number of industrial enterprises, including SOEs and public–private enterprises, reached 170,000 (National Bureau of Statistics 1999). All aspects of procurement, investment, production, supply and distribution, pricing, and financial activities (firms were designated a specific bank account and supervised by a commissioner) were entirely controlled and regulated by the state (Hu 2001, Coase and Wang 2016: 7).

A highly centralized fiscal system was implemented to unify the management of subnational revenues and expenses. According to the “Decision on Centralized and Unified Administration on Fiscal Revenues and Expenditures” issued in 1950, in order to minimize expenditure and maximize utility, (a) local revenue and expenditure budgets were assessed and determined by the central government, (b) local governments were required to turn local revenue over to the central government, (c) local expenditure was apportioned and determined by the central government, and (d) enterprises were not allowed to retain their profits, and costs were taken from local expenditure (He et al. 1990). A unified revenue collection and budget apportionment fiscal system (*tong zhi tong shou*), also known as “eating from one big pot” (*chi da guo fan*), was thus established (Qian 1999, Lin and Liu 2000).

With fiscal management highly concentrated in the central government, local governments had no separate budget and also had no managerial right to adjust the operating budget (Qian 1999, Lin and Liu 2000). Under the unified fiscal system, local expenditure was not linked to local revenue, so that the subnational governments were not responsible for the financial consequences of allocation decisions. Also, the budget apportionment system left no room for inter-jurisdictional coordination. Although the fiscal system was initially designed with the aim of balancing the budget and improving operational efficiency, it failed to provide subnational governments with incentives to devote themselves to local economic development. Furthermore, the highly unified fiscal system might enable the central government to allocate scarce resources efficiently; however, information and coordination problems were inevitable. First, as the increasing number of enterprises and projects had been established by the central government without delegating managerial autonomy to local authorities and enterprises, the central government experienced unavoidable managerial and supervisory difficulties. Second, in the planned economy, prices of all commodities for producers and consumers were set by the central government. However, without a market mechanism, price signals are invalid. It was therefore difficult for the central price-setting authority to collect the actual information on demand and supply that was needed to determine prices and create a rational pricing system — an issue which eventually damaged economic efficiency.

The central government gradually realized the managerial and supervisory difficulties generated by the overcentralized economic system, such as asymmetric information, coordination difficulties, price distortion, and economic inefficiency (Hu 2001; Du, C. 2009). Therefore, in 1956, Mao Zedong gave a speech on “The Ten Major Relationships”, in which he emphasized the importance of mobilizing initiatives of both central and local governments and proposed reshaping the relationship

between central and local governments through delegating decision-making power and supervisory duties to local authorities (Mao 1977). This speech provided a foundation for the decentralization drive during the pre-reform period (Mao 1977, Hu 2001, Du, C. 2009).

The attempts at decentralization during the pre-reform period

To ease managerial and supervisory problems, while at the same time maintaining the centralized and unified economic system, the central government adjusted fiscal arrangements multiple times from 1957 to 1978.

In late 1957, the State Council stipulated a series of regulations for delegating decision-making power and supervisory duties to subnational authorities. By the end of 1958, the supervisory duties and managerial rights of about 80% of industrial enterprises had been devolved to local governments (State Council, Government of China 1958, Zhang, M. 2013). Yu, J. (2019) Notes that 70% of delegated industrial enterprises were engaged in heavy industry, and that 8,100 out of 9,300 central government-owned and operated enterprises were devolved and under the supervision of local governments. At the same time, a system of dual leadership was adopted for supervising and managing enterprises (State Council, Government of China 1957). More specifically, the central government mandated targets of production, number of employees, wages, and profits for delegated firms, and controlled the distribution of resources (State Council, Government of China 1957). Meanwhile, local governments were allowed to adjust the resource allocation based on actual need, on condition that delegated firms fulfilled their production tasks, and to retain 20% of government-mandated profits from the delegated firms and a portion of additional profits¹³ when excess products were produced (ibid.).

In 1958 the central government implemented a five-year fiscal arrangement, known as the determination of expenditures by revenues (*yi shou ding zhi*), which precisely specified the scope of local governments' revenues and expenditures and ratified local budgets and the percentage of shared local revenue (Standing Committee of the National People's Congress 1958). More importantly, local governments were empowered to retain additional revenue and arrange expenditure (ibid.). The percentage of local expenditures to total expenditures increased substantially from 29% in 1957 to 55% in 1961 (Zhang, Q. 2011). These figures indicate that the adjustment of fiscal arrangements after 1958 gave decision-making authority to local governments and fostered local initiatives.

However, the central government rushed into decentralization. Local governments were inexperienced in organizing economic activities, having had limited autonomy and no authority over local expenditures from 1949 to 1957. Therefore, under resource-scarce conditions, the sudden delegation of authority directly resulted in regional protectionism and the radical and overambitious Great Leap Forward campaign (1958–1962), and also substantially increased the gap between the growth of heavy industry and that of light industry, since local governments had to allocate scarce resources to fulfill the targets for heavy industry (Hu 2001). These problems caused a severe deterioration of the national economy. The central government decided to recentralize, taking autonomy away from local authorities and back to the central government, to restore order and deal with the economy. In 1959, the “Zong Er Fen Cheng” fiscal arrangement was applied, in which the central government determined the distribution of revenues between central and local governments once a year (Chen and Guo 2016: 98). In 1962, the proportion of local revenue to total revenue was less than 40% (Zhang, Q. 2011). The supervisory duties and managerial rights of delegated industrial enterprises were also retrieved from local authorities. The number of central government-owned and operated enterprises jumped from 1,200 in 1958 to 10,533 by the end of 1965, which together produced 42.2% of total industrial output (Lin 1999: 32).

However, under the recentralized administrative system, information and coordination problems returned. Consequently, after the recovery from the severe economic recession caused by the Great Leap Forward campaign, the central government decided to conduct the second wave of decentralization during the pre-reform period.

In 1971, the central government implemented an annual reassignment of fiscal contractual responsibility policy (*ding shou ding zhi, shou zhi bao gan*), which substantially expanded local financial power and fiscal responsibilities and provided local authorities with greater incentives for local development (Chen and Guo 2016: 98–99). This fiscal arrangement prescribed revenue and expenditure responsibilities for local governments and set an exact quota of revenues which should be turned over to the central government (*ibid.*). Importantly, local governments were allowed to retain excess profits or received grants for deficits (*ibid.*). In 1974, local revenue accounted for 82.8% of total revenue (National Bureau of Statistics 2017). In 1969, the central government had downsized the number of administrative divisions of central governments from 90 to 27, and once again devolved decision-making power and supervisory duties to subnational authorities (Zhao, X. 2007). From 1965 to 1976, the number of central government-owned and operated enterprises

declined sharply from 10,533 to 1,600 (*ibid.*). However, due to the economic and political chaos caused by the Cultural Revolution, in 1974, the central government decided to recentralize financial power by fixing the percentages of profit retention and prescribing expenditures. In 1976, fiscal arrangements were modified again to provide incentives for local governments (Chen and Guo 2016: 98–99).

As this discussion shows, the serious managerial and supervisory difficulties which were generated by overcentralization compelled the central government to adjust fiscal arrangements and increase subnational authorities' decision-making power and supervisory duties. Although the central government made several attempts to decentralize financial power between 1950 and 1978, the pre-reform period was characterized by a highly unified and centralized fiscal system of revenue collection and budget appropriation (Qian 1999, Lin and Liu 2000). In other words, during this period, all of the fiscal rearrangements were applied under the planned economic system. The central government acted as the main investor and played an absolute leading role in economic development; decentralization during the pre-reform era failed to delegate actual decision-making power and managerial rights to local governments. Moreover, the main aim of decentralization, prior to reform, was not to change the role of local governments in regional economic development, but simply to solve information and coordination problems and provide incentives.

This examination of the development trajectory in the planned economy period, including the severe economic recession and the economic consequences of the radical and overambitious political and economic campaign during the pre-reform period, provides convincing evidence that:

- a. The “imported” and “transplanted” Soviet unified and centralized economic system was not the optimal option for deploying China's scarce resources and promoting its industrialization in a sustainable way;
- b. The choice of heavy industry-oriented development strategy failed to build up an independent industrial system and caused unbalanced growth of heavy industry vis-à-vis light industry.

Due to the absence of market mechanisms and actual decision-making power for subnational authorities, information and coordination problems, allocative inefficiency, and lack of incentives were inevitable in the highly centralized and unified planned economy system. In short, the planned economy system in place from the 1950s to 1978 had been proved a failure. Although the central government was unable to establish efficient and relatively stable fiscal arrangements, it did gain

practical experience from the unsuccessful attempts of decentralization during this period, which, to a certain degree, reduced the fiscal policy implementation barriers for the coming economic reform in China. Therefore, once the political chaos ended, the central government immediately began the market-oriented transition from a planned economy to a market economy.

5.2.2 The marginalized position of Zhejiang in the planned economy period (1949-1978)

As already described, long before the establishment of P.R. China, Zhejiang had been on the path towards modern industrialization and capitalism, with an identifiable market-oriented development trajectory. However, due to the implementation of the socialist transformation of private enterprises from 1953 to 1957, the predominant private sector enterprises and private financial system in Zhejiang had been collectivized or nationalized (Chen 2005).

To achieve the transition from an agricultural economy to a mass manufacturing-based economy, a heavy industry-oriented development strategy with a highly centralized form of economic planning was developed and implemented in China from 1949 to 1978. For reasons of national security, the central government would not initially select regions situated in the coastal area to establish the core heavy industries.¹⁴ As Zhejiang province is situated in the eastern coastal area, it was not given any priority by the central government during the initial period of the establishment of China (Coase and Wang 2016). Moreover, Zhejiang is poorly suited to developing heavy industry due to its scarcity of major energy, metal, and mineral resources. Hence, from the early 1950s to the late 1970s, because of its location and geographic constraints, Zhejiang province was marginalized in the state's heavy industry-oriented development strategy and received very little central government investment.

The total national investment in infrastructure from 1953 to 1978 was 646.4 billion yuan (81.1 billion euro), while the infrastructure investment in Zhejiang was only 9.9 billion yuan (1.24 billion euro), accounting for 1.5% of total investment, which ranked about 24th out of 31 provinces and autonomous regions. From 1952 to 1978, the state investment per person in Zhejiang was 411 yuan (51.5 euro), just 50% of the average national level, and the lowest in China (Ma, L. 2008). Moreover, as Table 5.1 shows, from 1953 to 1980 the number of medium and large-sized projects launched in Zhejiang was extremely small. From 1953 to 1957 central government invested in just seven projects in Zhejiang; the only regions with lower numbers of projects were Guangxi (three) and Tibet (three) (National Bureau of

Statistics 1996). After a slight increase from 1958 to 1965, the number of projects dropped again, representing 0.9% of the total number of centrally funded projects from 1971 to 1975 and ranked 26th among 31 provinces and autonomous regions. (National Bureau of Statistics 1996).

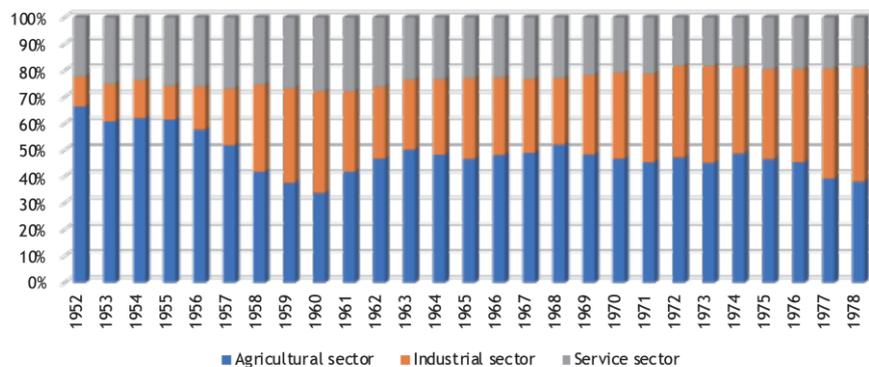
Table 5.1
The medium and large sized of project launched in Zhejiang (1953-1980)

	1953-1957	1958-1962	1963-1965	1966-1970	1971-1975	1976-1980
National	595	581	355	743	742	515
Zhejiang	7	16	11	9	7	18

Source: National Bureau of Statistics 1996

Being marginalized in the heavy industry-oriented development plan, receiving little central government investment, and carrying out very few medium and large-sized projects, the growth of the state sector in Zhejiang remained weak, even under the highly unified and centralized arrangement.

Figure 5.2
The distribution of GRP in Zhejiang (1952-1978)



Source: National Bureau of Statistics 1996

During the planned economy era, the agricultural sector had a dominant position in Zhejiang. Figure 5.2 shows that from 1952 to 1978, the agricultural sector contributed the largest proportion of GRP in Zhejiang, surpassing the industrial and services sectors. Although the output of the industrial sector in Zhejiang gradually increased, in 1978 the proportion of industrial output in Zhejiang was 5.3% lower than the overall proportion of industrial sector output in China, while the proportion of agricultural output in Zhejiang was 9.4% higher than the national

average (National Bureau of Statistics 1996). In the same year, the agricultural population accounted for 88.6% of the total population in Zhejiang (Zhejiang Bureau of Statistics 2016). However, due to the stagnation of agricultural technology, the lack of spare land for agricultural expansion, Zhejiang's marginalized position in the national development strategy, and restrictions on migration, especially for rural workers, there was an increasing problem of surplus agricultural labour struggling to survive. Taking Wenzhou as an example, in 1978, there were at least one million people who could be classed as surplus agricultural labour (Ma 2009: 6). In the context of the serious economic conditions that afflicted all of China as a result of overcentralization, surplus agricultural labour in Zhejiang was eager to move away from the land and search for employment. At the same time, the severe problem of unemployment also spurred local governments to put more efforts into creating job opportunities.

In summary, during the pre-reform period, Zhejiang was marginalized in the national development strategy, which seriously affected local economic development. Simultaneously, the highly centralized and unified fiscal system failed to provide incentives to local governments to promote regional development. This "passive" economic development path resulted in the slow growth of the state-owned industrial sector. However, precisely because of its weak state sector, Zhejiang would find itself at an institutional advantage in the coming transition from planned economy to market economy.

5.2.3 The Third Front Movement in Yunnan in the planned economy period (1949-1978)

As described above, Yunnan was in a very different position to Zhejiang. Because of its rich mineral and metal reserves, the state and local ruling parties in Yunnan had kept direct control over the ownership of core resource-dependent industries since the imperial period. Long before the establishment of P.R. China, the state-owned resource-based heavy-industry enterprises absolutely dominated the Yunnan economy, which resulted in the absence of the private sector in local economic development for centuries. Unlike Zhejiang, the development trajectory in Yunnan before 1949 was state-led and highly resource-dependent. After P.R. China was founded in 1949, the central government took over the enterprises owned by the military government or KMT, which were mainly involved in resource-based heavy industry. Due to the long-standing and highly concentrated ownership of enterprises, the regional industrial structure — including the predominant forms of enterprise and the main driving forces of the local economy — had remained virtually

unchanged throughout successive years of social upheaval and had even been enhanced in the planned economy period. The central government's heavy industry-oriented development strategy was closely aligned with the existing industrial structure and economic configuration in Yunnan. Hence, the state-led and resource-dependent heavy industries' dominance of the regional development path in Yunnan had persisted and increased.

From 1964, based on national defence considerations, the central government instigated the "Third Front Movement", which was primarily a military-oriented development programme (Naughton 1988: 351). The "Third Front" was a military geographical concept, which involved 13 provinces in southwest and mid-western regions in China, including Yunnan province (Chao 2009). In order to create a self-sufficient industrial base area for a strategic reserve, the central government directly invested in national defence through military hardware, but also through infrastructure such as transportation, mining, machinery production, energy plants, etc. (Naughton 1988).

In 1965, the central government drew up the Third Five-Year Plan (1966–1970) and launched 21 national projects, including coal mining, electric power supply, fertilizer production, and road building, and involving a total of 220 million yuan (27.8 million euro) of investment in Yunnan. At the same time, the provincial government initiated 59 provincial projects and invested 329.8 million yuan (41.7 million euro) in heavy industry and infrastructure (Chao 2009). In 1966 the amount of investment in fixed assets in Yunnan was 1.1 billion (0.14 billion euro), ranked 4th out of 31 provinces and autonomous regions, and in the following years, the annual investment averaged 800 million to 900 million yuan (100–112 million euro) (National Bureau of Statistics 1996). However, due to the economic and political chaos caused by the Cultural Revolution, only 40% of projects were completed, which caused huge losses and exerted a significantly negative impact on Yunnan's economic development (Chao 2009: 105).

In 1969, the central government decided to launch the second round of the Third Front Movement, in which it planned to build a strategic base in Yunnan and encouraged the utilization of the region's mineral and metal resources in developing the steelmaking and other nonferrous metal making industry (Chao 2009: 106). Thus, the provincial government selected Kunming, Qujing, Dali, and nearby areas to establish a heavy industry strategic base. From 1969 to 1973, 70% of infrastructure investment went to the selected areas. Moreover, from 1969 to 1971, 53 ordnance factories, shipyards, and communications equipment factories were

established (ibid.: 107). Yunnan's total industrial output value in 1969 was 2.2 billion yuan (0.28 billion euro), which ended the downward trend of its industrial output in previous years (ibid.). However, this costly programme resulted in a severe imbalance between agriculture, light, and heavy industry, with the result that, in 1973, the provincial government had to reduce infrastructure investment by 15% and give priority to the development of agriculture (ibid.).

In 1980, the Third Front Movement came to an end. From 1953 to 1978, the total investment in infrastructure in Yunnan was 17.4 billion yuan (2.18 billion euro), and from 1966 to 1980, central government carried on 64 national projects and invested 15.1 billion yuan (1.9 billion euro) in Yunnan, accounting for 7.35% of total national investment (National Bureau of Statistics 1996, Chao 2009: 105). During the Third Front Movement, 168 "Third Front" enterprises were established, including 38 military industry enterprises and 126 enterprises in heavy industry (Chao 2006: 33). By 1980, there were 47 military enterprises in weapons manufacturing, shipbuilding, aerospace, the electronics industry, and the nuclear industry (ibid.). With the enormous national and provincial investment in heavy industry and infrastructure construction, Qujing became the second-largest industrial city in Yunnan.

Since its establishment in the Yuan dynasty, Yunnan has gone through dramatic shifts from a state monopoly economy to a planned economy. It is interesting that for centuries, although Yunnan has experienced these major changes, the industrial structure, the distribution of local resources, and the predominant type of enterprises has not changed. During the Ming-Qing period, the imperial state maintained tight control over local resources; during wartime, the provincial military government and KMT monopolized the local core industries; and after P. R. China was founded, the central government adopted a highly centralized and unified economic system. During the pre-reform period, with central government investment, Yunnan's dominant industrial and institutional features — a strong state sector, the predominance of highly resource-dependent heavy industries, and the long-term absence of the private sector — were strengthened and enhanced. However, the long-standing institutional and industrial features in Yunnan generated a relatively high level of "institutional stickiness" in regional development and became an institutional disadvantage in the transition from planned economy to market economy.

To sum up, prior to 1949, Zhejiang and Yunnan were on very different development trajectories and the processes of industrialization in the two provinces showed huge regional differences. Although both were eventually able to move away from a feudal mode of production towards a modern manufacturing system,

the transition to industrialization in the two provinces did not illustrate the trend towards convergence of a homogeneous and monotonic type over time, but rather formed two distinctive regional development trajectories: Zhejiang's market-led and Yunnan's state-led developmental paths.

In the transition from the feudal economy towards industrialization and modernization, the developmental paths of Zhejiang and Yunnan showed a clear tendency to shape a cohesive system at the regional level. The regional development paths and the local industrial, economic, and institutional structures and configurations in the two provinces were substantially enhanced and promoted by adopting new technologies and methods of production. However, after the establishment of P.R. China, the imposition of a highly centralized and unified economic system left little room for subnational authorities to promote regional economic development. The socialist transformation compelled Zhejiang to deviate from its market-led development trajectory, while Yunnan's development trajectory persisted and was enhanced. Hence, the highly unified and centralized arrangement, the socialist transformation, and the heavy industry-oriented development strategy formed an institutionally monotonic type of development trajectory.

Although, institutionally, both Zhejiang and Yunnan completed the socialist transformation and carried out national development plans, the regional differences between them persisted. The implementation of the national development strategy at the local level was shaped by the region-specific resource base and geography, as well as institutional setting. Thus, the implementation of the monotonic type of development trajectory at the national level did not bring about convergence to a homogeneous and monotonic type of development in Zhejiang and Yunnan. The path of development in Yunnan during the pre-reform period was highly consistent with the pre-existing industrial and institutional configurations, while the development of the state sector in Zhejiang was relatively slow.

An examination of the transition from feudal system to proto-industrialization and then socialism in Zhejiang and Yunnan shows that the process was full of conflicts, involving social order, institutional structure, the distribution of interests, and the emergence of novelty. The discussion above has already answered the questions listed at the beginning of this chapter.

- a. The great diversity of regional historical circumstances and conditions and the pre-existing industrial and institutional arrangements in Zhejiang and Yunnan dating back to the imperial period do matter. Internal factors, such as the regional resource base (especially in Yunnan), geographical location,

industrial structure, and the strength of state intervention in local economic activities (the role of the state), and external factors, such as cultural factors, exogenous forces like migration and the inflow of FDI and new technologies, mutually shaped the historical development trajectories in Zhejiang and Yunnan. The pre-existing industrial and institutional configurations and structures are not only relevant to economic processes and outcomes but also exert a profound impact on the existing forms of development patterns.

- b. The highly unified and centralized arrangement and the socialist transformation during the period of the planned economy did not completely alter the pre-existing regional economic and institutional configurations, or eliminate the regional differences between Zhejiang and Yunnan. Although Zhejiang and Yunnan institutionally formed a monotonic development trajectory during this period, the heavy industries and the state sector in Zhejiang were not well developed, while the industrial structure and the state sector in Yunnan had been significantly enhanced. The regional differences between Zhejiang and Yunnan had persisted during the planned economy period.

Notes

¹ The population of the Yangtze River Delta region was about 8.7 million in the early Ming dynasty, and in the mid-Qing period, the number reached 26.4 million (Li, B. 1985: 160).

² Agricultural production first increased because of the increase in capital and labour inputs and then achieved an equilibrium (Perkins, as cited in Chen, N. 1972).

³ From the time of the Song dynasty, handicraft making in Zhejiang included porcelain and pottery making, wood and stone carving, and basket making (Yang 1993, Zhang and Yang, 2006, Ji and Wang 2014).

⁴ Ship building in Zhejiang was in a leading position during the Song dynasty (960–1279), which contributed the major part of Song's fiscal revenues (Zhang and Yang 2006).

⁵ Compared with merchants in Zhejiang, the merchant groups from other regions, like Shanxi (*jin shang*), Anhui (*hui shang*), Jiangsu (*su shang*), and Guangdong (*yue shang*), seldom diversified their businesses.

⁶ For example, textiles and apparel, matches, and electric bulb manufacturing, paper making, oil-pressing, etc.

⁷ The first Opium War (1839–42) was fought between the Qing and Britain. It was the result of the imperial state's attempt to suppress the illegal opium trade, which had led to widespread addiction in imperial China and was causing serious social and economic disruption. British traders were the primary source of the drug in China (Pletcher 2020).

⁸ To solve the fund-raising problem, the imperial government introduced imperial state–private co-ownership enterprises in the mining industry (Ma 1981). Although the imperial state encouraged local merchants to invest in mining, the proportion of local merchants was relatively low (Ma 1981, Li, G. 1995).

⁹ The imperial state-owned and state–private co-ownership factories were mainly involved in mining, minting, and handicraft making (Ma 1981, Li, G. 1995).

¹⁰ The Yunnan Clique grew out of the New Army, which was formed by the imperial state of the Qing dynasty following Western standards. After the start of the Xinhai Revolution, which aimed at overthrowing the rule of the Qing government, the New Army in Yunnan joined the Beiyang army and took control of Yunnan from the imperial state.

¹¹ When the Qing dynasty came to an end, the Beiyang government took over China for a short period (1912–1928). The army of the Beiyang government was called the Beiyang army. The warlords in Yunnan initially came from this army. Although they did not belong to KMT at start, some of the warlords in Yunnan cooperated and united with KMT. Yunnan Clique kept the full autonomy of Yunnan.

¹² From 1368 to 1424, about 2 million people moved to and settled in Yunnan, which not only resulted in an expansion of cultivated land but also brought new agricultural technologies and farming practices such as the introduction of agricultural tools, and the double cropping of rice and other grains (Wang 2004, Yang, B. 2009).

¹³ The amount of additional retained profits was decided by the central government.

¹⁴ After the end of the Chinese Civil War in 1949, the KMT retreated to Taiwan. In the 1950s, KMT President Chiang Kai-shek launched plans to counterattack mainland China, such as “Project National Glory”.

6

The Development Trajectories of Zhejiang and Yunnan in the Economic Reform (1979-present)

Chapter 5 showed that the planned economy system from 1949 to 1978 was a failure. The unsuccessful attempts at decentralization during the pre-reform period failed to delegate actual decision-making power and managerial rights to local governments and SOEs. The severe managerial and supervisory difficulties, information and coordination problems, subnational authorities' lack of incentives, and unbalanced growth of heavy industry and light industry seemed impossible to resolve in this highly centralized and unified system. Nevertheless, despite the disappointing results, the practical experiences from decentralization facilitated the implementation of decentralization policies in the economic reform that was to come in China. Therefore, once the political chaos had ended and the dust had settled, the central government was in a position to conduct a radical institutional transition from planned economy to market economy in order to restore order and rebuild the devastated economy.

In the pre-reform period, both Zhejiang and Yunnan had completed the socialist transformation and taken part in national development plans; however, as we saw in Chapter 5, the regional differences between Zhejiang and Yunnan persisted.

The main aim of this research is to analyse the developmental path of Zhejiang and Yunnan; therefore, in this chapter, the following questions will be addressed:

- a. How have the development trajectories of Zhejiang and Yunnan been changed and (re)formed in the radical transition from planned economy to market economy?
- b. How do economic actors, such as local governments and enterprises, react, respond, or adjust their behaviour to this radical policy change?
- c. How does the market-oriented reform alter the pre-existing regional economic and institutional configurations and regional differences?

As emphasized earlier in this research, economic actions and behaviour follow a specific logic within the given economic and institutional arrangements. The central government's policies play a key role in forming economic and institutional arrangements, which condition the regional institutional environment for economic actors (e.g. subnational authorities and enterprises). Therefore, before answering the questions listed above, the detailed economic reform process will first be introduced.

6.1 The overview of economic reform in China

Having experienced the severe economic recession caused by the over-centralized economic system and the radical and overambitious political and economic campaigns during the pre-reform period, the major objectives of economic reform were to devolve actual decision-making power to enterprises and local governments, to bring in the market mechanism, and to provide incentives to subnational authorities and enterprises. The Third Plenary Session of the 11th Central Committee of the Communist Party of China in December 1978 marked the start of economic reform. This section will examine how economic reform has been conducted in China.

As the major target of economic reform, decentralization will be studied from the perspective of enterprises (involving the reform of SOEs and the development of the private sector), and the perspective of the central and local levels of government (the fiscal decentralization at both levels, and the subnational fiscal systems). To fully understand the continued enthusiasm of local governments in China for promoting local economic development, two main factors can be highlighted: a) the incentives provided by decentralization reform; and b) the Chinese cadre management and promotion system.

6.1.1 Decentralization

Decentralization to markets: The reform of SOEs and the development of the private sector

During the pre-reform period, all sectors relating to the national economy had completed the process of nationalization and socialist transformation. The overconcentration of authority in the management structure resulted in managerial and supervisory difficulties and problems of inefficiency, and also failed to provide incentives to enterprises to increase productivity. Hence, two core goals in the transition from

a planned to a market economy were the delegation of authority to enterprises, including SOE reform, and the development of the private sector.

(1) The reform of SOEs

In the Third Plenary Session of the 11th Central Committee of the Communist Party of China, the central government emphasized that the priority of economic development was the growth of productivity by devolving decision-making power to both SOEs and local governments. In 1979, the central government carried out SOE reform and directly delegated power to SOEs by allowing them to retain profit and by expanding managerial autonomy. This was the first time that the central government had directly delegated authority to SOEs (Coase and Wang 2016: 39–40). In 1980, the State Council announced that 60% of retained profits were to be used for the enterprise's development and 40% of retained profits were to be used for workers' bonuses (Zhou 2013). In 1981, the central government decided to delegate more autonomy to enterprises, requiring them to assume responsibility for profits and losses under the profit-retention system (*ibid.*).

However, the profit-retention system proved problematic: in order to maximize the retained profit, a large number of SOEs intentionally underreported their profits. Hence, in 1984, the central government introduced a taxation system with a 55% profit tax rate to replace the profit-retention system. The taxation system officially specified the distribution of profits between SOEs and governments (Zhou 2013). This gave rise to new problems, as the 55% profit tax rate and the 10% average adjustment tax rate cut deep into the SOEs' profits and reduced their productivity incentives. As a result, SOEs' output and fiscal revenue declined continuously for 22 months (Zhou 2013). The central government therefore introduced the managerial responsibility contract system in factories and enterprises to increase the profit retained after tax, and to delegate more power to enterprises, separating ownership from management rights, and clarifying the division of responsibilities and powers between the government and enterprises (Huang, Q. 2018).

It is undeniable that from 1984 to 1992, the central government went to considerable lengths to delegate more power to SOEs and to separate ownership from management rights. However, production activities were still prescribed by state plans. Hence, the implementation of the taxation system and the contract management responsibility system did not alter the fundamental relationship between the state and enterprises (Zhou 2013). A speech by Deng Xiaoping in 1992 marked a turning point in SOE reform, and the Constitution issued in 1993 modified the Chinese economic system from a planned economy (as per the Constitution of

1954–1988) into a market-oriented economy. The central government specified that the goal for SOE reform was to establish a “modern” corporate system, which clarified issues of property rights, and specified the separate responsibilities, powers, and functions of the government and enterprises. In 1994, the “modern” corporate system, i.e. the joint-stock company, was introduced in 100 enterprises on a trial basis for two years (He 1995). In 1996, the process of converting SOEs into joint-stock companies was implemented nationally (ibid.).

However, as discussed in Chapter 4, the central government established SASAC in 2003 to appoint executive directors who would supervise and approve companies’ major decisions. Given that SASAC still appoints a high percentage of executive directors, SOEs are still subject to a substantial degree of state involvement in their day to day management. Furthermore, in practice, the salaries of employees are not linked to productivity (Han 2010), meaning that SOEs do not provide strong incentives to workers to increase productivity and improve their products. Hence, future SOE reforms still need to introduce market mechanisms and delegate real managerial autonomy to SOEs. The inefficient management structure of SOEs has become one of the major obstacles in the economic reform, especially in regions with a strong state sector, such as Yunnan.

(2) The development of the private sector

Privatization began in rural areas. In 1979, the central government introduced the “Household Responsibility System” in rural areas. During the pre-reform period, the people’s commune system was adopted in rural areas, with three levels of administrative hierarchy: production team (the basic unit), production brigade, and the people’s commune (the highest level) (Xu 2006). The people’s commune system established a large number of collective ownership “commune-brigade enterprises”, which mainly worked in agro-industry and raw materials industries (ibid.). To support the development of heavy industry, the quota system was used for production (ibid.). The household responsibility system first appeared in Anhui province in 1978, where local authorities gave approval to contract out land and output quotas to 20 households (ibid.). Due to the high output that resulted, the central government rolled out the household responsibility system nationally in the following years. Under this system, the surplus of output quotas was at the households’ disposal. By the end of 1983, 93% of production teams in rural areas had adopted the household responsibility system, leading to a remarkable increase in productivity (ibid.) which laid the groundwork for further development of the private sector.

In 1979, about 15.38 million surplus labourers¹ in China were looking for employment (Gong 2005). The central government acknowledged the “individual economy” as the “appendix to and complement of the socialist collective economy” and in 1981 it promoted the individual economy as a “necessary complement” to socialism, marking the revival of the private economy (Coase and Wang 2016: 58). To solve the problem of surplus labour, the central government permitted workers to operate self-employed businesses, which were prescribed precisely by law, and allowed SOEs to contract out some parts of their businesses, such as handicraft and component manufacturing and repair or other services to self-employed workers, as needed (Gong 2005). By the end of 1980, 400,000 people had started a self-employed business, accounting for 6% of total employment (ibid.).

Individuals or families who ran these individual businesses were permitted to hire a maximum of seven persons, including five apprentices and two assistants as needed (ibid.). This later became the criterion for differentiation between individual businesses and private enterprises (ibid.). In 1982, the central government acknowledged the legal status of the individual economy by writing the individual business into the constitution, meaning that the state shall protect the lawful rights and interests of individual businesses (National People’s Congress, Government of China 1982).

In 1984, the central government officially issued a document on the reform of the economic system. It declared that the focus of economic reform should be to transform the planned economy into a commodity-based economy. The central government also encouraged development of various forms of ownership economy, including individual businesses, under the precondition of ensuring dominance of the common ownership economic system (Wang, C. 2014). From 1981 to 1984, the number of individual businesses in rural areas increased from 961,000 to 7.1 million, while the number in urban area rose from 868,000 to 2.2 million (Wang 2003). Thus, in the space of five years, from 1979 to 1984, individual businesses emerged and mushroomed, especially in rural areas.

After the implementation of economic system reform in 1984, the number of individual businesses rapidly increased and the size of the businesses expanded in the following years. The regulated maximum of seven persons per individual business was not enough to satisfy the demands of growing productivity. The number of individual businesses with eight or more employees gradually increased, leading to the differentiation between individual businesses and what were termed “private enterprises”. In 1988, private enterprises were legalized, and the private sector was officially written into the constitution and recognized as “appendix to and

complement to the collective ownership-based economic system”. The state undertakes to protect the lawful rights and interests of the private sector and enterprise (Wang, C. 2014). By the end of 1988, the number of private enterprises with eight or more employees totalled 225,000 (Gong 2005: 51).

By the end of 1983, the number of employees in commune-brigade enterprises totalled 32.3 million (Hu and Zheng 2003: 57). In 1984, the central government issued a report on the development of commune-brigade enterprises, in which it renamed them “township and village enterprises” (TVEs), and encouraged them to start businesses in food processing, the feed industry, equipment manufacturing, construction material manufacturing, and the energy industry. The central government also offered support to households or individuals to set up TVEs. Hence, TVEs could be run by people’s communes, households, individuals, or other collective forms (Wang, C. 2014). After 1984, numerous TVEs were established in rural area by individuals and households with separate or collective ownership structures. In practice, these new TVEs operated as private enterprises and became the most important contributors to the rural economy.

Influenced by revolutions in Eastern Europe and the dissolution of the Soviet Union, in 1990 a newspaper in Beijing published an article asking whether China was undergoing a capitalist economic reform or a socialist economic reform? The article caused a heated debate. In 1992, Deng Xiaoping gave a speech on his tour of several southern cities. This speech and the policy that followed, “Decision on the Development of the Socialist Market Economy” (1993), brought an end to the “capitalism or socialism” debate (Gong 2005). Deng Xiaoping affirmed the reform and the policy strongly encouraged the development of — and relaxed the social and political environment for — the private sector. From that point on, the private sector grew rapidly. From 1992 to 1997, the growth rates for individual businesses and private enterprises were 85.8% and 309.1% respectively (Yang and Zeng 2000: 79). As mentioned in Chapter 4, in order to promote the development of the private sector, the central government also relaxed the entry barriers for private enterprises, from stipulating the “positive list of market access” in the 1980s to introducing the “negative list of market access” in 2015. It also reformed the business registration system, which significantly simplified and streamlined the registration procedure for the incorporation of a new company.

Overall, since 1992, the central government has shown its support for the development of private enterprises by reducing restrictions to market access, simplifying registration and administrative procedures, providing favourable policies,

improving public services, and encouraging intermediary economic associations. The private sector now plays an increasingly significant role and has become a major contributor to the economic development of China.

Decentralization to subnational governments: Fiscal decentralization at central and local level

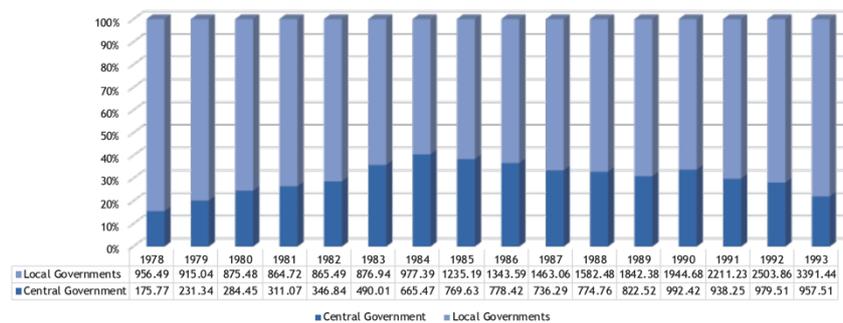
Since 1979, along with the SOE reform and privatization, the central government has initiated two waves of fiscal decentralization in an effort to resolve information and coordination problems and to find an appropriate division of financial power between the central government and local governments. The adjustment of fiscal arrangements exerts a strong influence on governments' behaviour and also determines the relationship between the central government and subnational authorities.

(1) The fiscal contracting system (1980-1993)

In 1980, the central government introduced the revenues-sharing system, also known as the fiscal contracting system (*hua fen shou zhi, fen ji bao gan*), which marked the beginning of a new kind of fiscal scheme (Chen and Guo 2016: 100). This fiscal scheme, referred to as “eating from separate stoves”, emphasized the responsibility of subnational levels of government for their budget balance (Qian and Xu 1993: 146, Qian, 1999, Chen and Guo 2016: 100). The central government specified the scope of local governments' revenue and expenditures and ratified local budgets and the percentage of shared local revenue (Chen and Guo 2016: 100). Under the revenues-sharing fiscal system, revenues were divided into central fixed revenues,² local fixed revenues³ and other local revenues. The central government-owned and operated enterprises were required to turn 80% of their revenue over to the central government and 20% to local governments (Lin and Liu 2000: 4). Central and local expenditures were also clearly defined, and the share scheme and five-year quota of subsidies were fixed (Chen and Guo 2016: 101). As well as Beijing, Tianjin, and Shanghai, between 1980 and 1984, four new fiscal sharing schemes were introduced. Fifteen provinces, including Zhejiang, were required to remit a specific portion of revenues to the central government, while three undeveloped provinces, including Yunnan, received a fixed amount of subsidies with 10% annual increment (Qian and Xu 1993: 146, Lin and Liu 2000: 6, Mu et al. 2014: 37). In 1982, the central government devolved a number of other powers to local governments: decision-making and administrative approval power, and supervision authority over local investment, foreign exchange, education, medical and health care⁴ (Mu et al. 2014).

With all these changes, total revenues increased from 113 billion yuan (4.5 billion euro) in 1978 to 435 billion yuan (55.8 billion euro) in 1993 (National Bureau of Statistics 2017), but the implementation of the fiscal contracting system resulted in a significant imbalance of financial power between the central and local governments, as illustrated in Figure 6.1.

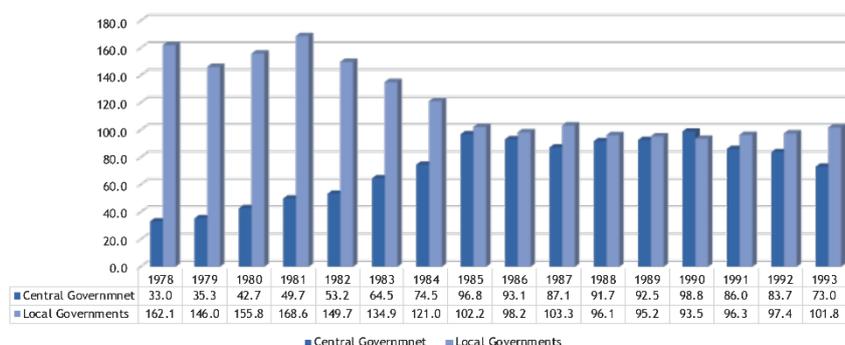
Figure 6.1
General public budget revenue (1978-1993)



Source: National Bureau of Statistics (various years)

From 1978 to 1993, central revenues were far less than local revenues. From 1978 to 1984, central revenues showed a slight upward trend, peaking in 1984, when they accounted for 40.5% of total revenues. However, from 1985, when the new fiscal sharing schemes were applied, the percentage of central revenue to total revenues declined. In 1993 the central government only took 22% of total revenues, while the central expenditures accounted for 28.3% of total expenditures (National Bureau of Statistics 2017).

Figure 6.2
Financial self-sufficiency rates from 1978 to 1993 (%)



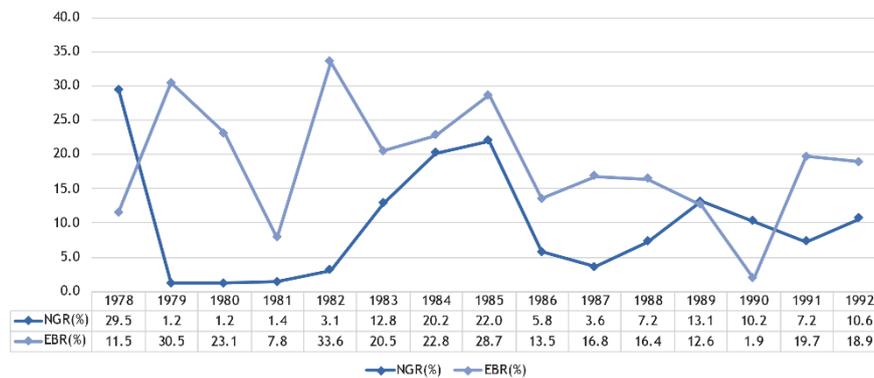
Source: National Bureau of Statistics (various years)

Figure 6.2 shows self-sufficiency rates⁵ for central and local governments from 1978 to 1993. While local financial self-sufficiency maintained a high level of close to or above 100% in that period, central financial self-sufficiency rates were far lower. The rate of the central government gradually increased and peaked at 98.8% in 1990, followed by a decrease to 73% in 1993 (National Bureau of Statistics 2017). These numbers imply that local governments were self-sufficient, while central budget revenues were unable to cover central government expenditures.

In this context, the central government devolved more expenditure responsibility to subnational authorities. Local governments demanded commensurate financial powers by increasing local non-tax revenues. As local governments collected all the taxes without the involvement of the tax bureau, and as the fiscal contracting system was not rule-based, local governments, especially those with high remittance ratios, often tended to reduce or give exemptions on enterprises' taxes, which were supposed to be remitted to the central government (Jin et al. 1999: 28).

Extra-budgetary revenue is an important source of local revenue, and therefore is worthy of attention here. The extra-budgetary revenue consisted of tax surcharges, SOEs' retention of profits, and special funds, local administrative fees, etc. which did not fall under the national public budget management system. In other words, local governments were allowed to have extra-budgetary funds at their disposal for local expenditures. The extra-budgetary funds had emerged in the 1950s and became officially standardized in 1983 when the central government issued an interim measure for the management of extra-budgetary revenue (Jin et al. 1999: 15, Loo and Chow 2006: 227).

Figure 6.3
The percentage of the national government revenue (NGR) and extra-budgetary revenue (EBR) to GDP



Source: National Bureau of Statistics (various years)

After the implementation of the fiscal contracting system in 1980, extra-budgetary funds expanded considerably. In 1978, the total extra-budgetary revenue accounted for 10% of GDP, while the overall budget revenue was 31% of GDP. In 1992, the percentage of the total extra-budgetary revenue to GDP increased to 14.2%, while the share of budget revenue to GDP decreased to 12.8% (National Bureau of Statistics 2012). Looking at the period 1978–1992, Figure 6.3 shows that extra-budgetary revenue surpassed national government revenue in most years.

Figure 6.3 indicates that extra-budgetary revenue peaked at 33.6% in 1982 (National Bureau of Statistics 2012). When extra-budgetary funds were officially standardized in 1983, the number declined to 20.5%, and after a significant rise in the following two years, showed a downward trend again in 1986, when the central government issued a document on tightening the management of extra-budgetary revenue. Although the number showed a downward trend, the extra-budgetary revenues were much larger than the national budget revenue (National Bureau of Statistics 2012). It is worth noting that, from 1982 to 1992, the percentages of local extra-budgetary revenue to total extra-budgetary revenue remained at around 60%, which means that with the extension of local autonomy since 1980, local governments sought more extra-budgetary funds to maximize their local financial power. Hence extra-budgetary funds became one of the main sources of local revenue.

As shown above, since the adoption of the fiscal contracting system in 1980, with increases in local governments' discretionary and financial powers, local budget revenue and extra-budgetary funds largely surpassed central revenues. On the one

hand, the fiscal contracting system provided local governments with strong incentives to promote local economic development. On the other hand, the decline of the central government's financial power brought an imbalance between central and local budget revenues, which led the central government to initiate the second wave of fiscal decentralization in 1994.

(2) The tax-sharing system (1994-present)

To resolve the problem of unbalanced central and local budget revenue and to provide adequate sharing schemes to both level of governments, in 1994, the central government introduced the tax-sharing system, which fundamentally altered the revenue-sharing system between central and subnational governments (Wong 2000: 7).

Under the tax-sharing system, taxes were divided into:

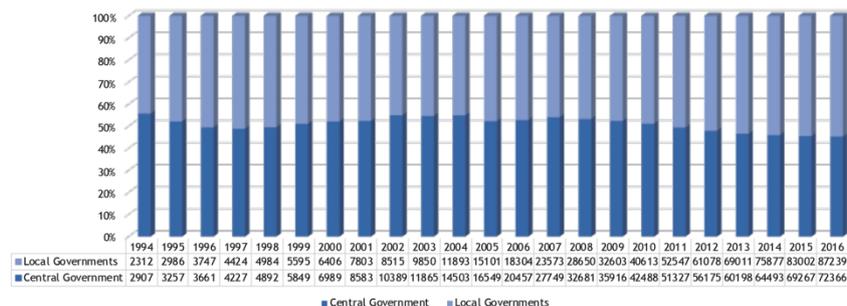
- a. Central fixed income, including: customs duties, consumption tax, value-added tax (VAT) revenues collected by customs, income taxes from central enterprises, banks and nonbank financial intermediaries; the remitted profits, income taxes, business taxes and urban construction and maintenance taxes of the railroad, bank headquarters and insurance companies; and resource taxes on offshore oil extraction;
- b. Local fixed income, including business taxes, excluding those listed above in central fixed incomes, income taxes and profit remittances of local enterprises, urban land use taxes, personal income taxes, the fixed asset investment orientation tax, urban construction and maintenance tax, real estate taxes, vehicle utilization tax, the stamp tax, animal slaughter tax, agricultural taxes, title tax, capital gains tax on land, state land sales revenues, resource taxes derived from land-based resources, and the securities trading tax;
- c. Central–local shared income, including VAT with a fixed rate of 75% for the central government and 25% for local governments,⁶ securities transaction tax with 50% for the central government and 50% for local governments, and resources tax which are levied with varying categories (Wong 2000: 7).

Before 1994, the revenue-sharing schemes varied between provinces or regions, leading to the criticism that the sharing schemes were not rule-based (Jin et al. 1999: 42). The tax-sharing system established a fixed tax rule between central and local governments (ibid.). More importantly, a national tax bureau and local tax bureaux were established for collecting central government revenues and local taxes,

respectively, which prevented local governments from underreporting or reducing national taxes, as discussed above (Jin et al. 1999, Wong 2000: 8).

With the aim of resolving the unbalanced revenue distribution, the tax-sharing system recentralized financial power from local governments. In 2002, an adjustment of fiscal arrangements was applied with a “fiscal centralization effort”. Firm income tax and individual income tax, which used to be considered local fixed income, were categorized as central–local shared income with a fixed rate of 60% for the central government (Chen and Guo 2016: 108–109). In 2012, to reduce enterprises’ financial burden of multiple taxing, the central government replaced the business tax with VAT (*Ying Gai Zeng*), which substantially cut the tax paid by enterprises. This reform could also be seen as a fiscal centralization effort.

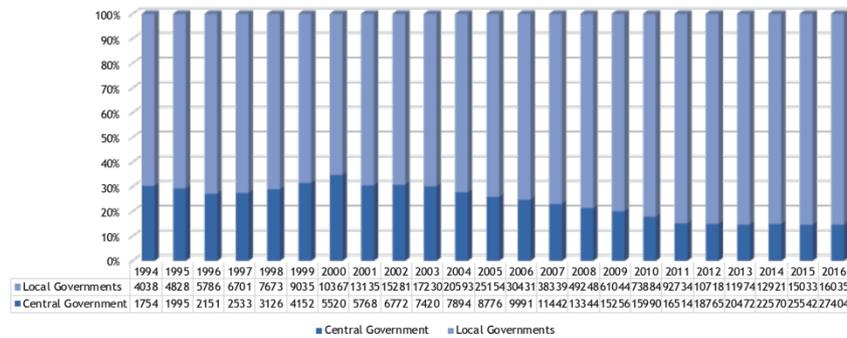
Figure 6.4
General public budget revenue (1994-2016)



Source: National Bureau of Statistics (various years)

When the tax-sharing system was adopted in 1994, the percentage of central budget revenue to total budget revenue significantly increased, rising from 22% in 1993 (see Figure 6.2) to 55.7% in 1994 (Figure 6.4). For the period 1994 to 2016, the ratio of central budget revenue to local budget stood at around 50: 50 (National Bureau of Statistics 2017).

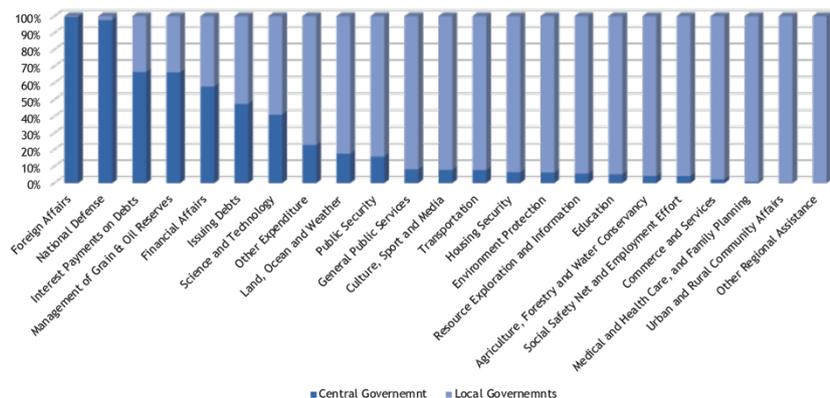
Figure 6.5
General public budget expenditure (1994-2016)



Source: National Bureau of Statistics (various years)

The system also specified the distribution of financial powers and expenditure responsibilities between central and local governments. As shown in Figure 6.4, the percentage of local revenue to total budget revenue has remained stable at around 50% since 1994, but Figure 6.5 shows clearly that the percentage of local expenditures to total expenditures has continuously increased. In 1994, the percentage of local revenue to total revenue was 44.3%, but the percentage of local expenditures to total expenditures increased steadily to reach 69.7%. When the new sharing schemes were introduced in 2002, the percentage of local revenue to total revenue basically remained at the same level, but the percentage of local expenditures increased from 69.3% in 2002 to 85.4% in 2016 (National Bureau of Statistics 2017).

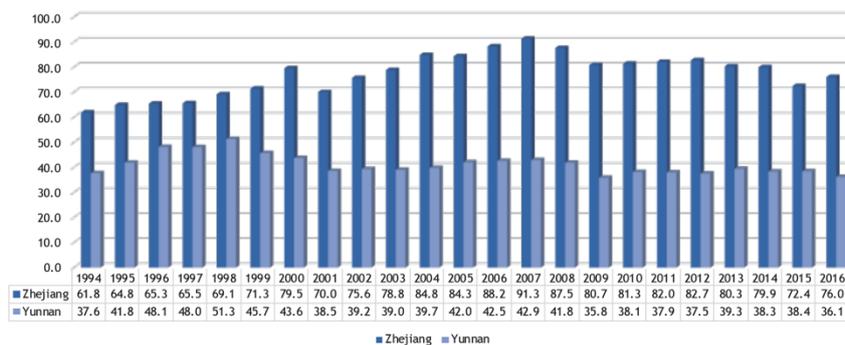
Figure 6.6
General public budget expenditure of the central and local governments



Source: National Bureau of Statistics (2017)

Figure 6.6 looks at the general public budget expenditure in 2016; it shows that total expenditures from the central government reached 2.74 trillion yuan (0.35 trillion euro), while the total expenditure of local governments was about 16 trillion yuan (2.04 trillion euro). More specifically, almost all of the expenditures on foreign affairs and national defence came from central government, along with about 66% of expenditures on interest payment on debts and management of grain and oil reserves, as well as 58% of expenditure on financial affairs. However, more than 90% of expenditures on general public services, education, medical and health care, transportation, housing security, environmental protection, etc., as well as over 80% of spending on public security, were provided by local governments (National Bureau of Statistics 2017).

Figure 6.7
Financial self-sufficiency rates from 1994 to 2016(%)



Source: National Bureau of Statistics (various years)

We saw above (Figure 6.2) that local government financial self-sufficiency rates were high: in 1993 local self-sufficiency stood at 101.8%, while the central government self-sufficiency rate was 73%. However, when the tax-sharing system was adopted in 1994, the local financial self-sufficiency rate declined sharply to 57.2%, and the central self-sufficiency rate jumped to 165.7% (Figure 6.7). The central government's self-sufficiency rates continued to rise, reaching a peak of 310.8% in 2011. In the following years, despite a slight decrease, the rates remained stable at 260% and above. However, from 1994 onwards, the local self-sufficiency rates stayed constant at a relatively low level of around 55% (National Bureau of Statistics 2017).

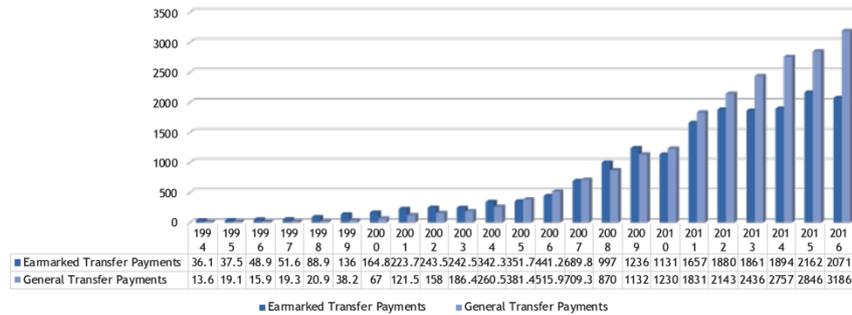
More importantly, regional self-sufficiency rates show a significant variation. Provinces and regions in East China, such as Shanghai, Jiangsu, Guangdong,

Zhejiang, etc. have the highest self-sufficiency rates, while the rates of regions in the Southwest area including Sichuan, Guizhou, and Yunnan had much lower rates, putting them at the bottom of all provinces and regions. Shanghai was ranked first with a self-sufficiency rate of 92.6%, following by Jiangsu (81.4%), Beijing (79.3%), and Guangdong (77.3%). Zhejiang was ranked fifth with 76%, while the self-sufficiency rate of Yunnan was 36.1% ranking it 23rd. Notably, only 9 out of 31 provinces or regions' self-sufficiency rates were higher than the average local self-sufficiency rate (55%) (National Bureau of Statistics 2017).

Thus, since the implementation of the tax-sharing system, the central government's self-sufficiency rates have shown rapid improvement. However, the majority of local governments have experienced severe budget deficits, especially those in less developed regions like Yunnan, further extending regional disparities. The majority of local governments have been in budget deficit for the past 20 years. Clearly, with the implementation of the tax-sharing system in 1994, the percentage of local budget revenue to total budget revenue was significantly reduced, while at the same time local governments had to take on more expenditure responsibilities. The local expenditure responsibilities have been increasingly incommensurate with local financial power.

In this context, in order to resolve the problem of local budget deficits while maintaining local governments' profits and providing incentives, central government adopted a tax rebate scheme ($\text{Tax Rebate}_{t(\text{year})} = \text{Tax Rebate}_{(t-1)} * [1 + 0.3 * (0.75 * \text{VAT}_{\text{increase}} + \text{Consumption Tax}_{\text{increase}})_t]$) and transfer payment system, which consists of general transfer payments and earmarked transfer payments for specific purposes (Qian 1999, Jin et al. 1999, Wong 2000: 8). The general transfer payments are used for adjusting and filling the local fiscal gap caused by the implementation of policies which increase local governments' expenditures and also with the aim of narrowing the regional growth gap.

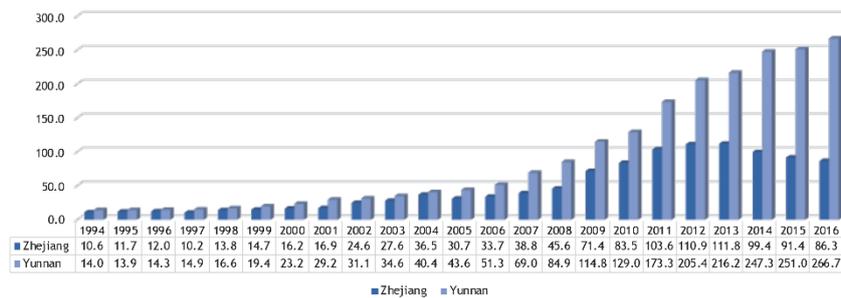
Figure 6.8
Transfer payments from central government to local governments (billion)



Source: National Bureau of Statistics (various years)

As the graph in Figure 6.8 shows, the transfer payments increased substantially from 1994 to 2016, especially general transfer payments. In 1994, earmarked transfer payments and general transfer payments amounted to 36.1 billion yuan (4.6 billion euro) and 13.6 billion yuan (1.8 billion euro), respectively. When the new tax-sharing policy was implemented in 2002, central governments increased earmarked transfer payments to 243.5 billion yuan (31 billion euro) and general transfer payments to 158 billion yuan (20.1 billion euro). Since then, as more fiscal responsibilities were assumed by local authorities, there has been a sharp rise in the total amount of transfer payments from central to local governments, especially general transfer payments. In 2016, earmarked and general transfer payments reached 2,071 billion yuan (264 billion euro) and 3,186 billion yuan (406 billion euro), respectively.

Figure 6.9
Tax rebates and transfer payments in Zhejiang and Yunnan (billion)



Source: National Bureau of Statistics (2017)

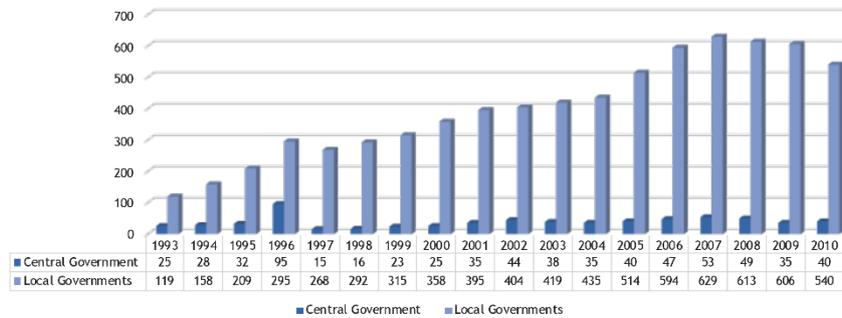
According to data from the National Bureau of Statistics (2017), the amount of tax rebates and transfer payments to provinces and regions in East China was considerably lower than to regions in Southwest and central areas. In 2016, Shanghai received the lowest tax rebates and transfer payments (47.7/ 6.2 billion yuan) among the 31 provinces or regions; Zhejiang received 87 billion yuan (11.3 billion euro) in transfer payments and tax rebates (ranked 26 out of 31); while Sichuan received the highest amount at 398.4 billion yuan (51.8 billion euro) and Yunnan had the fifth-highest amount at 266.7 billion yuan (34.7 billion euro) (National Bureau of Statistics 2017). It is clear that underdeveloped regions received much higher amounts of tax rebates and transfer payments (Figure 6.9), mainly to reduce inter-jurisdictional inequality.

As mentioned in the previous section, after extra-budgetary revenue was officially standardized in the early 1980s, extra-budgetary funds had risen sharply. As a key source of local revenue, the extra-budgetary revenue had surpassed the total budget revenue, leading the central government to tighten control over the increasing local extra-budgetary funds (Loo and Chow 2006: 227).

In 1993 central government reclassified several extra-budgetary items under the budget system, and in 1994 it stipulated that local governments should ask permission for the imposition of any newly added administrative fee from either provincial or central governments (Loo and Chow 2006: 227). Although this reclassification caused a significant decline in its rate of increase in 1993, in 1994, the percentage of extra-budgetary revenue to GDP climbed again to 30% while the percentage of budget revenue to GDP was 20%. In the following two years, the number of extra-budgetary revenue continued to climb and reached 61.8% in 1996, whereas the budget revenue showed a downward trend (National Bureau of Statistics 2017).

In 1997 the intra-budgetary government fund (fee) had been removed from the extra-budgetary revenues, which resulted in an enormously fall, and in 1998 the percentage of the extra-budgetary revenues to GDP was 9.1%. From 1998 to 2010, the number of extra-budgetary revenues fluctuated; after peaking at 18% in 2005, the number declined steadily to -9.7% in 2010, whilst the percentage of budget revenues to GDP fluctuated from 11.7% (2009) to 32.4% (2007) (National Bureau of Statistics 2017).

Figure 6.10
Central and local extra-budgetary revenues from 1993 to 2010 (billion)



Source: National Bureau of Statistics (various years)

Figure 6.10 shows the trajectory of extra-budgetary revenues from 1993 to 2010. Due to multiple reclassifications in the coverage of extra-budgetary revenues over this period the extra-budgetary revenues fell; however, the amount of local extra-budgetary revenues continued to increase, from 119 billion yuan (15.2 billion euro) in 1993 to 540 billion yuan (68.8 billion euro) in 2010, with a peak of 629 billion yuan (80.2 billion euro) in 2007. In the same period, central extra-budgetary revenues remained relatively constant at around 37 billion yuan (4.7 billion euro) (National Bureau of Statistics 2017).

From 1997 to 2010 the percentages of local extra-budgetary revenue to total extra-budgetary revenue had remained steady at 90% and above, meaning that central government had significantly tightened the management of local extra-budgetary revenues; nonetheless, local governments actively sought more extra-budgetary funds as important supplementary revenue for maximizing their financial power. In mid-2010, however, the central government decided to reorganize extra-budgetary revenues and to include all extra-budgetary funds in the national public budget management system (Ministry of Finance, Government of China 2010). Hence, from 2011, no extra funds could be used to expand local financial power. Since then, local governments, especially in underdeveloped regions, have relied heavily on transfer payments from the central government to cover local budget deficits and to narrow the regional growth gap, which can explain the sharp increase of general transfer payments from 2011.

Since the pre-reform period, the central government has made several attempts at decentralizing and recentralizing financial power, as it tried to establish what degree of centralization and decentralization could optimize the sharing schemes. The

fiscal reform of 1994 is considered a “fiscal centralization effort” for resolving the unbalanced central and local budget revenues which had been an issue since the 1980s. Although it is indisputable that the central government devolved greater power and responsibilities to the local authorities, the sharing scheme adopted in 1994 resulted in a considerable mismatch between local financial power and local expenditure responsibilities. In other words, after 1994, local governments gained control over a majority of administrative, managerial, and decision-making powers but, at the same time, they were assigned much greater expenditure responsibilities. Local governments suffered a severe budget deficit, so the central government introduced the tax rebate scheme, the transfer payment system, and the extra-budgetary revenues (repealed) to maintain the local governments’ profits and provide incentives, and reduce inter-jurisdictional inequalities. The change of fiscal arrangement directly impacts on central–local relations and on local governments’ behaviour. In the next section, the subnational fiscal system will be discussed.

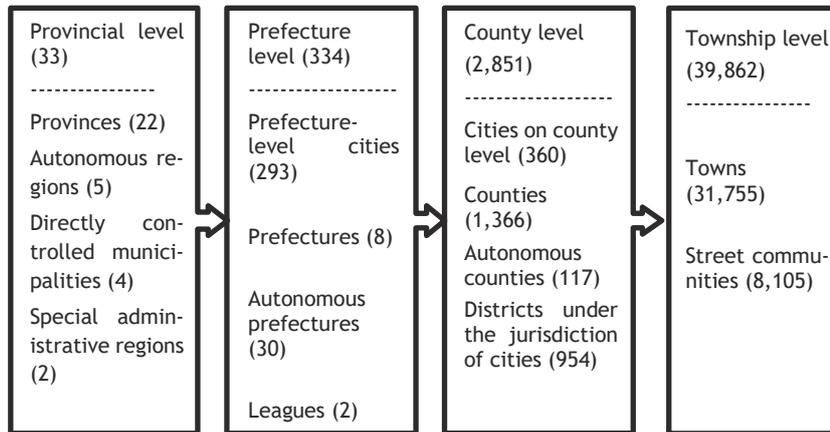
(3) The subnational governments’ fiscal system

Before introducing the subnational governments’ fiscal system, administrative divisions in China will be briefly discussed for a better understanding of the subnational government structure and the relations between the local levels of authority in China.

M-form hierarchical administrative system

The division of the country into counties and provinces long pre-dates the establishment of modern China, and the provincial boundaries have largely been in place since the Qing dynasty (1636–1912).⁷ However, the administrative divisions were frequently reorganized, in accordance with changes in national administrative planning, until the Constitution of 1979 was issued,⁸ which established a four-tier administrative system as shown in Figure 6.11: province–prefecture–county–township (National People’s Congress, Government of China 1979).

Figure 6.11
The administrative divisions in China (2016)



Source: National Bureau of Statistics (2017)

The central government administers 33 provincial-level divisions, including 22 provinces, five autonomous regions, four directly controlled municipalities, and two special administrative regions (National Bureau of Statistics 2017). Prefectural-level divisions are the second-level divisions,⁹ which consist of 293 prefecture-level cities, eight prefectures, 30 autonomous prefectures, and three leagues (National Bureau of Statistics 2017). County-level divisions are the third administrative layer, and township level is the lowest unit of rural administration (National Bureau of Statistics, Government of China n. d.). Although county-level divisions contain both urban centres and rural areas, the county economy in China is based on the rural economy (Zou 2015: 1).

Qian and Xu use the concept of the “multi-divisional form of organization” to describe China’s organizational structure: “[the] Chinese economy has been organized into a multi-layer-multi-regional form (the M-form organization)” (Qian and Xu 1993: 544), in which the organizational structure of a region is separated into several semi-autonomous subnational divisions (regional governments). In other words, the hierarchical structure and internal organization, such as divisions and departments, in each level of local government are set up to mirror those of the central government. The organizational structure of the central and local levels of government is identical. In the M-form organization, operating units are semi-autonomous and financially self-sufficient (Qian and Xu 1993: 544). Hence, each operating unit (local government) relies heavily on the economic performance of

enterprises within its jurisdiction rather than on superior levels of government (ibid.); this was especially true after the adoption of the tax-sharing system, as local governments were assigned much more responsibility. The lowest operating units of the M-form hierarchy (county or township level governments) are in a relatively weak bargaining position (ibid.).

In the early 1950s, the central government implemented the heavy industry-oriented development strategy. According to national planning, the industrial development strategy was city-based, while rural areas took responsibility for cities' food supply (Ma 2005). To ensure the food supply from rural areas to cities, a "city administering county system" (*shi guan xian*) was introduced in 1958 on a trial basis in the three directly controlled municipalities (Beijing, Shanghai, and Tianjin) and one province (Liaoning), and by the end of 1960, the "city administering county system" was applied in 52 cities (Ma 2005, Tang 2008). Under this administrative system, cities were authorized to administer their surrounding counties, which were previously governed by prefectural-level authorities (Ma 2005: 486–487). However, this national development strategy in the pre-reform period resulted in a severe "price scissors" phenomenon, with agricultural prices far below their actual value, which caused substantial damage to the development of rural regions. Therefore, once economic reform started, the central government introduced three major measures, namely "converting counties to cities" (*xian gai shi*), "expanding or merging cities", and "merging counties into cities", to establish relations between cities and counties and to stimulate the economy in rural regions (Ma 2005: 481).

In 2002, the "city administering county system" was applied nationally (Tang 2008).¹⁰ However, both central and local governments have kept seeking better ways of optimizing the administrative structure. In practice, as the superior authorities exercise fiscal administrative and managerial control over lower-level authorities, and there are no specified regulations on expenditure responsibilities at the local level, the lower levels of local government, especially county levels, have less financial power and more expenditure responsibilities, as well as an inferior fiscal bargaining position, compared with prefecture level (Yang, D. 2011: 56). Hence, in 2005, the central government introduced a "province directly administering county system" to improve the fiscal bargaining position of county-level divisions (Wang 2013).

The central government thus operates an M-form administrative system, in which operating units (local level of governments) are semi-autonomous and relatively financially self-sufficient (Qian and Xu 1993: 544). Therefore, the interdependence between regional governments is relatively weak (Boone et al. 1998: 195).

The M-form structure provides a high level of institutional flexibility in conducting “pioneering experiments” for economic reform in selected regions without depending on the cooperation of other subnational authorities; this means that, if they should fail, the “pioneering experiments” would not disturb the overall economy (Qian and Xu 1993: 546, Boone et al. 1998: 195). More importantly, as more administrative and financial powers were delegated to local governments, and in the context of substantial regional differences, the weak interdependence between regions gave local authorities space to interpret and carry out regulations and policies based on distinctive regional socio-economic structures and configurations.

The subnational governments’ fiscal system

Based on the Budget Law of China, the central government requires that at each subnational level — provincial, prefecture, county, and township — governments should establish their own financial management system and maintain a balanced budget (Ministry of Finance, Government of China 2014, Lam and Wingender 2015: 6). Although financial powers and expenditure responsibilities between central and local governments were clearly defined in the tax-sharing system in 1994, the central government did not specify the measures and distribution of revenue collection and expenditure responsibilities at each level of subnational governments, except for the provincial government. The 1995 Budget Law specifies that “local government at the county level and above shall determine the financial management system of local government at lower levels in accordance with the principle of the tax-sharing system between the central and local governments as well as the relevant provisions of the governments at higher levels” (Ministry of Finance, Government of China 1995). Hence, the revenue-sharing schemes and the division of financial power and expenditure responsibilities at the local levels of government take different forms in different provinces.

Fiscal revenues of subnational governments can be divided into fixed income and shared income. Two major types of local fiscal revenue-sharing schemes are usually applied between upper and lower subnational governments: tax-sharing and distribution based on totals or incremental revenues (Lyu and Sun 2008, Yang, D. 2011). Taxes, which are assigned entirely to provincial or lower levels of local governments as fixed income, vary across provinces. For instance, VAT, business tax, income tax from enterprises and personal income tax are usually designated as the main types of shared taxes between provincial and prefecture/ municipal/ county governments. Some local governments also assign supplementary types of taxes,

such as resource tax, urban land use tax, real estate tax, etc. with fixed sharing rates as subnational shared taxes (Xu 2014: 85). Moreover, various fiscal sharing schemes, such as allocation based on total revenues, incremental revenues, fixed base, etc., are also applied between prefecture-level and county-level governments (Lyu and Sun 2008). Unified revenue collection and budget apportionment fiscal systems, fiscal contracting, or sharing systems are usually introduced between county and township governments (Lyu and Sun 2008). In short, tax bases with high mobility between jurisdictions are put under the central government, while local governments usually collect tax bases with low mobility between jurisdictions.

Since 1994, tax-sharing and allocation based on incremental or total revenue system (*fen shui jia zeng liang fen chen yu zong er fen xiang*) were implemented in Zhejiang province. Zhejiang provincial revenues are composed of (a) 25% of VAT paid by enterprises in the energy sector; (b) 40% of income tax from other enterprises; (c) 60% of business tax from banks and nonbank financial and insurance institutions, income tax from telecoms and highways; and (d) provincial non-tax revenues.

Zhejiang municipal or prefecture and county revenues are composed of (a) 25% VAT, excluding the part shared with central and provincial governments; (b) 40% of income tax from enterprise; (c) 40% of personal income; (d) 40% of business tax from banks and nonbank financial and insurance institutions, urban land use taxes, urban construction and maintenance tax, real estate taxes, deed tax, etc. (General Office of Zhejiang Provincial Government 2015).

The apportionment based on total revenues (*zong er fen cheng*) is applied in Hangzhou; the distribution ratio between Hangzhou and Zhejiang provincial government is 84: 16 (ibid.). The other municipal and county governments are required to remit 20% of incremental revenues based on previous year's final account to the provincial government and are allowed to retain the remaining incremental revenues themselves (ibid.).

Tax-sharing and the prescribed remittance quota system (*fen shui jia ding er shang jie*) has been applied in Yunnan since 2001 (Yunnan Provincial Government 2001).

Yunnan provincial fixed incomes are composed of business tax from provincial and all tiers under provincial banks, nonbank financial and insurance institutions, income taxes from provincial SOEs and state-holding enterprises as well as provincial administration fees (ibid.).

Yunnan prefecture and municipal fixed incomes consist of 25% of VAT, business tax excluding the taxes levied by central and provincial governments, income taxes from prefecture and municipal SOEs and state-holding enterprises, urban land

use taxes, urban construction and maintenance tax, real estate taxes, vehicle utilization tax, the stamp tax, animal slaughter tax, agricultural taxes, deed tax, and VAT on land (Yunnan Provincial Government 2001, also Wong 2000: 7). In addition, three prefecture cities are required to remit a prescribed quota of revenues to the provincial government: Kunming (30%), Yuxi (30%), and Qujing (15%) (*ibid.*).

The tax rebate scheme and the transfer payment system applied by the central government are also adopted by subnational governments. The tax rebate scheme between central and provincial governments has been imitated by the majority of subnational governments, while various transfer payment systems have been applied between provincial and lower level of local governments (Wang, Y. 2008). As mentioned in the previous section, local governments have been suffering a severe budget deficit since the adoption of the tax-sharing system in 1994. To maximize their financial power, local governments were eager to seek extra-budgetary revenues. However, after the repeal of the extra-budgetary revenues in 2010, local governments, especially in underdeveloped regions, are excessively dependent on transfer payments from central government or superior local governments.

In his context, in order to reduce the dependence on transfer payments, most provincial governments introduced an incentive coefficient in their allocation of general transfer payments between higher and lower levels of local government (Yang, D. 2011: 56):

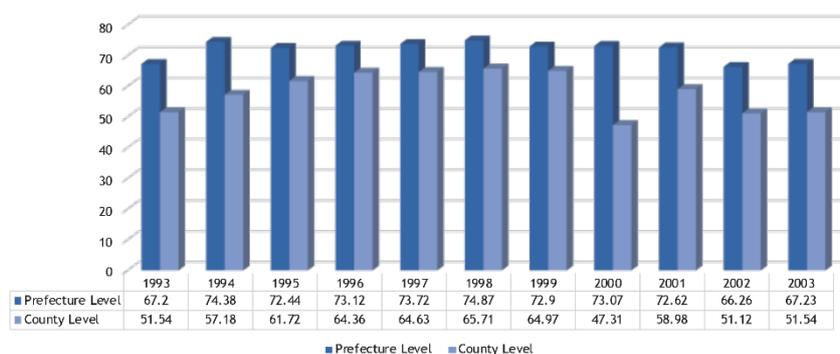
incentive coefficient $t_{(year)} = (\text{local budget revenues growth rate}_{(t-1)} - \text{provincial average budget revenues growth rate}_{(t-1)}) * \text{a certain proportion determined by local governments.}$

It is clear from this formula that the incentive coefficient is directly relevant to budget revenues (i.e. the higher the local budget revenue increases, the higher the value of the incentive coefficient). Hence, compared to the underdeveloped regions, developed areas are more likely to acquire transfer payments. The adoption of the incentive coefficient provides a strong motivation for local-level authorities to promote local economic development as a way of obtaining more transfer payments from superior authorities and expanding local financial power. However, in practice, as the superior authorities have fiscal administrative and managerial power over lower-level authorities, transfer payments or subsidies are frequently held back (Yang, D. 2011: 56).

Subnational authorities have thus specified the precise apportionment of revenues, taxes, and transfer payments between different levels of subnational

governments. However, the division of expenditure responsibilities between each level of local government is not clearly defined. Also, there are overlaps in expenditure responsibilities such as education, medical and health care, etc. between each level of local government. Without clear regulations, local governments tend to shift more expenditure responsibilities onto the lower level of government and seize financial power from that lower level, as well as holding back transfer payments or subsidies (Yang, D. 2011). Therefore, the lower levels of local government have less financial power and more expenditure responsibilities, especially after the implementation of the tax-sharing system in 1994, as demonstrated by looking at the prefecture and county financial self-sufficiency rates shown in Figure 6.12.

Figure 6.12
Prefecture and county financial self-sufficiency rates (%)



Source: National Bureau of Statistics (various years)

As the Figure shows, in 1993 the prefecture governments' financial self-sufficiency rate was 67.2%, while the county governments' self-sufficiency rate was 51.5%. When the tax-sharing system was implemented nationally, the rate at prefecture level increased and levelled off at around 70%. After a slight increase in the self-sufficiency rate at county level, the rate declined from 65% to 47.3% in 2000. Overall, from 1993 the county self-sufficiency rates stayed constant at a low level, and about 40% to 50% of expenditures depended on transfer payments or other extra-budgetary revenues; the prefecture self-sufficiency rate is significantly higher than the rate at county level (National Bureau of Statistics 2007).

The prefecture and county governments are assigned the majority of expenditure responsibilities on public facilities, infrastructure construction and other public services. However, the financial powers of these two levels of government are not commensurate with their expenditure responsibilities, which means that prefecture and county fiscal revenues are not adequate for their expenditures (Li, X. 2017).

Notably, as the main source of county and township government revenues, according to the Ministry of Agriculture, the average total of agricultural taxes and other related fees was between 160 billion yuan (20.2 billion euro) and 180 billion yuan (22.7 billion euro) each year before the implementation of rural tax reform (Ni et al. 2007). Aiming to lighten the tax burden on peasants, central government launched a pilot rural tax reform scheme to abolish agricultural taxes in Anhui province in 2000, and in 2003 the rural tax reform was applied nationally (Cui, Y. 2011). By the end of 2005, agricultural taxes in 28 provinces and 210 counties in Hebei, Shandong, and Yunnan had been revoked (*ibid.*). On 30 December 2005, the Standing Committee of the National People's Congress (2005) issued "The Decision on Abolishing the Regulation on Agriculture Tax", which officially repealed agricultural taxes in the whole nation from 1 January 2006. However, since agricultural taxes were repealed, county and township budget revenues have been drastically reduced. Although central government increased the transfer payments for county and township governments right away, the amount of transfer payments — 66.2 billion yuan (8.3 billion euro) in 2005 and 78.2 billion yuan (9.9 billion euro) in 2006 — compensated for less than half of the losses to budget revenues in county and township levels of government (Ni et al. 2007, Yang, D. 2011). Apparently, it is impossible to remedy through transfer payments the fiscal shortfall caused by abolishing agricultural taxes.

The discussion above indicates that, due to the imbalances in local financial power and local expenditure responsibilities, local governments have suffered from increasing fiscal deficits. As the higher levels of local government have discretionary power over the fiscal arrangements of the lower levels of local government, more expenditure responsibilities have been assigned to lower-level authorities, while the higher-level authorities tend to seize financial power and retain transfer payments and subsidies. Compared with the higher-level local authorities, the lower levels of local government confront severe local budget shortfalls, especially since the repeal of agricultural taxes. In the semi-autonomous and relatively financially self-sufficient M-form administrative system, local governments actively promote local economic growth based on distinctive regional economic and industrial features to increase local financial power and acquire more transfer payments. Overall, fiscal decentralization has provided strong incentives and substantially shapes the behaviour of local governments in regional development, which forms the development trajectory of the local economy.

6.1.2 The Chinese cadre management and promotion system

As discussed in the previous section, decentralization reform and the M-form administrative system have provided strong incentives for local governments in regional development. However, as Zhou, L. (2007) argues, although decentralization is undeniably important in promoting local economic growth, it does not fully explain why local governments did not lose their enthusiasm for local development as the pendulum of centralization and decentralization of fiscal sharing schemes swung back and forth, and especially when the tax-sharing system caused a considerable imbalance between local financial power and expenditure responsibilities, damaging local interests. In other words, the incentives provided by decentralization are not enough to explain why local governments seem largely unaffected by these repeated changes of fiscal arrangements, but still keep on zealously promoting regional economic growth (*ibid.*). Therefore, this section asks the question: “besides the incentive provided by decentralization reform, is there any other fundamental incentive provided for local governments?”

The principal-agent relationship and incentive problems

To answer this question, the concept of the principal–agent relationship will be brought into this discussion to illuminate the central–local relationship, the possible incentive problems between central and local governments, and the treatment of incentive problems.

Jensen and Meckling (1976: 308) define the principal–agent relationship as a contract, in which an agent has decision-making authority and performs service on behalf of a principal. According to Laffont and Martimort (2001: 39), when a principal has a lack of time or ability to perform a task himself, and is willing to delegate that task to an agent who can access information that is not available to the principal, incentive problems occur. Therefore, the uncertainty and information gaps in a principal–agent relationship are the fundamental considerations in designing the contract (Jensen and Meckling 1976: 308, Laffont and Martimort 2001: 40). Many scholars (e.g. Lu 1997, Wang 2004, Zhou, L. 2004, Zhou et al. 2007) have drawn an analogy between the principal–agent relationship and the relationship between the central government and local governments in China. Compared with subnational authorities, the central government, as the decision-maker, has difficulties in accessing actual information. Therefore, the central government (the principal) delegates administrative and financial power, decision-making authority, and tasks to local governments (the agents).

However, as Jensen and Meckling (1976) point out, the agents may not always pursue the same goals as the principal, because both parties may seek to maximize their interests. Similarly, in the central–local relationship, the central government aims to promote national economic development, while local governments are more inclined to protect local interests, and local officials may pursue their personal ambitions.

If there is no asymmetry of information between the principal and agents, or when the principal and agents pursue different interests, the principal can easily observe the agents' behaviour and effort and simply reward the agent based on performance (Laffont and Martimort 2001: 156). However, when the agents are better informed, the agents' effort and performance will be difficult for the principal to evaluate or observe, which may trigger the problems of hidden information or hidden actions and deviation from task. Compared with the central government, local governments are well-informed. Hence, when local governments have a tendency to pursue local interests, moral hazard or adverse selection may occur. In practice, the asymmetric information problem inhibits the central government from directly observing and measuring local governments' efforts and performance.

The incentive problem often occurs in highly centralized and unified systems, characterized by fixing budget and output quotas and operating a standard reward system (Weitzman 1980: 302–303). After studying Soviet incentive schemes, Weitzman (1976: 252) points out that there are static and dynamic incentive problems in the Soviet reward system, which rewards quota overfulfilment or penalizes quota underfulfilment. More specifically, future targets are set partially based on current performance. Hence, agents tend to underreport their production capacity and output in order to lower the targets and make rewards easier to obtain, also known as the “ratchet effect” (ibid.: 252). When the contracting system was applied in the 1980s in China, local governments, especially those with high remittance ratios, often tended to underreport, reduce, or grant exemptions from enterprise taxes in order to maximize local financial power (Jin et al. 1999: 28).

As agents will respond to incentives, establishing applicable incentives for agents is a way to limit divergences from the principal's interest and bring the agent's aims and objectives into line with the original plan (Jensen and Meckling 1976: 308, Laffont and Martimort 2001: 40). Various scholars (e.g. Weitzman 1980, Freixas et al. 1985, Laffont and Tirole 1993), have studied the ratchet effect and the treatment of incentive problems. Lazear and Rosen (1981: 842) propose a “rank-order payment scheme”, in which salaries depend on the rank order of workers in a firm rather

than each worker's output level. They argue that when monitoring and measuring workers' effort and performance is difficult, workers can alter their input, hence it is much easier to measure and compensate workers based on their relative position in a firm (ibid.: 842, 863). Meyer and Vickers (1997: 575) believe that "comparative performance information can reduce the ratchet effect". They emphasize that "comparative performance information can be provided through competition, which improves efficiency in a principal-agent relationship" (ibid.: 547–548, 553). Therefore, comparative performance and the ordinal position-based rank-order incentive schemes are possible ways of reducing incentive problems.

Rank-order tournament scheme

The Chinese cadre management and promotion system has been based on comparative performance and the ordinal position-based rank-order incentive scheme since the 1980s, which provides strong incentives to local government officials to promote regional economic development and to compete for promotion. Hence, Zhou (2004) claims that the Chinese cadre management and promotion system could be seen as a "rank-order tournament scheme", which provides a reasonable theoretical explanation for the behaviour of local governments and officials.

Inherited from the Soviet model, the Chinese cadre management nomenklatura system was established in the early 1950s and is still in use today (Manion 1985: 204, 212, Edin 2003: 6). The system consists of lists of leading positions of party units with the power to make personnel changes, and lists of reserves or candidates for these positions (Burns 1989: ix). According to the Law of Public Servants (National People's Congress 2017), there are five levels of administrative hierarchy: the central level (*guo jia ji*), the provincial and ministerial level (*sheng bu ji*), the prefectural department and bureau level (*ting ju ji*), the county and division level (*xian chu ji*), and the township and section level (*xiang ke ji*). In each level of administrative hierarchy, leading cadres, chiefs, and deputies are assigned "performance targets" (Edin 2003: 10), which can be monitored and measured by a higher administrative level. When effort and performance cannot be directly observed, GRP, as the comparative performance information, is the most important index of local economic performance. At each level, the central and local party committees, with the cooperation of personnel departments, can evaluate and compare performance, authorize cadre appointment, promotion transfers, removals, or dismissals of the leading cadres at a lower level (Manion 1985: 205, Edin 2003: 17).

From the 1950s until 1983, party committees had authority over senior personnel decisions two levels down the administrative hierarchy, which meant that the

central party committee controlled personnel decisions of leading cadres at the provincial and prefectural levels (Burns 1987: 37). However, in this two-level-down nomenklatura system, the scope of management and the number of leading cadres directly managed by the central party committee was too large (Manion 1985: 217–218). Therefore, in 1984, the central government implemented the nomenklatura reform to decentralize personnel management (Burns 1987: 38). The number of leading cadres directly controlled by the central committee was reduced from 13,000 to 7,000, and the party committee at each level could only supervise one level down in the administrative hierarchy (*ibid.*). Since 1984, the central party committee has only authorized the appointment, promotion transfers, removals, or dismissals of chiefs and deputies at provincial and ministerial level, and local party committees have full control over the local management of leading cadres. As Burns (*ibid.*: 40) argues, the decentralization of the nomenklatura system gave local authorities greater autonomy in personnel decisions, which provided incentives for local governments to improve efficiency in cadre management.

In summary, along with the implementation of decentralization reforms which give subnational governments administrative and financial power, they also have autonomy in personnel decisions and cadre management. The semi-autonomous and relatively financially self-sufficient M-form administrative system gives local authorities space to promote local economic development and adjust the developmental path according to regional features. Hence, decentralization can be seen as a process of top-down reform, in which local governments are relatively self-contained and have greater autonomy in regional development. At the same time, the nomenklatura system is a bottom-up cadre promotion system, in which the authority over personnel decision-making is centralized at a higher administrative hierarchy level. As Zhou, L. (2004) argue, the nomenklatura system can be seen as an “internal labour market”, meaning that the promotion of leading cadres is conducted internally within the system. Once new entrants are appointed in the nomenklatura system, they will not easily opt-out of the system, because of certain features:

- a. the hierarchical wage structure, in which the wage rates increase from lower position to higher position within the system;
- b. in both the internal nomenklatura system and the external labour market, dismissal, removal, or “hop over” are usually considered to be bad signals for future employment.

Hence, the nomenklatura system generates strong “lock-in effects”. As the measurable criterion of local economic performances, GRP is highly related to leading cadres’ promotion, so that leading cadres are closely involved in local development for promotion. At the same time, the rank-order tournament results in competition for promotion between leading cadres at the same level of the administrative hierarchy, which intensifies inter-jurisdictional competition for resources in promoting local economic development. Compared with less-developed regions, people from provinces with better economic performance have occupied the majority of positions in the Central Committee of the CPC: 13 out of 204 members of the Central Committee are from Zhejiang, while there is only one member from Yunnan (Song 2017). Thus, it is clear that provinces with lower growth have fewer promotion prospects than provinces with high performance.

The top-down reform delegates greater autonomy and space to local governments in regional development, while the bottom-up promotion system provides strong incentives for leading cadres to devote themselves to local economic development. As Blanchard and Shleifer (2001: 179) suggest, “the economic benefits of decentralization in China depend on some form of political centralization”. The rank-order tournament thus explains why local governments are virtually unaffected by the pendulum of the fiscal arrangement, enthusiastically promoting regional economic growth, even when the fiscal arrangement could damage local interests. The strong incentives for local governments and cadres derive from the highly competitive environment, which created the decentralization reform and centralized cadre management and promotion system. Hence, to understand how and why a specific development trajectory has been shaped in a region, it is essential to identify first what economic and institutional arrangements determine or have the most significant influence on economic actors’ behaviour. Overall, the tax-sharing system, M-form administrative system, and the rank-order tournament scheme play a crucial role in shaping the distinctive regional path of development.

6.2 Inter-jurisdictional competition

Section 6.1 presented an overview of economic reforms in China and asked what particular institutional and economic arrangement or environment created by the central government is the main driving force in shaping local governments and firms’ behaviour. The tax-sharing system adopted in 1994 resulted in the redistribution of financial power and expenditure responsibilities between central and provincial governments. While the central government has delegated the majority of

administrative, managerial, and decision-making powers to provincial governments, more expenditure responsibilities have been shifted to local authorities, to an extent that is incommensurate with local financial power and has caused severe budget deficits. Meanwhile, the strong incentives deriving from the rank-order tournament for the promotion of leading cadres underlie the enthusiasm of local authorities for promoting local economic growth so as to raise local revenue, which significantly intensifies competition between local governments. This section will therefore discuss how subnational governments, with discretionary power, compete in this highly competitive environment, and how inter-jurisdictional competition influences evolving local development trajectories.

Boyne (1996: 708) argues that competition between local authorities has two forms:

- a. competition between different areas for mobile resources like households and businesses (horizontal intergovernmental competition);
- b. competition between different tiers of local governments for local revenues (vertical intergovernmental competition).

Both horizontal and vertical competition are observed between subnational governments in China.

6.2.1 Horizontal competition

Tiebout's work (1956: 419–420) on horizontal intergovernmental competition states that individuals are fully mobile and choose a jurisdiction based on the taxes and public services provided by local government, while jurisdictions compete for residents who can produce a pareto-optimal outcome (Revesz 1992: 1236–1237). Wilson (1999: 271) says that Tiebout's work incorporates both public choice theory and tax competition theory. In 1975, Fischel and White extended Tiebout's Hypothesis to include mobile firms, assuming that firms are fully mobile and choose the region they prefer and which supplies them with public inputs; subsequent work has introduced labour and capital into the Tiebout Hypothesis (Wilson 1999: 272). Local governments compete for resources to increase local revenues, which mainly depend on taxpayers, including labour and firms located within their jurisdiction (Eberts and Gronberg 1988). The main method for local authorities to attract resources is to lower taxes. As Eberts and Gronberg (*ibid.*: 3) argue, if local governments attempt to increase tax or reduce the provision of public services, there is a possibility that taxpayers will choose neighbouring jurisdictions which better meet

their preferences. However, Oates (1972: 143, 1988: 336) argues that jurisdictions' competition to attract business investment by lowering taxes will lead to less efficient levels of provision of local public services.

Throughout this discussion, one of the underlying assumptions of tax competition is that actors are fully mobile. In China, although each individual is allowed to choose where to reside and to work, the household registration system (1950), also known as the "Hukou system", which identifies individuals according to information including registered residential jurisdiction, name, age, family members, etc., largely restricts the mobility of residents. The Hukou system is closely connected with the provision of basic welfare such as education, public health services, pensions, and other public services for residents registered within the jurisdiction, which is a significant obstacle to moving from one jurisdiction to another. Notably, the Hukou system divides residents into "agricultural" and "non-agricultural" populations (Wu and Treiman 2002). In 2016, there were 169.34 million rural–urban migrants out of a total of 245 million migrant workers in 2016 (National Bureau of Statistics 2017). Although there are large numbers of migrant workers who are fully mobile and able to choose where to work, it is difficult for rural–urban migrant workers to settle in cities and gain access to basic welfare provided by urban governments. Registering as non-agricultural and settling in a city requires home ownership or a certain length of time working in that city. Hence, the Hukou system significantly restricts the mobility of individuals.

Compared with the limited mobility of individuals, firms are selective and mobile in intergovernmental competition. As 70% of local budget revenues consists of income tax from local enterprises and VAT (Ren et al. 2015), local governments compete for mobile capital to increase local revenues. Also, the central government delegates some discretion in deciding tax deductions and granting tax exemptions: local governments will often make use of this power by promising tax deductions or exemptions when signing agreements with enterprises, as a way of attracting capital investment (Ye 2017). Compared with internal capital, FDI is much more mobile and has a higher level of policy flexibility (Fu and Zhang 2007). The inflow of FDI provides job opportunities, brings in technology, and expands the market, exerting a positive influence on local economic growth. According to Li and Shen (2008), when the rate of FDI increases by 1%, the GDP growth rate will increase by 0.04%. To encourage local governments in their efforts to attract FDI, provincial and prefecture-level governments have the discretion to waive or reduce local income tax for any enterprises with foreign investment (State Council, Government

of China, 1991). Hence, tax is one of the main weapons in intergovernmental competition.

Using data from 1995 to 2010, Zhu and Du (2013) found that the local marginal tax burden ratio to incremental GRP showed a significant downward trend, which provides evidence of tax competition since the tax-sharing reform. Pang (2007) have tested for and shown a significantly positive relationship between FDI and the level of intergovernmental competition. Fu and Shen (2012) provide convincing evidence in support of horizontal tax competition between local governments through lowering the effective tax rate. They also found that besides tax competition, local governments in the eastern coastal area are inclined to compete through the provision of public services or improved infrastructure, while local governments in western regions are still apt to compete by lowering the tax rate to attract investments (*ibid.*). Li and Shen (2008) support this conclusion, arguing that tax competition was the main method of intergovernmental competition during the 1990s. However, fierce intergovernmental competition spurs a race to the bottom among local governments, which aggravates local fiscal difficulties (*ibid.*). Hence, local governments started to change competition strategies, and diverse forms of competition began to emerge. Regional differences in horizontal competition are found between the eastern and western regions. Li and Shen (2008) confirm the suggestion that local governments in the well-developed eastern area compete with tax rates but also through public inputs, which can improve the productivity of capital for attracting investments, while tax competition is still the dominant form of intergovernmental competition in less-developed western areas.

Oates' argument (1972: 143, 1988: 336) that tax competition might lead to an inefficient provision of local public services, has been proved in inter-jurisdictional competition in China. The budgetary expenditures can basically be divided into three categories: productive expenditures (e.g. infrastructure construction, agricultural productive expenditures and other production-related expenditures), non-productive expenditures (e.g. education, medical and health care, public services, etc.) and other administrative fixed expenditures. Fu and Zhang (2007) use the actual tax rate of foreign-funded enterprises to measure local competition. When the intensity of local competition increases by one unit, the proportion of infrastructure investment in whole budgetary expenditures will increase by 0.95%, while the ratio of non-productive expenditures to total local expenditures will decrease by 0.62% (*ibid.*). Notably, Fu and Zhang (*ibid.*) argue that compared to the well-developed eastern region, provinces in the western region are at a disadvantage in inter-

jurisdictional competition. Hence, once they receive extra funds, subsidies, or national investments, they are inclined to increase investment in productive expenditures such as infrastructure rather than non-productive expenditures. Although local governments in western regions also increase inputs into education, medical and health care, and other public services, the proportion of non-productive inputs to total expenditures is considerably lower than the productive expenditures.

The discussion above suggests that, as the implementation of the tax-sharing system and rank-order tournament scheme have substantially intensified regional competition for mobile capital so as to raise local revenue, tax competition is the main type of horizontal intergovernmental competition. However, fierce tax competition spurs a race to the bottom among local governments, which exacerbates local fiscal deficits. Local governments, especially in the developed eastern regions, started to switch competition strategies, turning to the provision of public services and improved infrastructure. It is clear that inter-jurisdictional competition does exert a significantly positive influence on local economic growth, but at the same time it also results in inefficient provision of local public services, especially in non-productive expenditures.

6.2.2 Vertical competition

As mentioned in the previous section, a semi-autonomous and relatively financially self-sufficient M-form, four-tier administrative system (province–prefecture–county–township) was constructed in China. In this administrative system, prefecture-level cities have discretionary power over the fiscal arrangement of their surrounding counties, known as the “city administering county system” (*shi guan xian*). Due to the severe imbalance in local financial power and local expenditure responsibilities after the implementation of the tax-sharing system, more expenditure responsibilities have been assigned to lower-level authorities, especially the county level of governments while, in order to reduce local fiscal deficits, the higher-level authorities tend to take financial control and hold back transfer payments and subsidies. Compared with the prefecture-level of governments, the county governments face severe local budget shortfalls, especially since the repeal of agricultural taxes. It seems that, under the “city administering county system”, the prefecture-level governments take advantage of their administrative power to squeeze county governments’ financial resources, which compounds the county governments’ financial difficulties. Therefore, the “city administering county system” might bring inefficiency in county economic development.

Due to the fiscal deficit, more than two-thirds of local budget revenues have to be used for covering “fixed expenditures” such as personnel and other administrative costs, often referred to by the Chinese expression: *chi fan cai zheng* (“budget revenues only for eating”) (Herrmann and Feng 2004: 406). Hence, productive and non-productive expenditures only account for a minor part of total county expenditure (Yin and Zhu 2011). The abolition of agricultural taxes caused a drastic reduction in county budget revenues so that county-level governments now depend heavily on transfer payments. Yin and Zhu (2011) used data from 2001 to 2005 covering 2,067 counties to study the county governments’ expenditure preferences. They found that the influence coefficient of transfer payments to productive expenditures and non-productive expenditures was 0.58 and 0.05, respectively, meaning that the majority of transfer payments were used for productive expenditures. These transfer payments are vital for county economic development.

In this context, counties are eager to raise local revenues and extricate themselves from prefecture governments’ restraint by demanding more financial power and discretionary control over local financial arrangements. Hence, with the aim of reducing the fiscal deficit, increasing fiscal power, and preventing prefecture authorities from holding back tax rebates, transfer payments, or subsidies from county governments, the central government introduced a “province directly administering county system” (*sheng guan xian*) in 2005. In this administrative arrangement, counties are directly administered by the provincial government, including allocating tax rebates, transfer payments, or subsidies. In 2008, the central government gave priority to major agricultural counties in adopting the “province directly administering county system”, and in 2009, the central government announced that this system should be applied nationwide, except for the autonomous regions, by the end of 2012 (State Council, Government of China 2009). In 2011, 970 out of 1,636 counties in 27 provinces adopted the “province directly administering county system” (Tao, S. 2013).

After the implementation of the “province directly administering county system”, the financial difficulties at the county level were effectively reduced and the financial power between prefecture and county levels of government rebalanced. Yang and Yin (2015) test the ratio of expenditure responsibility to budget revenues at the county level in nine provinces from 2003 to 2007, and the results show that the proportion increased by 10.2%. This suggests that the financial power of county governments has been increased and enhanced, while the corresponding financial power of prefecture governments has decreased (Yu, H. 2016). More importantly,

as increasing discretionary power has been delegated to county governments, the relationship between prefecture and county-level authorities has shifted from a supervisor–subordinate relationship to a relatively equal balance of power in local financial arrangements, which has resulted in vertical competition between prefecture and county governments (ibid.). The vertical competition between prefecture and county governments has been confirmed by Wang and Fang (2015), who find that, after adopting the new administrative system, the tax rate at county level declined by 0.45% to attract investment so as to raise local revenues.

Therefore, with the implementation of the “province directly administering county system”, the relationship between prefecture and county levels of government was altered, which granted county governments a degree of financial power which is roughly equivalent to that of prefecture governments. In the vertical competition between prefectural and county-level governments, the strategies for attracting mobile capital to increase local revenues are, in practice, the same as the strategies found in horizontal competition, such as lowering the tax rate, improving infrastructure, implementing favourable policies, etc.

Since Zhejiang is the third-smallest province in China, the distance between the prefectural cities and counties is short, and the number of counties which are administered by prefecture-level cities is relatively small (Wu 2004). Zhejiang has therefore followed the “province directly administering county system” since 1953, long before the central government introduced this system in 2005 (ibid.). When the tax-sharing system was adopted in 1993, Zhejiang province adjusted the sharing scheme between the provincial government and prefecture and county governments, based on their level of economic development (Yu, H. 2016). The allocation was based on the premise of fulfilling the local financial planning tasks and maintaining a balanced budget.

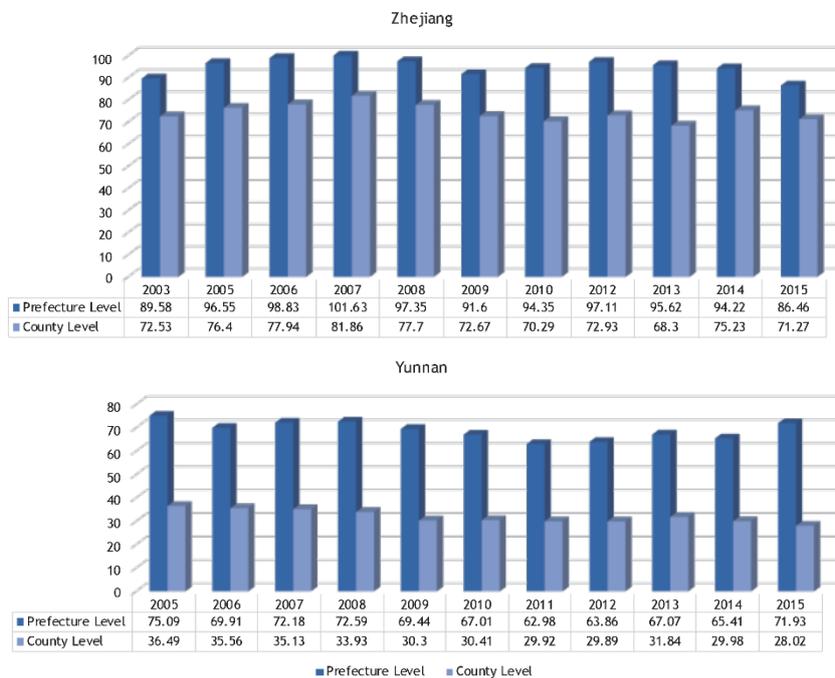
- a. For four less-developed prefecture cities and 28 counties, the provincial government provides proportional subsidies based on each region’s incremental revenues, and also gives an amount of reward equal to 5% of incremental revenues to prefecture cities, and 10% of incremental revenues to counties.
- b. For five well-developed prefecture cities and 25 counties, the provincial government provides a reward equal to 5% of incremental revenues to prefecture cities and 10% of incremental revenues to counties (ibid.: 61–62).

In 1992, Zhejiang launched a reform named *kuo quan qiang xian*, aimed at reinforcing the counties’ economic development by devolving more power to them. From 1999, the Zhejiang provincial government delegated economic management

power to county governments that was commensurate with that of prefecture authorities, and devolved administrative examination and approval power for 2,621 projects or items to county governments. Hence, since the 1950s, county authorities in Zhejiang province have had considerable discretionary power to determine schemes for local economic development.

As mentioned above, in 2009, the central government decided to implement the “province directly administering county system” nationwide. In 2009, Yunnan provincial government selected only three counties, Zhenxiang, Xuanwei, and TENCHONG, to apply the new administrative system (Yunnan People’s Congress Standing Committee 2011). By the end of 2010, earmarked transfer payment to the three counties had risen 43.5% year-on-year to 3.2 billion yuan (0.4 billion euro) and the general transfer payment had increased 13.3% year-on-year to 2.4 billion yuan (0.3 billion euro) (ibid.). In short, the implementation of the “province directly administering county system” in Yunnan is still in its initial stage.

Figure 6.13
Zhejiang and Yunnan self-sufficiency rates (%)



Source: National Bureau of Statistics (various years)

Figure 6.13 presents the financial self-sufficiency rates for Zhejiang and Yunnan at prefecture and county level. It shows that Zhejiang has maintained a high degree of financial self-sufficiency at both levels, while in Yunnan financial self-sufficiency rates are considerably higher at prefecture level than county level. From 2003, Zhejiang's prefecture and county governments' self-sufficiency rates remained steady around 95% and 74%, respectively. In Yunnan, the average self-sufficiency rate at prefecture level was about 69% while at county level it showed a downward trend from 36.5% in 2005 to 28% in 2015. This means that in Zhejiang, the budgetary revenues at both prefecture and county level can cover most budgetary expenditures, while about 70% of budget expenditures at county level in Yunnan depend on non-budget revenues such as transfer payments from superior authorities or various sources of government loans (Zhejiang Bureau of Statistics 2016, Yunnan Bureau of Statistics 2016). As already noted, only three counties in Yunnan have adopted the "province directly administering county system", lagging far behind other provinces, and the county level of government in the province still suffers from serious financial difficulties.

To sum up, under the "city administering county system", after the implementation of the tax-sharing system, the prefecture-level of government took advantage of its administrative power to squeeze county governments' financial resources and to assign more expenditure responsibilities to county governments. The county governments thus found themselves facing severe local budget shortfalls. To reduce the fiscal deficit and increase fiscal power, the central government introduced a "province directly administering county system". As increasing amounts of discretionary power were delegated to county governments, the relationship between prefecture and county-level authorities altered. The two levels of government had relatively equal financial power in local financial arrangements, which resulted in vertical competition between prefecture and county governments for attracting investment so as to raise local revenues. In practice, the purpose, strategies, and methods of the vertical competition between prefectural and county-level of governments are the same as those of the horizontal competition.

This discussion on inter-jurisdictional competition has shown that both horizontal and vertical competition derive from the implementation of the tax-sharing system and the rank-order tournament scheme. Local governments engaged in the two forms of competition aim to attract mobile capital so as to raise local revenue. Tax competition is one of the main types of intergovernmental competition, while other strategies include the provision of public services and improved infrastructure.

Additional factors such as the size of the local market, market accessibility, transport, labour wage rate, etc. all shape the investment environment, which substantially affects investors. Regions like Zhejiang, with a high marketization level, a high degree of mobility of entry to and exit from the market, and specialized and mature production and logistics networks, are better placed to attract mobile capital compared to regions like Yunnan. The latter, with low marketization level and low market mobility, is in a much less favourable position in competing for capital. To raise local revenue, local governments in regions that have difficulty attracting investment tend to put more effort into supporting local core firms. In short, a region's ability to attract mobile capital exerts a profound influence on local governments' behaviour and shapes state–business relations. Overall, intergovernmental competition makes a significant impact on regional development trajectories.

6.3 The recent evolutionary business system of Zhejiang and Yunnan (1979 to the present)

In the pre-reform period, both Zhejiang and Yunnan had completed the socialist transformation and carried out the national development plans; however, the regional differences between Zhejiang and Yunnan persisted. In this section, three questions will be answered.

- a. How have the development trajectories of Zhejiang and Yunnan been changed in the radical transition from the planned economy to the market economy?
- b. How do economic actors, such as local governments and enterprises, react, respond or adjust their behaviour to this radical institutional change?
- c. Does the market-oriented reform alter the pre-existing regional economic and institutional configurations and regional differences?

The main focus of this section is the path of development and the behaviour of economic actors in the transitional economy in Zhejiang and Yunnan. An in-depth discussion of how and why a particular path or a pattern of economic actors' behaviour has been shaped will be presented in section 6.4.

6.3.1 The revival and development of the Zhejiang economy

The initial stage of economic reform (1979-1991)

As discussed in previous sections, to overcome the problems generated by the planned economy, central government launched its economic reform. In 1979, central government acknowledged the “individual economy” as the “appendix to and complement of socialist collective economy” and in 1981 it promoted the individual economy as a “necessary complement” to socialism, which marked the revival of the private economy (Coase and Wang 2016: 58). In addition, as central government indicated in an official document issued in 1981, state-owned and collective enterprises were allowed to contract out parts of their business, including handicraft and small component manufacturing and repairing or other related services, to self-employed individuals — a practice which was entirely consistent with traditional Zhejiang merchants’ business activities in the imperial era. These changes allowed surplus labour and the pre-existing traditional handicraft industries to be “activated” (Chen, L. 2005). Within a short time, a large number of those classed as surplus labour, especially from rural areas in Zhejiang, started up businesses in small consumer goods, handicraft and component manufacturing (Ma, L. 2009: 125).

It is worth noting that, throughout the period of the privatization reform which began in 1979, the central government found itself confronting an ideological dilemma, which resulted in the private sector suffering from policy constraints and social discrimination (Coase and Wang 2016: 58–59, 75). In 1982, central government acknowledged the legal status of the individual economy and in 1988 individual businesses with eight or more employees were officially legalized as “private enterprises”. Although the number of individual businesses and private enterprises rapidly increased, before the market-oriented economy was officially recognized as an integral part of Chinese socialism in 1992, these businesses and enterprises had not received the protection from central government to which they were entitled (Coase and Wang 2016: 58–59). However, when the central government, and local government officials from other provinces, were still trapped in this ideological dilemma, Zhejiang local government had already started supporting individual businesses and private enterprises, especially in Wenzhou, the cradle of the private economy in China.

In Wenzhou, which had received the smallest proportion of central government investments during the pre-reform period, the state-owned economy was relatively weak. After the “individual economy” was recognized by central government in 1979, Wenzhou authorities officially registered the first “individual business” in China on 30 November 1979 (Ma, L. 2009: 125, Coase and Wang 2016: 58). A large

number of individual businesses based on the family workshop rapidly appeared, causing a heated nationwide debate on “capitalism or socialism” (Ma, L. 2009: 32). In the initial stage of privatization reform, the Wenzhou government had faced relatively strong political and social pressures from the central government and local governments in other provinces with regard to its support for the individual economy. As described above (section 6.1.1), during the pre-reform period, the people’s commune system in rural areas had established a large number of “commune-brigade enterprises”, which mainly worked in agro-industry and the raw materials industry (Wang, C. 2014). After the reform, the central government renamed these commune-brigade enterprises “township and village enterprises” (TVEs) and encouraged households or individuals to set up TVEs, meaning that TVEs could be run by people’s communes, households, individuals, or other collective forms (ibid.). To reduce political risks and obstruction and to promote the individual economy, in 1980 the Wenzhou government allowed the family-based individual businesses and private firms to “put on a red hat”, affiliating themselves to the state-owned TVE sector, which received ideological protection. The “red hat” enterprises were termed “hang-on household” (*guahu*) enterprises (Parris 1993). These family-based *guahu* enterprises rose rapidly in number, especially in rural area, and became the typical business model in Zhejiang. In the 1980s, Wenzhou’s “one region, one firm, all families affiliated” model was widely applied in Zhejiang: local government established one TVE and let all the family-based workshops or family businesses within their jurisdiction affiliate with the TVE; at the same time, each workshop and individual business assumed sole responsibility for its own profits or losses (Cao, Z. 2006: 105). By the mid-1980s, 62% of family-based businesses in Zhejiang were *guahu* enterprises (Parris 1993: 245). This model provided the basis for the highly specialized and interdependent industrial cluster in Zhejiang.

From 1979 to 1984, due to the acute nationwide shortage of essential consumer goods and components for SOEs, firms in Wenzhou made great profits from low-cost clothes, footwear, buttons, tools, etc. (Cao, Z. 2006: 91). In the mid-1980s, increasingly intense competition meant that enterprises were keen to expand the scale of production and improve production quality. Affiliation with the state-owned sector did not suit the needs of these firms, which led to the appearance of the joint-stock cooperative enterprise. With the aim, once again, of reducing political risks and obstruction, in 1987 the Wenzhou government issued an official document, emphasizing that the joint-stock cooperative enterprise is the complement of the socialist collective economy (Ma, L. 2009). From 1980 to 1990, the Wenzhou

government issued dozens of official documents to regulate and provide localized legitimate protection for the private sector, which represented the first regulations on private enterprises in China (Ma, L. 2009). By the end of 1987, there were about 2,200 joint-stock cooperative enterprises registered in Wenzhou (Cao, Z. 2006: 113). The Wenzhou model was adopted in other regions in Zhejiang and, building on Wenzhou's successful experience, TVEs and SOEs in Zhejiang began the transition from the state-owned sector to the private sector.

At the same time, other local governments in Zhejiang also provided protection and supported individual businesses and private enterprises. Yiwu is a county city in Jinhua, where the sugar industry had flourished since the Ming dynasty and which had formed 31 trade markets in 1922 (Zhou, H. 2009). Due to the poor availability of cultivable land in Yiwu, large numbers of local residents worked as salespeople, peddling sugar in exchange for the traditional fertilizer — feathers. However, “sugar for feathers” peddling activities had been severely restricted during the planned economy period (*ibid.*). As soon as the individual economy was recognized by central government, Yiwu government began issuing “sugar for feathers” licences to local residents: 12,000 licences were issued from 1980 to 1981 (*ibid.*). In 1979, the Yiwu government had also issued an official document on resuming the trade markets, in which they stated that the trade market is not only a traditional custom but also a necessary complement of the socialist economy. Two years later, the Yiwu fair trade market was reopened (Ma, L. 2009: 23). In the following years, Yiwu's trade markets expanded and have promoted the development of industrial clusters in other cities in Jinhua.

Overall, from 1979 to 1991, with strong support from local governments, the private sector emerged and developed rapidly in Zhejiang.

As shown in Figure 4.1, in 1979, the agricultural sector contributed 42.8% to the GRP of Zhejiang, while the proportion of industrial sector was 40.6% (National Bureau of Statistics 1996). From 1980 to 1991 the proportion of output value from industrial sector surpassed the other two sectors, maintaining a steady rate of 45% (*ibid.*). Indeed, from 1983 to 1991 the proportion of industrial output in Zhejiang was higher than the overall proportion of industrial sector output in China (*ibid.*).

It can thus be said that in the initial stage of reform, when individual businesses and private enterprises confronted political and social discrimination, Zhejiang local governments were generous towards the private sector. Importantly, different levels of local government in Zhejiang exhibited different attitudes towards the private sector. Lower-level local authorities, such as county or prefectural governments, took positive action in promoting private business, while the provincial

government's support to the private economy was more tacit (Chen, S. 2009: 37, Ma, L. 2009: 67). It was too politically risky for the provincial government to take a clear-cut stand on promoting the private sector (Ma, L. 2009: 67). Nevertheless, Zhejiang local governments had a very tolerant attitude towards private sector enterprises in the 1980s and early 1990s. With the support and protection of local governments, the number of family-based individual businesses and private enterprises increased significantly.

Overall, then, the private sector was quick to emerge and develop in Zhejiang. The pre-existing economic, industrial, and institutional configurations in Zhejiang, which were already more market-oriented, were rapidly "activated" when the reform started. The emerging private sector not only absorbed large numbers of surplus labourers but also met the needs of local governments facing difficult economic conditions. Hence, the successful emergence of the private sector in Zhejiang was the product of pre-existing social, economic, cultural, and institutional configurations, combined with the initial distribution of resources, which also had a profound impact on local governments' behaviour. Since 1978, Zhejiang local governments have been deeply involved in local economic development. In the initial stage of reform, prefectural and county-level governments actively provided a safe political and legal environment to emerging private sector businesses, which laid the foundations for the later development of high specialized industrial clusters in Zhejiang, while the provincial government, constrained by political risks, gave its tacit support to the private economy. During this period, lower-level local governments played a significant role in local economic development, especially in Wenzhou.

Economic development after 1992

In 1992, Deng Xiaoping's speech ended the "capitalism or socialism" debate by introducing the notion of the socialist market economy, and his "no debate, try boldly" principle (Coase and Wang 2016: 66) created a more flexible political environment which considerably encouraged the development of the private sector. In 1993, Zhejiang provincial government issued an official document, emphasizing the importance of the private sector to local economic development and encouraging local authorities to treat the private sector as a crucial source of growth (Ma, L. 2009: 76). Zhejiang was the first province to prioritize the development of the private sector, and from then on, the lower-level local authorities actively devoted themselves to supporting and promoting the private sector (ibid.: 76–77).

The rapid growth of the private sector within the economic development of Zhejiang was attributed to the diffusion effect of the successful Wenzhou model. In the 1980s, the Wenzhou model was widely adopted in other regions, even in some cities which had state-owned sector such as Ningbo, Shaoxing, Jiaxing, Huzhou, and Hangzhou (Ma, L. 2009: 125). As already noted, TVEs made a significant contribution to the development of the private sector and marketization in Zhejiang, especially in the 1980s and early 1990s. The TVEs acted like an incubator for new enterprises, providing legitimate protection of the private sector, creating job opportunities for large numbers from the surplus labour force in rural areas, and promoting rural industrialization and urbanization. Unlike SOEs, TVEs had relatively high levels of flexibility and were not subject to control through the state's industrial production plans, enabling TVEs to determine their own products and production, based on market demand (Coase and Wang 2016: 55–56). These features provided the affiliated family-based workshops or family businesses in Zhejiang with great opportunities for development. As the economic reform progressed, TVEs were gradually privatized. By 1994, 83% of TVEs were actually private enterprises (Coase and Wang 2016: 55). From the early 1980s onwards, the “one region, one firm, all families affiliated” model provided a basis for shaping the highly specialized and mature production networks in Zhejiang. With the support of local governments, industrial clusters in Zhejiang developed rapidly and made a significant contribution to local economic growth.

When the tax-sharing system was adopted in 1994, the majority of administrative, managerial, and decision-making powers had been delegated to local governments, with each level of subnational government required to establish its own financial management system and to maintain a balanced budget. Under this self-contained system, and with the strong incentives deriving from the rank-order tournament, local officials devoted themselves to promoting local economic development. To provide more incentives to local governments, alongside the “province directly administering county system”, the Zhejiang provincial government carried out administrative reforms which gave greater administrative autonomy to counties which had better economic performances (Chen, S. 2009: 38). From 1992 to 1997, 13 counties were granted administrative autonomy and some approval power at prefecture level, and in 2002 the provincial government devolved administrative authority of 313 items to 17 counties and three districts. In 2006, Yiwu was selected for a pilot project to expand socio-economic administrative authority (ibid.). With increasing economic administrative autonomy, Zhejiang's counties generally saw their economies improve. In 2007, counties in Zhejiang contributed 62.4% of GRP and 54.3% of

total fiscal revenues, and created 70.5% of all jobs (*ibid.*). Hence, the financial and administrative system adopted in Zhejiang and the rank-order tournament have played a substantial part in promoting local economic development.

As well as making various commitments to tax deductions, exemptions, and refunds to firms in different industrial zones, Zhejiang governments tended to invest in productive expenditures, especially in infrastructure construction. Due to the lack of infrastructure investment during the pre-reform period, infrastructure construction had lagged behind, especially in Wenzhou, which had no railway system or airport. In 1995, infrastructure investment in Zhejiang was 23 billion yuan (2.9 billion euro), accounting for 20% of total investment in fixed assets, and in 2000 the investment in infrastructure increased to 87.6 billion yuan (11 billion euro), representing 38.7% of total investment in fixed assets. Although the percentage of the investment in infrastructure to the investment in fixed assets has decreased, the ratio has remained around 25% and in 2017 the total investment in infrastructure was 741.8 billion yuan (93 billion euro), accounting for 27.8% of total fixed assets investment in Zhejiang. At the same time, in order to compete for mobile resources, the Zhejiang government regulated the informal financial organizations and established various credit guarantee institutions for SMEs; in addition, in 2004 Zhejiang provincial government launched a training project for private enterprises (Ma, L. 2009: 117).

After the tax-sharing reform, and with increasingly fierce competition between local governments for leading cadres' promotion, the main role of local governments was to provide favourable policies, relax regulations and simplify application processes, invest in productive expenditures, and create a good business climate for attracting mobile capital. Notably, after China became a member of the World Trade Organization (WTO) in 2001, the import and export value sharply increased in China. With their geographical advantages, firms in Zhejiang — mainly private enterprises — started exporting and embedding themselves in global value chains. As private enterprises can easily enter the global market, these firms are becoming less dependent on the domestic market and local governments. Hence, since the mid-1990s, the role of local governments in Zhejiang has gradually shifted to service-oriented governance which shapes the state-supported type of environment. With the support of local government (from a distance), the private sector has grown rapidly and has become the main contributor to local economic development and the processes of development that have shaped the current Zhejiang business system.

6.3.2 The developmental path of the Yunnan economy

The short boom of light industry before 1992

During the pre-reform period, the implementation of the heavy industry-oriented development strategy and the Third Front Movement resulted in serious imbalances between agriculture and industry, as well as between light and heavy industry. At the same time, the Great Leap Forward campaign and the Cultural Revolution nearly destroyed the national economy. Hence, after the end of Cultural Revolution in late 1976, leading cadres made many trips abroad not only to rebuild relations between China and other countries, but also to find solutions for rebuilding the devastated economy (Coase and Wang 2016: 42). After the Third Plenum in 1979, the central government carried out a series of reforms. In order to resolve the structural imbalances, the central government made the development of agriculture a priority, slowed down the development of heavy industry, and increased investment in light industry (ibid.: 157–158). Furthermore, with the aim of tackling the inefficiency problem of SOEs generated by the highly centralized and unified management system, central government devolved greater decision-making power to both local governments and SOEs; shortly afterwards, it allowed SOEs to retain their own profits and introduced the managerial responsibility contract system into SOEs. After 1992, with the private sector fast developing, central government encouraged SOEs to convert to joint-stock enterprises in order to guarantee the autonomy of enterprises, and to specify their responsibilities as a way of introducing the market mechanism into SOEs.

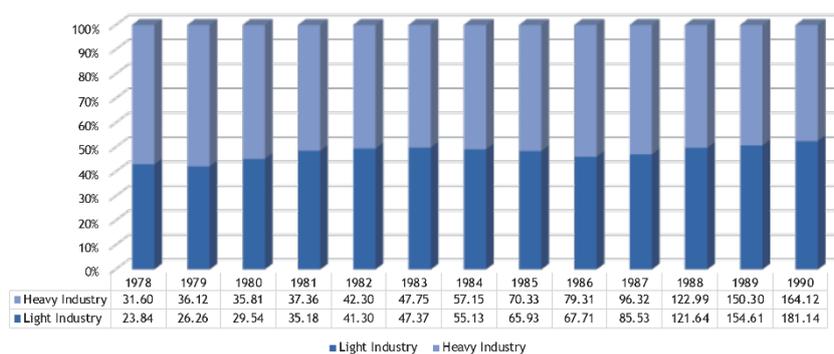
Due to the acute shortage of essential goods, from 1979 to 1990, the first priority of Yunnan was to develop agriculture and light industry. In the initial phase of economic reform, and in the light of local conditions, Yunnan provincial government naturally turned to the most resource-rich industries including tobacco, tea, sugar, pharmaceuticals, and rubber, as well as mineral and metal mining and the smelting industry (Yang, Q. 2010: 32). During this period, only the central and provincial governments had approval rights for investment in infrastructure. The Yunnan provincial government therefore reduced investment in non-productive and off-budgetary projects, so that it could concentrate resources on the development of agriculture and light industry as well as mining (ibid.: 22). In the late 1980s, tobacco, sugar, tea, rubber, and mining became the major contributors to local economic development.

In the late 1970s, the central government had promoted the transformation of military enterprises into “civilian SOEs” by encouraging them to make related commercial goods or to diversify their businesses to other sectors (Chao, L. 2009).

Hence, from 1979 the majority of Third Front military enterprises in Yunnan started converting into “civilian SOEs”. In 1979, three military enterprises began to manufacture consumer goods and to build their own brand: Spring Flower bicycle, Orchid refrigerator, and Camellia vehicle. Together with White Rose washing machine and Japonica television, made by two SOEs, these five products — known as the “Five Golden Flowers in Yunnan” — had risen to national prominence by the early 1990s (Yang and Zhan 2014). During this period, light industry in Yunnan developed substantially. At the same time, as required by central government in order to control the scale of investment in fixed assets, the Yunnan government cut investment in infrastructure construction (Yang, Q. 2010: 32). In addition, the Yunnan government carried out financial reform aimed at changing the basis of investments from grants to bank loans, and adopted the managerial responsibility system in SOEs, meaning that SOEs had more decision-making powers and should assume sole responsibility for their own profits and losses (*ibid.*).

As illustrated in Figure 4.9, from 1978 to 1990, with government support, agricultural sector made up the largest part of total GRP in Yunnan. In 1978, the output value of agricultural sector was 2.9 billion yuan (0.36 billion euro), accounting for 42.7% of GRP of Yunnan, while industrial and service sectors contributed 39.9% and 17.4% respectively. The proportion of agricultural sector remained above 40% from 1978 to 1985, followed by a slight decline. Overall, except for 1988 and 1989, agricultural sector had the largest output value among the three sectors.

Figure 6.14
The share of gross industrial output in Yunnan (1978-1990)



Source: Yunnan Bureau of Statistics (various years)

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Figure 6.14 shows that from 1978 to 1990, the percentage of output value of heavy industry to the total industrial output value shows a downward trend. In 1978, the output value of heavy industry in Yunnan was 3.2 billion yuan (0.4 billion euro), accounting for 57% of total industrial output value, while the output value of light industry was 2.4 billion yuan (0.3 billion euro), accounting for 43%. However, with the change of developmental strategy from 1979, the output value of light industry in Yunnan began an upward trend. In 1989, the output value of light industry surpassed that of heavy industry and in 1990, light industry contributed 52.5% of total industrial output value in Yunnan (Yunnan Bureau of Statistics 2016).

Thus, during the initial stage of reform, investment in heavy industry was reduced in order to address the disproportionate growth of heavy industry compared to light industry. With government support, the output value of agricultural industry and light industry increased. In this stage, the state sector was still in a dominant position, while the private sector played no role in local economic development.

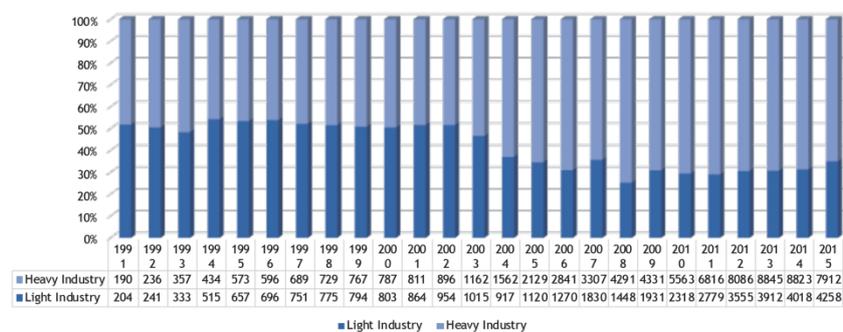
The enhancement of the state sector after 1992

In 1990, the Yunnan provincial government stated that the major targets of its Eighth Five-Year Plan were to: (a) maintain the growth of the tobacco, sugar, and tea industries; (b) focus on the development of the phosphorus, rubber, steel and other metal making and paper making industries; and (c) increase investment in infrastructure construction (He, Z. 1990). Moreover, in a report in 1993, the provincial government emphasized the importance of service sector and stated that the first priority in the 1990s should be develop the tourist industry (He, Z. 1993). According to Yunnan's Ninth Five-Year Plan (1995–2000), the provincial government was to focus on: (a) promoting four local core industries: tobacco, biological resources development, mining, and tourism; (b) increasing input into infrastructure construction; and (c) supporting projects to develop high-tech machinery (Yang, Q. 2010: 32). As already noted, after the end of the “capitalism or socialism” debate in 1992, the central government created a relatively supportive political environment for private capital and substantially promoted the development of the private sector. Hence, in Yunnan's Ninth Five-Year Plan, the provincial government encouraged the development of collective enterprise and individual business, and planned to attract FDI (*ibid.*).

In 2000, Yunnan's provincial government proposed a strategy for promoting local economic development through launching large projects, including 100 provincial projects and 100 prefecture projects (*ibid.*). At the same time, besides promoting the four core industries, the provincial government substantially increased

its investment in agricultural infrastructure and electric power plants, to solve the problem of electricity supply, and continued to support the development of the non-state sector (ibid.). In 2003, as well as the local core industries, Yunnan's provincial government focused on supporting the chemicals industry, coal mining, the construction materials industry, and the electronics and rubber industries (ibid.). An examination of the Five-Year Plans of the following years demonstrates that the Yunnan local government has generally been consistent with its investment and industrial development strategy.

Figure 6.15
The share of gross industrial output in Yunnan (1991-2015)



Source: Yunnan Bureau of Statistics (various years)

The proportion of output of agricultural sector to the GRP of Yunnan shows a significantly downward trend from 32.8% in 1991 to 15.5% in 2015, as illustrated in Figure 4.9. Since the provincial government started to promote the tourist industry in the early 1990s, the proportion of output value of service sector gradually increased, from 32.5% in 1991 to 43.3% in 2015, surpassing the contribution of industrial sector from 2014. Nevertheless, the proportion of industrial sector remained above 40% from 1993 to 2015. Overall, from 1991 to 2015, industrial sector had the largest output value among the three sectors, while service sector shows an upward trend. Moreover, as shown in Figure 6.15, from 1991 to 2001, the output value of light industry in Yunnan was higher than that of heavy industry, although from 2003, the output value of light industry declined sharply and the output value of heavy industry increased, from 116.2 billion yuan (14.5 billion euro) in 2003, accounting for 53.4% of total industrial output value, to 791.2 (98.6 billion euro) in 2015, or 65% of total industrial output value (Yunnan Bureau of Statistics 2016).

It is clear that since 2000, the development of light industry has slowed down while heavy industry acts as a major contributor to Yunnan's economic development. It is worth noting that the output value of the tobacco industry in Yunnan accounts for nearly 40% of the total output value of light industry (Yunnan Bureau of Statistics 2016), meaning that, with the exception of the tobacco industry, the development of light industry in Yunnan has been at a relatively small scale compared with heavy industry. The "Five Golden Flowers" came to prominence as representative of Yunnan's light industry, but as the private sector developed in China and large numbers of manufacturers emerged, the "Five Golden Flowers" gradually lost ground in the competitive market. By 2002, they had been completely driven out of the market (Yang and Zhan 2014). With the rapid growth of the private sector in other regions, especially eastern coastal areas like Zhejiang province, SOEs gradually lost their advantage. Moreover, the strategy of the Yunnan provincial government to promote local economic development through large projects, launched in 2000, resulted in increased investment in heavy industry, and a decline in the output of light industry in Yunnan.

As described earlier in this thesis, Yunnan has been a typical resource-based economy due to the region's rich natural resources. In 2000, the output value of resource-based industry accounted for 48.5% of total industrial output value in Yunnan, and in the following years, that percentage increased. In 2007, the output value of resource-based industry accounted for 66.7% of total industrial output value, and in 2012 the proportion peaked at 80.6% of total output value. From 2013 the figure has decreased slightly and settled at around 76% of total industrial output value (Yunnan Bureau of Statistics 2016). As discussed above, when local governments attempt to carry out economic reform, they always turn to the most resource-rich industries or sectors; as a result, Yunnan's provincial government focused on local natural resources and promoted the resource-based economy in both light and heavy industry after the economic reform — a strategy which is highly consistent with the path of development in Yunnan since the 13th century. Several SOEs which were established by Yunnan's military government during the war period are still in existence and still manufacturing today. Overall, Yunnan's local economic development has relied extremely heavily on local resources, especially mineral and metal resources. However, the majority of enterprises in resource-based industries are engaged in processing low value-added raw materials and simple products, an industrial structure which brings relatively low economic rewards.

We have also seen in previous sections that Yunnan has had a strong state sector for centuries. Although provincial governments have encouraged the development

of the private sector and implemented SOE reform since the early 1980s, SOEs in Yunnan still play a dominant role in local economic development and the private section in Yunnan is comparatively weak. The output value of SOEs and state-holding enterprises in 2010 accounted for 79.6% of total industrial output value in Yunnan, and although from 2011 to 2015 this showed a downward trend, the output value of SOEs and state-holding enterprises still accounted for at least 60% of total industrial output value (Yunnan Bureau of Statistics 2011–2016). However, the performance of SOEs and the effects of reform in Yunnan are disappointing. During the market transformation, large numbers of SOEs in both light industry (for example the “Five Golden Flowers”) and heavy industry went bankrupt and more SOEs have found themselves in a financial predicament.

It can thus be argued that the resource-based industrial structure and the dominance of loss-making SOEs are the two major constraints on Yunnan’s economic development. Based on my interviews with sampled SOEs in Yunnan during the fieldwork, and building on the approach of Coase and Wang (2016) and their explanation for the failure of SOE reforms, the lack of success of SOEs in Yunnan can be attributed to the following factors.

- a. SOEs have been subject to supervision not only by every level of government, from central SASAC to the local-level SASAC at which the SOEs are registered, but also by the bureaux of specific industries; hence, SOEs have been in a “web of regulation” (Coase and Wang 2016: 70–71). As many sampled SOEs in Yunnan confirmed, even after the SOE reform, the business activities of SOEs have remained constrained by “administrative red tape” (ibid.: 55–56). This means that while entry barriers and the administrative procedures for private enterprises have been substantially reduced and simplified, SOEs in Yunnan, as well as in other provinces, have to wait for approval by SASAC and other authorities. However, business opportunities cannot wait.
- b. Although the responsibility system and joint-stock company model have been adopted in SOEs, in practice the salaries of employees are not linked to productivity and more than half of executives are appointed by SASAC (Han 2010). Therefore, SOEs fail to provide incentives to workers to improve their products and productivity or to adopt new technologies (Coase and Wang 2016: 72). The majority of sampled SOEs in Yunnan, especially upstream firms, are reluctant to invest in new products or technology

unless unexpected situations occur, such as the implementation of “de-capacity” policies.

- c. As the backbone of Yunnan’s economy, the highly resource-dependent and capital-intensive SOEs have maintained strong ties with local governments. These strong relations between authorities, firms, and SOEs result in the phenomenon of soft budget constraints, meaning that the Yunnan local government is willing to bail out inefficient or loss-making firms, which substantially hinders SOE reform as well as the development of the local economy.

It is notable that, in Yunnan, the soft budget constraint phenomenon applies both to SOEs and to large regional core enterprises in the private sector. Hence, even though the regional core firms might have poor economic performance, the local government still tends to provide financial, institutional, or administrative support. For instance, many firms in the steel industry have been affected by the de-capacity policies in Qujing. To overcome the “steel crisis”, six large regional core firms integrated as the largest iron and steel corporation in Qujing, initiated and promoted by local government.

In view of the discussion above, it is not difficult to understand the poor economic performance of Yunnan. Yunnan has a long history of heavy industry and has a strong state sector which has exerted control over local resources since the days of ancient China. This typical institutional and industrial structure and configuration in the imperial and the war eras was strengthened during the pre-reform period, and became an institutional obstacle during the transformation to a market economy in the 1990s, exerting a profound influence on the behaviour of local governments. An examination of the Five-Year Plans since 1978 shows the Yunnan governments’ deep involvement in local economic development. The major local industries were, to a significant degree, guided, invested, and overseen by local governments. At the same time, the predominant SOEs in Yunnan have been supervised by every level of government and constrained by “administrative red tape” (Coase and Wang 2016: 55–56). Economic reform in Yunnan has been a top-down affair, meaning that the provincial government acts as decision-maker while lower levels of government act as executants. After the tax-sharing reform, with increasingly fierce competition between local governments for leading cadres’ promotion, local governments have tended to bail out inefficient or loss-making firms in order to survive in the competitive environment. Basically, the role of Yunnan local governments has not changed during the economic reform: the high degree of reliance on local government is typical of the institutional features of Yunnan as a state-led

environment. With the support of local government, SOEs and heavy industry are still the main contributors to local economic development, which shapes the current Yunnan business system.

To sum up, since the economic reform was launched in 1979, China's economic system has undergone a tremendous transformation at both the micro and macro levels of the system. The emergence and development of the private sector, promoting the establishment of a "modern" corporate system in SOEs, and the relaxation of market regulations for enterprises have given vitality to the market. Meanwhile, under the terms of fiscal reform, local governments are required to establish a financial management system and maintain a balanced budget, and more discretionary powers to determine local financial systems have been delegated to local governments. Thus, self-contained and relatively independent local governments, with strong incentives provided by the rank-order tournament under the nomenklatura system, compete for resources to maximize local interests. Taking a panoramic view of the transformation since 1979, it is clear that the implementation of the unique decentralization reform and the promotion system together create a highly competitive environment for local governments in promoting local economic development, which becomes one of the fundamental forces shaping development trajectories and economic actors' behaviours.

Local governments and enterprises in Zhejiang and Yunnan have had different reactions and responses to these institutional changes. The market-oriented reform has not fundamentally altered the pre-existing regional economic and institutional configurations in Zhejiang and Yunnan. Rather, their regional differences have persisted and been enhanced. The final part of this chapter will present an in-depth discussion of how and why particular development trajectories and certain patterns of economic actors' behaviour have been shaped.

6.4 The changing role of local governments in Zhejiang and Yunnan since 1979

This chapter has discussed the economic reform in China and how local governments and enterprises in Zhejiang and Yunnan reacted to the institutional changes being introduced. The market-oriented reform did not alter the pre-existing regional economic and institutional configurations in Zhejiang and Yunnan. The regional differences between Zhejiang (market-led development trajectory) and Yunnan

(state-led development trajectory) have persisted and even been enhanced in the transitional economy. This section will address the following questions.

- a. How could economic actors and the private sector in Zhejiang be activated immediately reform began? Why did Yunnan have different reactions to the reform?
- b. Why was there little resistance in Zhejiang to institutional change from a highly unified and planned economy to a market-oriented economy, while Yunnan exhibited strong institutional stickiness during the reform?
- c. How are we to understand the evolving role of local governments in the transitional economy?
- d. Will regional differences and the distinctive regional development trajectories in Zhejiang and Yunnan converge or diverge over time?

6.4.1 The changing role of local governments in Zhejiang

As already described, Zhejiang reacted immediately to the changes in the central government's attitude towards the private sector. Since the start of economic reform in 1979, and with substantial support from local government, the private sector in Zhejiang has experienced phenomenal growth and now plays a crucial role in local economic growth.

Once the privatization reform began, the pre-existing development path and business culture in Zhejiang contributed significantly to the quick revival of the private sector in Zhejiang. As shown in Chapter 5, Zhejiang's development trajectory since the imperial period followed a typical process of transition from a feudal agrarian society to the path towards modern industrialization and capitalism. With the establishment of market-based relations and a market-led development path, Zhejiang had formed a relatively high degree of regional cohesion. The dominant manufacturing industries (i.e. textiles and handicrafts), mode and relations of production (i.e. family-based factories and horizontal diversification), and financial system (i.e. private banks) in Zhejiang during the imperial period evidenced the embryonic form of the existing Zhejiang business system. Hence, the early form of the business system and market-oriented development trajectory in Zhejiang could be observed.

During the planned economy period, the socialist transformation and the heavy industry-oriented development strategy temporarily compelled Zhejiang to deviate from the market-led development trajectory. However, institutional changes always have to conform to the region-specific resource base, even in a highly unified and

centralized system. Because of national security considerations and the regional resource endowment, Zhejiang was marginalized in the state's development strategy, which resulted in the slow growth of the state sector in Zhejiang. However, precisely because of this weak state sector, Zhejiang had an institutional advantage: a low level of institutional stickiness. The marginalized position, weak state sector, and severe economic conditions provided room for the sprouts of a market-oriented business system to be quietly preserved during the pre-reform period. When the central government initiated its market-oriented reform, which is entirely consistent with the path of development before the planned economy period in Zhejiang, the economic actors in Zhejiang could be quickly re-activated and could immediately respond to the changes in the central government's attitude towards the private sector. Hence, the planned economy period can be considered as an interruption or repression of the market-led development trajectory of Zhejiang.

The market-led business system and business culture have exerted a persistent influence on the behaviour of economic actors in Zhejiang during the transition from the planned economy to the market economy. Those who could be classified as surplus labour, who suffered from survival pressure and who were eager to search for employment in the pre-reform period, immediately responded to the relaxation of entry barriers of traditional manufacturing and handicraft industries. At the same time, local governments actively guided, protected, and supported the emerging private sector as a way to overcome unemployment and promote the development of individual enterprise, as the highly centralized planned economy was recognized to have been a failure.

At the initial stage of reform, the private sector had to confront political, ideological, and social pressures. In order to protect and promote the newly emerging individual business sector, local government innovatively created a legal framework, namely "red hat" enterprises, and also encouraged and guided enterprises to begin new forms of inter-firm coordination through the "one region, one firm, all families affiliated" model. This new form of enterprise and the new model of coordination were the most important institutional innovations in the early stage of reform in Zhejiang, which not only provided political protection and support for the development of the private sector, but also shaped the early form of the industrial cluster in Zhejiang. In the 1990s, this model was widely applied and helped to form a large number of industrial clusters, which shaped the distinctive existing industrial structures in Zhejiang.

As discussed in Chapter 5, since the imperial period, Zhejiang had already shown an openness to innovation, and a high level of flexibility, capability, and adaptability when facing external shocks. New technologies were actively adopted and new forms of organization were created for surviving in the given economic and institutional environment; at the same time, the market-led development path was embraced and promoted. The historical shocks experienced in Zhejiang since the imperial period had a lasting impact on the behaviour of economic actors, and gave deep roots to the developmental path and business culture in Zhejiang. Hence, although Zhejiang encountered ideological and social pressures and political risks in the initial stage of economic reform, local governments and firms continued to show a high level of flexibility and adaptability in institutional innovation. The new forms of organization for defusing institutional pressures (such as a certain level of resistance to the radical institutional change from a planned economy to a market-oriented economy) substantially extended and renewed the existing local development path. As the national market-led development strategy is entirely consistent with Zhejiang's development trajectory, the institutional innovation of its local governments and firms and the state–business interaction and cooperation have innovatively enhanced path dependence of its market-led development trajectory.

Before 1992, when the rest of China was still trapped in the “capitalism or socialism” ideological dilemma, local governments in Zhejiang, especially the lower levels of local authorities, were highly supportive and positively involved in regional economic development by offering political protection and responding dynamically to business initiatives. After the ideological debate was resolved in 1992, the central government created a more relaxed political environment in which to carry out the market-oriented reform and delegated more decision-making and financial powers to local governments. The promotion system was also linked to regional economic performances. Hence, the implementation of the tax-sharing system, the M-form administrative system, and the rank-order tournament scheme all provided strong incentives to promote regional development, intensifying inter-jurisdictional competition for attracting mobile capital.

The highly competitive environment for local governments shaped by the unique decentralization reform and promotion system in China drove Zhejiang's local government to change the way it regulated economic actors and the level at which it became involved in economic activities. In other words, as a result of inter-jurisdictional competition, the role of local governments in Zhejiang gradually shifted to a regulatory and service-oriented role, from a distance. Two factors can explain the changing role of Zhejiang local governments. First, because tax

competition, one of the major forms of inter-jurisdictional competition, spurs a race to the bottom among local governments, tax competition strategies between local governments gradually show a tendency to homogeneity. Hence, in order to create a favourable regional investment environment to attract mobile capital, other forms of inter-jurisdictional competition become important, such as providing good public services and improving infrastructure. Second, as discussed in Chapter 4, the Zhejiang business system was characterized by a high marketization level and high degree of mobility in entering and exiting the market, as well as labour mobility, and specialized and mature production and logistics networks. Due to the high degree of competitiveness, mobility, and fluidity of market entry and exit, the economic actors coordinate their activities mainly through the competitive market arrangement, without local government intervention. In other words, in the highly marketized investment environment, it is risky for local governments to directly invest in firms because highly mobile firms have the option to choose their jurisdiction and may decide to move to access other opportunities. Hence, to attract investment in the highly competitive environment after 1994, Zhejiang's local governments gradually took on an arms-length, service-oriented role which included implementing favourable policies, relaxing regulations, simplifying application processes, establishing private financial service centres, improving infrastructure, etc., to create a positive investment environment.

Overall, inter-jurisdictional competition plays a crucial part in shaping the role of local government in Zhejiang (i.e. a regulatory and service-oriented role, from a distance) and determining state–business relations (i.e. enterprises in Zhejiang shows less dependence on local governments to support their business). Moreover, the target market of private enterprises in Zhejiang gradually shifted from the domestic market to the global market once China joined the WTO in 2001. The change of target market, as an external factor, influences state–business relations and the role of local governments, as firms become less dependent on the domestic market and local authorities. Therefore, the highly competitive environment has substantially enhanced and strengthened the market-led development trajectory in Zhejiang.

It is worth mentioning that Zhejiang's economic performance has been ahead of most of China for decades, but due to rising labour costs in Zhejiang, labour-intensive and low-tech manufacturing industries have started shifting to inner China or Southern Asian countries. The traditional light industries in Zhejiang have gradually lost their advantage and are now facing great challenges.

Zhejiang is dominated by low-tech, low-cost, family-based, small and medium-sized private enterprises, which form highly specialized and mature production networks, and tend to maintain informal long-term commitments and long-term inter-firm relations. These distinctive industrial structures were initially shaped by the “one region, one firm, all families affiliated” model, which expanded and became the basis for a large number of clusters in Zhejiang. However, as Martin and Sunley (2006: 415) argue, the evolutionary regional economy is an ongoing process which can transform from a positive lock-in to a negative lock-in. According to Grabher (1993a), the stable linkage between regional core firms and suppliers would result in functional shortcomings in terms of investment in R&D and the development of marketing and distribution departments within clusters, locking the firms into a vicious circle of exchange relations.

As mentioned above, the cooperative model in Zhejiang has been persistent and has shaped the long-term inter-firm relations with informal long-term commitments since the 1980s. For decades, the positive feedbacks and economic outcomes of the Zhejiang model have enhanced the dominant path of industrial development. Due to their long-term commitments and in order to maintain and facilitate inter-firm cooperation and reduce transaction costs, both regional core firms and firms in upstream, especially family-based, SMEs dispense with investment in R&D and innovation activities. The stable linkages between regional core firms and suppliers in Zhejiang cause a functional lock-in and ultimately result in technological lock-in due to the unwillingness to leave the existing technological trajectory. However, firms in Zhejiang mainly manufacture simple consumer products with a relatively small input of capital and technology; this implies less investment and a high degree of reversibility and transferability. In the highly competitive and fluid market, firms in Zhejiang, especially SMEs, have sufficient possibility to escape from an inefficient path of development. Hence, the challenge for local economic development in Zhejiang is to recognize inefficient paths and to make efforts to de-lock firms from the negative lock-in process.

6.4.2 The changing role of local governments in Yunnan

Given that local industrial structures substantially conform to the local resource base and capital naturally gravitates towards the richest resources in a region, since the late 13th century, Yunnan had developed a highly resource-dependent and capital-intensive industrial path. The strong impact of historical shocks (the mass migration, the opening of the Kunming–Haiphong railway, the colonial project, and the relocation of modern mechanized companies) largely reinforced and enhanced

the local industrial structure and industrial path. Due to their commanding height in the local economy, core resource-dependent industries were directly controlled by the imperial state and local ruling parties, resulting in a high level of state intervention and the absence of the private sector in regional economic development for centuries. Thus, external forces and the role of the state initiated and promoted industrialization, while the ownership of local resources and the level of state intervention in Yunnan remained unchanged. Overall, then, we can observe the early form of the business system and the state-led and highly resource-dependent development trajectory in Yunnan.

This state-led and resource-dependent development path has been intensified since the foundation of P.R. China in 1949. The national heavy industry-oriented development strategy was mirrored by the local industrial structure and industrial path in Yunnan. Moreover, the socialist transformation had largely consolidated the position of the state sector in the local economy. From 1949 to 1978, with the implementation of the central government's policies and investment, Yunnan's dominant industrial and institutional features — the strong state sector, and the dominance of highly resource-dependent heavy industries — persisted and were substantially promoted. However, the long-standing institutional features and virtual absence of the private sector in Yunnan generated a high level of “institutional stickiness” in the regional development path, which became an institutional disadvantage manifest in a certain level of resistance to the institutional transition from a planned economy to a market economy.

In contrast to its drastic implementation of the socialist transformation of the private sector in the pre-reform period, after the central government had initiated the economic reform in 1979, it proceeded incrementally to carry out the radical fundamental transformation from a highly centralized planned economy to a market-oriented economy. Hence, in the transitional Chinese economy, state intervention and market forces, as well as the state-ownership based economy and private sector, coexist and play crucial roles in economic growth. As previously discussed, in the initial stage of reform, the market-oriented development strategy was controversial, and the development of the private sector faced political and ideological pressures. In this initial phase, Yunnan's local governments made attempts to solve the imbalance in the local industrial structure and conducted SOE reform.¹¹ However, due to the ideological and social pressures and risks, the lack of an existing private sector, and the strong impact of the pre-existing development path with its

high level of institutional stickiness, the local governments did not put more effort into supporting the emerging private sector in the initial stage of the reform.

It is interesting that for centuries, historical shocks did not bring about changes in the local industrial and institutional structure and configurations but rather enhanced and promoted the long-standing development path, thereby shaping a highly cohesive system in Yunnan. Yunnan has gone through regime and institutional changes from the feudal economy to a state monopoly economy, and then from a planned economy to a market-oriented economy. At every stage, institutional changes or historical shocks reinforced the institutional stickiness in Yunnan. This high level of institutional stickiness and the cohesive system led to a relatively high degree of resistance to market-oriented change and industrial path adjustment. In short, before 1992, the state sector continuously played the most important role in local economic development, while the private sector was absent. Local governments were highly involved in economic activities and played a determining role in supporting, guiding, or constraining economic activities. The state-led and highly resource-dependent development trajectory in Yunnan was maintained.

After 1992, however, the central government created a highly competitive environment for local governments to promote local economic development by implementing the unique decentralization reforms, namely the tax-sharing system and the M-form administrative system, and the rank-order tournament scheme. This competitive environment plays a crucial role in shaping local governments' behaviour. As tax competition tends to lead to homogeneity, the regional investment environment determines a region's ability to attract mobile capital. In Yunnan, the investment environment is built on the state-led institutional environment and is substantially influenced by the existing regional industrial path. Yunnan's economy has been dominated by the highly resource-dependent heavy industries with a vast input of technology, capital, and labour, and characterized by a high level of non-ownership coordination and long-term inter-firm relations, some of which are initiated by local governments, in the regional core industries. These features of local industrial structure and the relatively high level of local government intervention in coordinating economic activities result in a low marketization level and a low degree of mobility of market entry and exit, as well as a low degree of labour mobility. Moreover, as Yunnan province is located in the inland area of China, the logistics costs of entering the market are much higher than in the eastern area, which is one of the major disadvantages of the province. Hence, mobile capital may not be willing to choose the Yunnan market as its jurisdiction, which also explains the slow growth of the private sector in Yunnan. In short, the Yunnan market is in an unfavourable

position in competing for mobile capital. To survive in the highly competitive environment and address the need to raise local revenue, local governments tend to put more effort into supporting regional core industries and protecting local core firms.

Besides the relatively unattractive investment environment in inter-jurisdictional competition, the financial and political burdens of unemployment and welfare expenditure are major reasons for local governments to protect local core firms. SOEs and large private enterprises in the capital-, resource-, and labour-intensive heavy industries create a large number of job opportunities and also have responsibility for covering the expenditures of workers' welfare (Lin and Tan 1999: 429). Therefore, local governments actively support local core enterprises and protect them from bankruptcy. Moreover, Yunnan's local governments are willing to bail out inefficient or loss-making firms by providing financial support or requesting regional core firms to share their product distribution channels (buyers). Given the active involvement of the local government in economic activities and the protective role it plays, firms are keen to establish cooperative relationships with local governments and display a positive attitude towards the role of local government in enterprises' development.

Overall, inter-jurisdictional competition plays a crucial part in shaping the government's direct and indirect regulatory and supportive role and the highly collaborative and dependent state–business relationship in Yunnan. It can therefore be said that the highly competitive environment substantially underpins the state-led development trajectory and strengthens the path dependence in Yunnan.

However, given the poor economic performance of Yunnan and the soft budget constraint (i.e. local governments financially supporting and bailing out underperforming local firms), it seems clear that local government intervention and support do not ultimately contribute to extending or renewing the existing local industrial path or yielding good returns in the realms of inter-jurisdictional competition. On the contrary, Yunnan is locked into an inefficient, inferior path of development, and the feedback and economic outcomes of Yunnan are far from satisfactory. Due to the strength of regional path dependence, it is difficult for Yunnan to escape at the present stage.

As Grabher argues (1993a: 261), the common interest in keeping long-term inter-firm relations locks regional core firms and suppliers into a relatively close circle of exchange relations, which cause functional shortcomings. While maintaining the common interest, facilitating inter-firm cooperation, and reducing transaction costs,

neither regional core firms nor upstream firms will invest in R&D or undertake innovation activities on their own initiative, unless an unexpected situation occurs, such as the de-capacity policy that was implemented due to overinvestment in the real estate industry.¹² Also, although most of the heavy industry enterprises in Yunnan are manufacturing simple products, they have enormous investments in equipment, technology, facilities, and labour input. More importantly, firms in the production chain are highly technically interrelated. Thus, it is difficult for regional core firms and their suppliers in Yunnan to switch to alternative technologies due to the high technical conversion cost, as reported by sample firms during the research. Therefore, the strong and stable linkage between regional core firms and suppliers in Yunnan causes functional lock-in and ultimately results in technological lock-in.

Moreover, regional core SOEs undertake semi-political tasks to assist local governments in supporting unprofitable and loss-making SOEs to prevent them from going bankrupt, by building a long-term stable collaboration. These political tasks imply that to build a stable linkage with local governments would benefit enterprises in terms of having access to the production chain and maintaining long-term stable relations with local core firms. To survive in the competitive market, firms are keen to establish close relationships with local governments; this state-led inter-firm coordination strengthens the connections between firms and local governments, which entraps Yunnan into a process of political lock-in.

Arthur (1994: 118) argues that to escape from an inefficient, inferior development path depends on the degree of reversibility and transferability. As described above, the regional core firms in Yunnan are highly resource-dependent and capital- and labour-intensive, which signifies a low degree of reversibility of investment and transferability of technology. Hence, at least in the short term, it is difficult for Yunnan to de-lock from the negative functional, technological, and political lock-in processes.

This chapter has demonstrated that the market-oriented development trajectory in Zhejiang and the state-led development trajectory in Yunnan have persisted and even been enhanced. The strong impact of historical shocks and the pre-existing cohesive regional systems in Zhejiang and Yunnan since imperial times largely promoted and strengthened the local industrial structures and industrial paths and reinforced the behaviour of economic actors. Hence, in the initial stage of economic reform, faced with ideological and social pressures, Zhejiang local governments creatively extended and renewed the existing local development path by creating new forms of organizations, while Yunnan found itself confronting difficulties in

market-oriented change and industrial path adjustment due to a high level of institutional stickiness. After 1992, the highly competitive environment shaped by the unique decentralization reform and promotion system in China played a crucial role in shaping the role of local government and the state–business relationship in Zhejiang and Yunnan, further enhancing the market-led development trajectory in Zhejiang and underpinning the state-led development trajectory in Yunnan. The strong isomorphic power or institutional complementarities in a cohesive system persistently self-reinforce the existing distinctive features of local industrial and institutional structures. Therefore, the behaviour of firms and local governments has followed a specific logic, which conforms to the particular local cohesive system. External factors, such as exports and the impact of global markets, also amplify the regional differences and the distinctive regional business systems. Zhejiang and Yunnan find themselves on opposite paths, and their development trajectories are still diverging at the present stage of development in the transitional heterogeneous Chinese economy.

Notes

¹ The surplus labourers were from rural areas and “sent-down youth” from urban areas. “Sent-down youth” were educated urban students, who were sent to rural areas to eliminate the gap between urban and rural areas in 1960s, known as the “Up to the Mountains and Down to the Countryside Movement”. In late 1979, about 10 million urban educated “sent-down youth” returned to the cities

² Including central enterprises’ revenues and customs duties.

³ Including SOEs’ revenues, salt taxes, agricultural taxes, industrial and commercial income tax.

⁴ As well as the fiscal sharing schemes, the 1982 Constitution specified that “article 99 and 100: ... local people’s congress at and above the county level were allowed to adopt and issue local resolutions and regulations and approve, alter, annul and examine plans and the budgets of their respective administrative areas for local economic, social and cultural and public services’ development” (Mu et al. 2014).

⁵ Financial self-sufficiency rates = general budget revenues / general budget expenditures * 100%

⁶ Based on VAT generated within the local government’s territory.

⁷ The existence of county-level divisions (*xian*) can be traced back to 690 BC (Zhong 2003: 18). A two-tier administrative system was established by the Qin dynasty (221–206 BC), which

became the basic administrative structure in succeeding dynasties (Liu et al. 1999: 83, Zou 2001, Zhong 2003: 18, Zhao 2010: 46). In the Yuan dynasty (1279–1368) a four-tier administrative system was adopted, in which province-level divisions were set up as the first-level divisions and a new administrative system was formed in managing ethnic minority regions (Peng 1996, Zhu 2015). The Qing dynasty (1636–1912) set up 18 provinces based on a three-tier system (province–fu–county) (Zhong 2003: 22, Zhao 2010).

⁸ After the collapse of the Qing dynasty, the province–fu–county system was replaced by a province–dao–county administrative system in the mid-1910s, and a decade later, dao-level divisions were abolished and a new level of divisions — municipality (*shi*) — was established at the same administrative level as counties (Zhong 2003: 22, Zhao 2010). Hence, before 1949, there was a two-tier administrative system (province–county and municipality). In 1949, the central government decided to set up six “Great Administrative Areas”, namely North China, Northeast, East China, Central and South, Northwest and Southwest, as the first-level divisions in order to quickly restore order after the war (Hua 1998). When the economic and political situation became stable, this level of division was abolished (*ibid.*). The first version of the Constitution was issued in 1954 which provided a three-tier administrative system. The first-level divisions consisted of provinces, autonomous regions, and municipalities directly under the central authority, and the second-level administrative divisions were counties, autonomous counties, and municipalities, while townships and ethnic townships formed the third administrative level (National People’s Congress, Government of China 1954).

⁹ Notably, the earliest prefectural-level divisions, named the prefectural administrative regions (*xin zheng du cha qu*), were set up as quasi-administrative divisions of provincial governments to assist in supervising and coordinating the work of regions in 1932 (Wu and Chen 2008: 101). In the 1950s, the prefectural administrative regions were renamed “special regions” (*zhuan qu*), which were vested with governmental functions for oversight of the administration of counties and municipalities (Zhao 2010: 88). Although the prefectural-level divisions have been rearranged multiple times in terms of administrative functions, this level did not serve as independent local governments (Wu and Chen 2008: 101), until the central government entitled the executives of regional people’s congresses as regional authorities of state administration in 1978 (*ibid.*). In other words, prefecture-level divisions were officially established as second-level administrative divisions at that point.

¹⁰ In 1998, 211 prefecture-level cities administered 1,186 counties, accounting for 56% of the total number of counties; by the end of 2001, 253 out of 265 prefecture-level cities managed 1,445 counties, representing 70% of the total number of counties (Tang 2008: 57–59).

¹¹ The Yunnan local government prioritized: (a) addressing the imbalance in the growth of heavy industry and light industry by slowing down the development of heavy industry and increasing investment in light industry and the agriculture sector; and (b) conducting SOE reform, including converting military enterprises into civilian SOEs.

¹² Overinvestment in the real estate industry meant that enormous amounts of investment had poured into the construction industry, rapidly increasing demand for steel, cement, and other building materials. Thus, steel making and other related heavy industries including coal mining and coking, saw high levels of investment, which resulted in severe problems of overcapacity. In this context, the central government implemented a de-capacity policy, which required firms to reduce their output. The consequences of the policy were felt instantly, with a sharp decline of the market price of steel and other related products, which compelled heavy industry enterprises — especially the firms downstream in the production chain — to look for new opportunities or to develop new technologies or new products. Based on my survey results, from 2015 onwards medium and large-sized heavy industrial enterprises have become active in technical cooperation and R&D activities with other SOEs, research institutions, and universities. Interestingly, firms actively pursue innovation in the search for an alternative path to recoup losses, on the one hand; but on the other hand, enterprises also reported inadequate funds for new investment. In the short-term, heavy industry enterprises in Yunnan cannot escape from the technological lock-in process.

7

Conclusions and New Research Agenda

This chapter sums up the research objectives, the empirical findings on the research questions, their theoretical implications and contribution to theory, as well as the new research agenda. The chapter consists of four sections. Section 7.1 provides a presentation of the research objectives and research findings; section 7.2 answers the research questions. Section 7.3 then gives discusses the theoretical implications and contributions, and section 7.4 proposes some elements for a new research agenda.

7.1 Research objectives and findings

7.1.1 The research objectives

Significant uneven regional development and a great diversity of economic and institutional patterns are typical of the transitional Chinese economy. The implementation of the economic reform since 1979 has widened regional divergence in this heterogeneous economy.

As the neoclassical perspective substantially ignores the role of institutions in shaping the economic system and cannot specify how paths are formed and evolve, or how the role of economic actors changes over time (see e.g., Samuels 1984, Granovetter 1985, Bardhan 1987, Hodgson 1998), business systems theory and evolutionary theory have been applied in this thesis to understand and compare distinctive and evolving regional development trajectories in the transitional Chinese economy and the changing role of economic actors and institutions in the regional business systems.

The objective of this research was to study the changing roles of local governments in influencing the dynamic regional business systems in the transitional, heterogeneous Chinese economy. The dynamic regional business system consists of three blocks: enterprise sector block, including SOEs and domestic private enterprises, state sector block, and state–business block. To conduct the research,

Zhejiang and Yunnan were selected as two contrasting cases to reflect significant regional differences based on theoretical replication logic for predicting contrasting results.

7.1.2 The empirical findings

The existing business systems in Zhejiang and Yunnan

The findings reveal a statistically significant institutional variation between Zhejiang and Yunnan and relatively high regional institutional complementarities in implementing the market-oriented national strategy within each region. Two distinctive cohesive regional business systems have taken root and evolved in Zhejiang and Yunnan.

The regional industrial path partially reflects the local natural resource base, especially in a region with rich natural resources, like Yunnan, which has established a heavily resource-based industrial structure. Large-sized enterprises, especially SOEs, in highly resource-dependent and capital-intensive industries predominate in the Yunnan economy. Compared with Yunnan, Zhejiang is less dependent on local natural resources. As the “birthplace of the private economy” in China, Zhejiang has established an industrial structure dominated by low-tech, low-cost, and private family-based light industries.

The distinctive dominant features of regional industrial structures are closely related to regional ownership and employment relations, inter-firm relations, the level of mobility, and marketization of the local market. Highly concentrated ownership and involvement in the family business and a high level of flexibility typify the family-based enterprises in Zhejiang, resulting in a relatively high degree of labour mobility. Zhejiang private enterprises, including large firms and SMEs, form specialized and mature production networks and tend to maintain informal long-term commitments. With a strong private sector and a high level of mobility of firms, the Zhejiang business system is characterized by a high level of marketization. The existing Zhejiang business system is built on a market-led institutional environment in which the local government plays a regulatory and service-oriented role from a distance, and economic actors coordinate their activities mainly through the competitive market arrangement.

Although nearly all the SOEs in Yunnan have converted to joint-stock enterprises, the local authorities remain in control of SOEs with a high degree of concentration of ownership and high involvement in enterprises’ management, which

results in a relatively low degree of labour mobility in SOEs. Due to the vast input of technology, capital, and labour, and the inflexibility of resource-dependent firms in the market, firms in regional core industries, especially large private enterprises and SOEs, tend to maintain long-term partnerships with other regional core firms to reduce the risk of market volatility. In other words, Yunnan firms show a considerably lower degree of mobility and a high level of inter-firm coordination. More importantly, the state plays a determining role in supporting, guiding, and initiating economic activities, especially among regional core firms, which assist local governments in supporting unprofitable and loss-making SOEs to prevent them from going bankrupt. Hence, the existing Yunnan business system is built on a state-led institutional environment, in which the state strategically coordinates economic activities, directly or indirectly.

As the restrictions around market access have been greatly reduced and simplified nationally, there is no institutional difference in market-entry policies for startups in Zhejiang and Yunnan.¹ Moreover, the vocational education system and the role and function of trade unions and intermediary associations are almost identical throughout China, and have little impact on regional economic development.

Because the financial system and the banking system in China are highly concentrated and regulated, and primarily serve the needs of SOEs, private enterprises, especially SMEs, have virtually no access to bank loans and the capital market. Except for a few listed SOEs in Yunnan, enterprises in Zhejiang and Yunnan do not access to the capital market and instead rely heavily on credit-based sources of financing.² Therefore, in the state-led institutional context, highly resource-dependent and capital- and labour-intensive firms in Yunnan are sensitive to policy changes and keen to establish and maintain cooperative relationships with local governments for their firms' development. However, in the market-led institutional environment, Zhejiang firms are less dependent on local governments to support their business.

The behaviour of economic actors (firms and local governments) in Zhejiang and Yunnan thus fit the particular regional institutional environment (i.e. the market-led and state-led institutional context in Zhejiang and Yunnan respectively). Hence, the cases of Zhejiang and Yunnan confirm that the regional isomorphic power of dominant institutions reinforces the tendency to form a cohesive economic system within the region. In the heterogeneity which typifies the transitional Chinese economy, a relatively high degree of regional institutional complementarity is present in the business systems of both Zhejiang and Yunnan.

Overall, this research has identified a market-led business system in Zhejiang, and a state-led business system in Yunnan, which show significant statistical and institutional differences and a high degree of institutional complementarities in the local cohesive system.

The historical development trajectory in Zhejiang and Yunnan

This research adopted a dynamic perspective. To understand the evolving development trajectories and the changing role of economic actors in Zhejiang and Yunnan in the heterogeneous transitional economy, the historical developmental paths in Zhejiang and Yunnan are presented in Chapters 5 and 6. The economic reform that began in 1979 marked a turning point in the Chinese economic development trajectory. Hence, the evolving economic and institutional structures and configurations before and after economic reform at both central level and local level were studied to understand what determined the predominant features of the existing business systems, how and why particular development trajectories were shaped, and continue to be shaped, and what the changing role of local governments has been in local economic development in the Chinese transitional economy.

- The historical developmental path of Zhejiang and Yunnan (before 1949)
A poor resource base characterizes the existing Zhejiang business system, but from the 10th to the 13th centuries, Zhejiang was one of the major grain producers and suppliers of imperial China (Yang 1993, Ji and Wang 2014). Due to increased productivity and the surplus output of grains, the agricultural population started switching to commercial crops (i.e. silk and cotton farming) (Yang 1993, Ji and Wang 2014). Since the mid-14th century, stagnant agricultural technology, rapid population growth, and the lack of spare arable land for expansion generated labour surplus. These workers were spurred to shift from farm work to manufacturing and commerce. The rapid expansion in commerce led to the increase of the merchant class, which challenged the foundation of feudal social orders, meaning that market-based relations gradually supplanted feudal relations in Zhejiang during the imperial period. Hence, Zhejiang's development trajectory in the imperial period showed a typical process of market-oriented transition from a feudal agrarian society to the path towards proto-industrialization and capitalism.

The inflows of FDI and advanced technology in the mid-18th century, as exogenous forces, were significant factors in driving forward the transition in Zhejiang

when local industries experienced stagnation. At the same time, the local merchants showed a strong willingness to adopt new technologies and methods of production, and a high level of flexibility and adaptability, which marked a new stage in the transition towards large-scale mechanized manufacturing. The adoption of new technologies and new forms of organization substantially extended and renewed the existing local development path and also created new paths by adopting modern mechanized production methods. By virtue of exogenous forces, the market-oriented trajectory towards modern manufacturing and capitalism since the late Song period in Zhejiang had been enhanced and promoted.

Overall, the research shows that an early form of market-oriented development trajectory existed in Zhejiang long before the establishment of P.R. China, characterized by dominant family-based textile and handicraft industries, relatively high levels of horizontal diversification, and a strong informal financial system (i.e. private banks).

Since the late 13th century, Yunnan's economy has been characterized by highly resource-dependent and capital-intensive industries due to the region's rich natural resource base. Four historical events pushed Yunnan onto the path to industrialization and modernization from the 13th to the mid-20th century. Without exogenous forces and the role of the state, it is likely that Yunnan would not have been able to initiate the process towards industrialization and expand its market. With the inflows of new technologies and advanced machinery, capital naturally gravitates towards local core industries. In the case of Yunnan, this meant that the existing regional industrial structures were enhanced and promoted, and the local development path was strengthened and invigorated by new technologies and new forms of organization, creating a new path characterized by modern mechanized production methods.

The imperial state and local ruling parties directly controlled the ownership of core resource-dependent industries, including mining and smelting and the tobacco industry. For an extended period, up to 1949, state-owned enterprises absolutely dominated the Yunnan economy, which resulted in a strong state sector and the absence of the private sector in local economic development over the course of centuries. Hence, a high level of state intervention in local resources and economic activities and a strong state sector can be observed in a region with a rich resource base. The development trajectory of Yunnan before 1949 was built on a state-led institutional context. In other words, predominant industrial and institutional features of the existing state-led business system in Yunnan (i.e. the strong state sector, the dominance of highly resource-dependent heavy industries, and the long-term

absence of the private sector) can be identified long before the establishment of P.R. China.

Before 1949, both Zhejiang and Yunnan completed the transition from the feudal economy to the path towards modern manufacturing systems. However, the processes of industrialization in the two provinces showed huge regional differences. Zhejiang and Yunnan have been on very different development trajectories since the imperial period. In both cases, exogenous forces played an essential role in the transition process, bringing about significant changes in technology and production methods and greatly enhancing and promoting the existing local development path. Hence, the outcome of the transition process was not a trend of convergence towards a homogeneous type over time; rather, the distinctive regional development trajectories were strengthened.

Internal factors, such as the regional resources base (especially in Yunnan), industrial structure, and the strength of state intervention in local economic activities (the role of the state), and external factors, such as cultural factors, exogenous forces like the inflows of FDI, new technologies, and migration, reinforced the tendency to shape a relatively cohesive system at the regional level, even in the feudal economy.

- The historical developmental path of Zhejiang and Yunnan (1949–1978)
After the establishment of P.R. China, the adoption of a highly centralized and unified economic system, the implementation of a heavy industry-oriented development strategy, and the socialist transformation came together to form a monotonic type of development trajectory in China, which left no room for the private sector and very little room for local governments to promote regional economic development. As a result, Zhejiang had to deviate entirely from the market-oriented development trajectory shaped before 1949. In contrast, Yunnan's state-led development trajectory was utterly consistent with the national development strategy so that Yunnan's developmental path was maintained and even substantially enhanced after 1949.

Nevertheless, the implementation of the monotonic type of development trajectory at the national level did not bring about the convergence towards a homogeneous and monotonic type in Zhejiang and Yunnan. In contrast, the regional differences between Zhejiang and Yunnan persisted. In the highly centralized and unified planned economy, the regional resource base played a determining role for

the central government in formulating the regional development trajectories, which also determined the role of a region in the national development strategy.

Because of its location and geographic constraints (i.e. low mineral and metal reserves), Zhejiang province was marginalized in the state's heavy industry-oriented development strategy and received very little central government investment, which resulted in the slow growth of the state sector and the stagnation of the local economy during the pre-reform period. In contrast, Yunnan had been selected as part of "the Third Front Movement" and received direct investment from the central government because of its location and rich resource base. With central government investment, Yunnan's principal industrial and institutional features — the strong state sector and the dominant highly resource-dependent heavy industries — were further entrenched. Hence, even though the central government adopted a highly unified system and implemented the monotonic type of development trajectory, regional differences persisted.

To sum up, although institutionally both Zhejiang and Yunnan had completed the socialist transformation and participated in the national development plans, the development trajectories in the two provinces showed huge regional differences. The regional industrial structure and the implementation of the national development strategy at the local level had to take account of the local natural resource base and geographical location. Hence, the institutional changes did not bring about the trend of convergence towards a monotonic type over time. The path of development in Yunnan during the pre-reform period showed a high degree of consistency with the pre-existing industrial path and institutional structure, while the development of the state sector in Zhejiang remained relatively slow.

- The development trajectories of Zhejiang and Yunnan in the economic reform (1979–present)

Having experienced the severe economic recession caused by the over-centralized economic system and the radical and overambitious political and economic campaign during the pre-reform period, the central government initiated the economic reform in 1979 to devolve actual decision-making power to enterprises and local governments, to bring in the market mechanism, and to provide incentives to sub-national authorities and enterprises. However, before 1992, China was still trapped in the "capitalism or socialism" ideological dilemma, and the development of the private sector had to confront political, ideological, and social pressures.

In the initial stage of the reform, Zhejiang local governments and firms reacted extremely quickly to the changes in the central government's attitude to the private

sector. The effect of historical shocks and the pre-existing cohesive system in Zhejiang dating back to the imperial period had a long-lasting effect on economic actors' behaviour. The developmental path and business culture were proven to be deeply rooted in Zhejiang. Hence, Zhejiang's local firms and local governments showed a high level of flexibility and capacity for institutional innovation. New forms of organization (such as the "red hat enterprises" and the "one region, one firm, all families affiliated" model) were created to defuse institutional pressures, reduce political risks, and remove obstacles for the emerging private sector, greatly enhancing the market-led development trajectory in Zhejiang. In contrast, due to the ideological and social pressures, the long-term absence of the private sector, and the effect of the pre-existing development path with its high degree of institutional stickiness, local governments and firms in Yunnan did not put a lot of effort into supporting the emerging private sector, and the existing development path in Yunnan became further entrenched.

After the ideological debate was brought to an end in 1992, the central government created a more relaxed political environment to carry out the market-oriented reform and delegated more decision-making and financial powers to local governments. To fully understand why local governments in China have demonstrated a relatively strong enthusiasm for promoting local economic development, two main factors were highlighted in the research: (a) the incentives provided by the decentralization reform; and (b) the Chinese cadre management and promotion system.

The fiscal decentralization reform delegated greater autonomy and space to local governments in regional development, while the Chinese cadre management and rank-order tournament promotion systems, which are based on comparative performance and ordinal position-based rank-order incentive schemes, provide strong incentives for leading cadres in each region to devote themselves to promoting regional economic development and competing for promotion. Hence, in spite of all the changes in the fiscal arrangement, local authorities remain enthusiastic in promoting regional economic growth so as to raise local revenue, which significantly intensifies the competition between local governments (i.e. attracting mobile capital, investing in infrastructure construction, supporting R&D activities, business-state collaboration, etc.). Hence, the unique decentralization reform and the rank-order tournament scheme provide a highly competitive environment for local governments to raise local revenue, which shapes their behaviour in regional development and moulds the development trajectory of the local economy.

The highly competitive environment shaped by the unique decentralization reform and promotion system in China impelled Zhejiang's local governments to change their way of regulating economic actors and to play a regulatory and service-oriented role from a distance, in the context of the high marketization level and the high degree of mobility in the local market. In the highly marketized local investment environment, enterprises in Zhejiang show less dependence on local governments to support their business. Besides, as the target market of private enterprises in Zhejiang has gradually shifted from the domestic market to the global market, firms are growing ever-less dependent on the domestic market and local governments. Therefore, the highly competitive environment and the influence of the global market reinforce and strengthen the market-led development trajectory in Zhejiang.

However, due to its low marketization level, the low degree of mobility, and the high logistics costs, the Yunnan market is in an unfavourable position in competing for mobile capital. In order to survive in the highly competitive environment, local governments tend to put more effort into supporting regional core industries and protecting local core firms, thus shaping the direct and indirect regulatory and supportive role of Yunnan local governments. As Yunnan local governments have been actively involved in economic activities and have played a protective role, firms are keen to establish cooperative relationships with local governments and show a positive attitude towards the role of local government in enterprise development. Therefore, the highly competitive environment underpins the state-led development trajectory and strengthens path dependence in Yunnan.

Since the start of economic reform in 1979, local governments and enterprises in Zhejiang and Yunnan have reacted differently to the marketization reform. The highly competitive environment shaped by the unique decentralization reform and promotion system in China plays a crucial part in shaping the role of local government and the state-business relationship in Zhejiang and Yunnan. The market-oriented reform has not brought about any deviation from the pre-existing regional industrial path and institutional structures in Zhejiang and Yunnan but rather has enhanced and amplified the distinctive local development trajectories in the transitional heterogeneous Chinese economy.

7.2 Research questions

7.2.1 What are the existing regional business systems in Zhejiang and Yunnan?

The research has identified a market-led business system in Zhejiang, and a state-led business system in Yunnan, which show a high level of institutional complementarities.

What are the dominant economic and institutional features in the two regional business systems?

The dominant economic and institutional features in the two business systems are summarized in Figure 7.1 below (local government is abbreviated to LG).

What are the coordination mechanisms among economic actors and institutions?

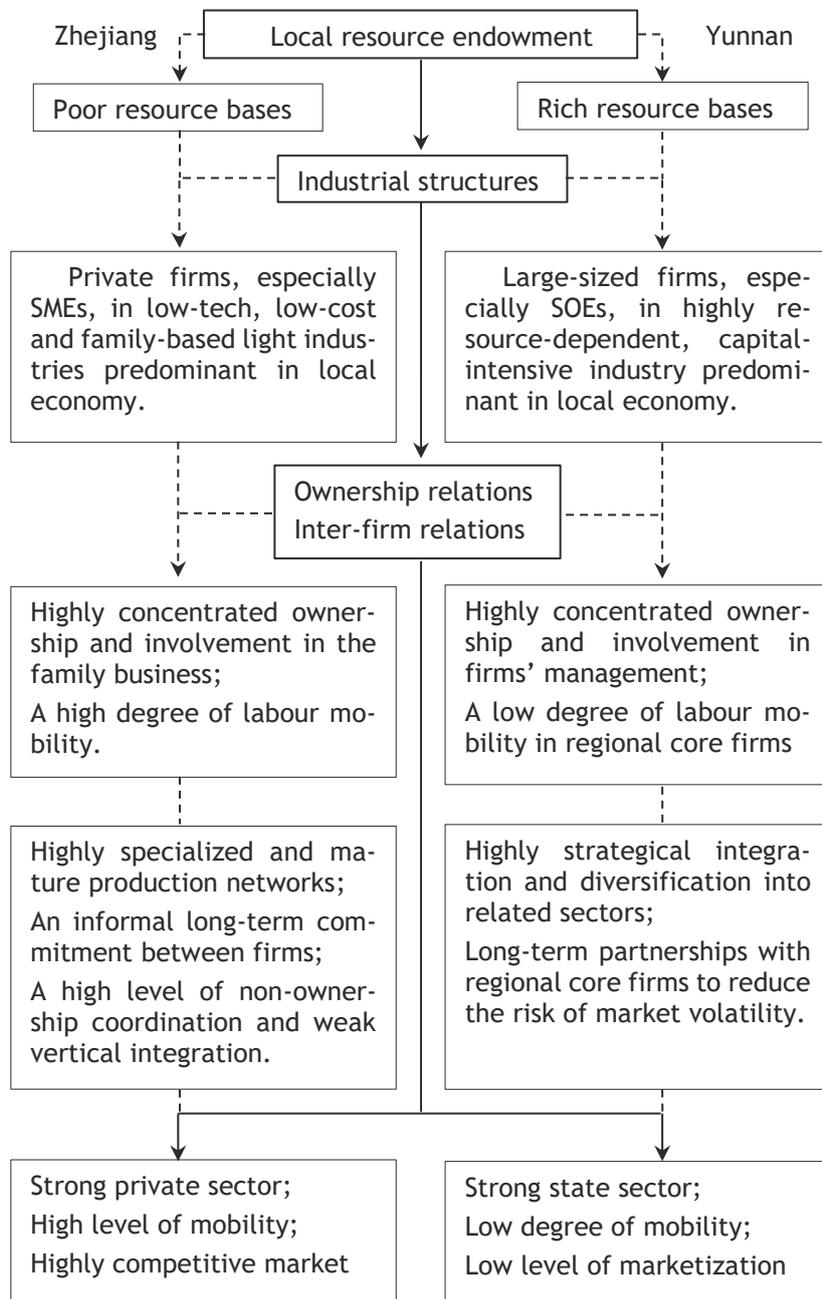
The existing Zhejiang business system is built on a market-led institutional environment, in which local governments play a regulatory and service-oriented role from a distance, and economic actors coordinate their activities mainly through competitive market arrangements. The existing Yunnan business system is built on a state-led institutional environment, in which the state strategically coordinates economic activities, directly or indirectly.

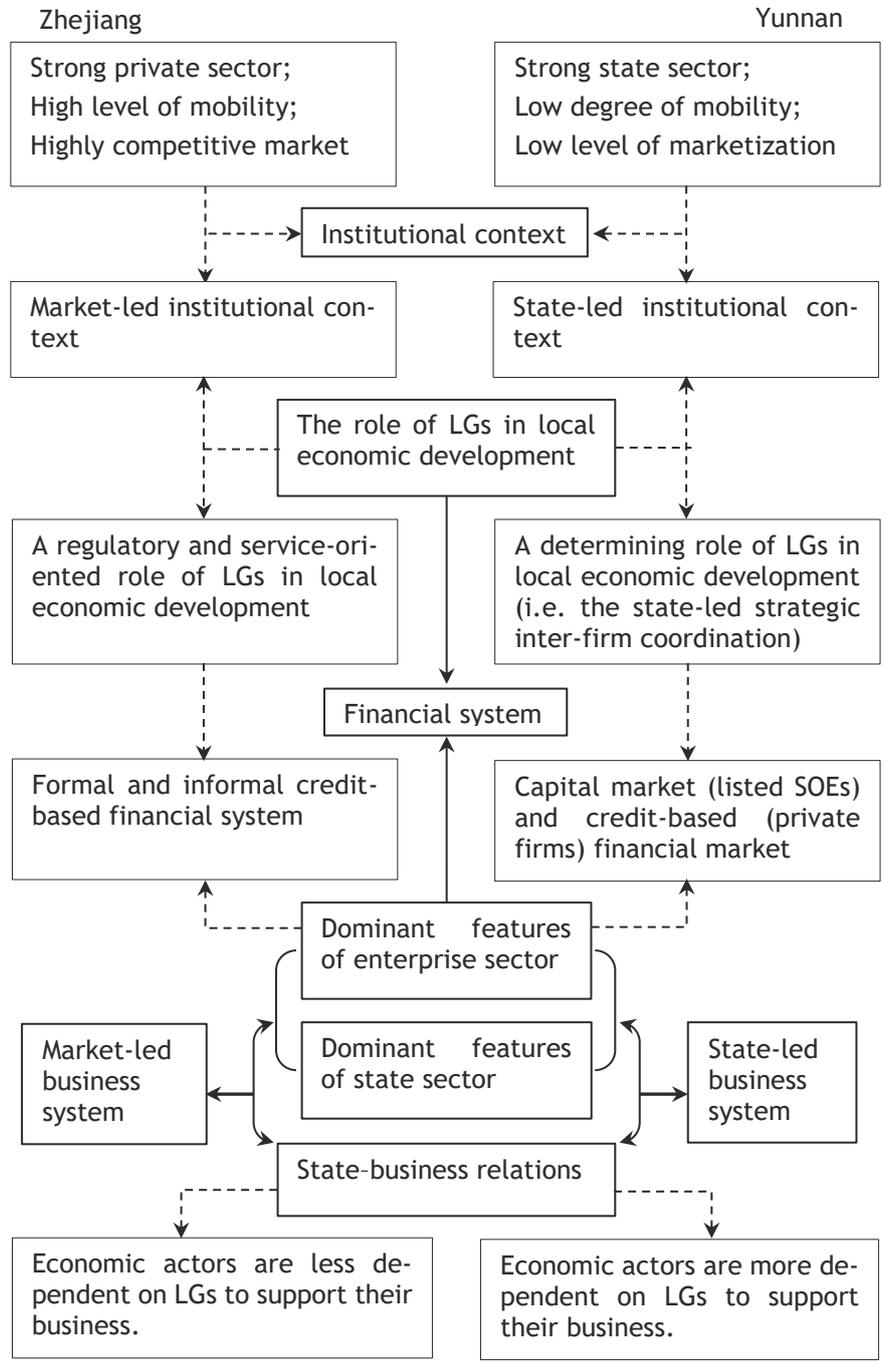
What institutional economic factors determine the dominant features and coordination mechanisms of the existing business systems?

The factors determining the dominant features and coordination mechanisms of the existing business systems are shown in Figure 7.1 below (local government is abbreviated to LG).

Figure 7.1

The relationships and connections between the dominant features in Zhejiang and Yunnan business systems





7.2.2 How and why have specific business systems and regional economic development trajectories been formed and evolved over time in Zhejiang and Yunnan?

The process by which the development trajectories in Zhejiang and Yunnan have formed and evolved from the imperial period to the present has been summarized in section 7.1.2. Why particular types of business systems have been formed and evolved will be answered in the following sub-questions.

What institutional economic factors determine the historical development trajectories (before 1979)?

As summarized in the previous section, internal factors, including regional resources base (especially in Yunnan) and geographical location, industrial structure, and the strength of state intervention in local economic activities (the role of the state), as well as external factors, such as cultural factors, and exogenous forces including the inflow of FDI and new technologies, and migration, mutually shaped the historical development trajectories in Zhejiang and Yunnan, so that regional differences persisted even in the highly unified and centralized planned economy.

What institutional economic factors determine the regional divergence in the transitional economy (1979 to present)?

Similar factors to those listed for the earlier period, both internal factors, such as regional resources base (especially in Yunnan) and geographical location, industrial structure, and the strength of state intervention in local economic activities (the role of the state), and external factors, including cultural factors (business culture) and exogenous forces like the global market, also shaped the development trajectories in Zhejiang and Yunnan in this period.

At the same time, the impact of pre-existing regional economic, industrial, and institutional arrangements has led to strong path dependence and long-term institutional complementarities in both Zhejiang and Yunnan, thus intensifying the regional divergence.

Moreover, the unique decentralization reform in China and the incentive mechanisms for local cadres shape a highly competitive environment for local governments competing to raise local revenue. This highly competitive environment plays a crucial part in shaping the role of local government and the state–business relationship and in strengthening the local industrial development path in the two regions. The regional differences between Zhejiang and Yunnan have persisted and been enhanced.

Do the regional resource bases, the regional pre-existing economic, industrial, and institutional arrangements matter?

The regional resource bases (especially in regions with rich natural resources), the regional pre-existing economic, industrial, and institutional arrangements do matter: they play a crucial role in shaping the particular type of business systems and have also resulted in strong path dependence in both Zhejiang and Yunnan.

7.2.3 How has the role of local governments evolved in the transitional economy?

The role of Zhejiang's local governments has clearly changed in the transitional economy. At the initial stage of reform, the development of the private sector faced political, ideological, and social pressures. To safeguard and promote the emerging private sector, local governments activity provided political protection and supported the development of the private sector. Since the imperial period, the state sector in Yunnan has played the pre-eminent role in local economic development, while the private sector remained virtually absent. Yunnan's local governments have been highly involved in economic activities and have played a determining role in supporting, guiding, or constraining economic activities.

After the ideological debate was brought to an end in 1992, the central government created a more relaxed political environment to carry out the market-oriented reform. The implementation of the decentralization reform and promotion system created a highly competitive environment for local governments to promote local economic development, which has greatly influenced the behaviour of local governments. Due to the high degree of competitiveness, mobility, and fluidity of market entry and exit in Zhejiang, it is risky for local governments to invest in firms directly. Hence, to attract investment in the highly competitive environment, Zhejiang's local governments have gradually shifted to playing a service-oriented role from a distance to create a positive investment environment. Compared with Zhejiang, the Yunnan market is in an unfavourable position in competing for mobile capital. To survive in the highly competitive environment, local governments therefore tend to put more effort into supporting regional core industries and protecting local core firms.

Hence, after 1992, the highly competitive environment substantially strengthened the market-oriented behaviour of local governments in Zhejiang and the level

of state intervention in Yunnan. The role of local governments has largely enhanced the market-led development trajectory in Zhejiang and the state-led development trajectory in Yunnan.

7.2.4 Will regional differences and the distinctive regional development trajectories in Zhejiang and Yunnan converge or diverge over time?

This research has indicated that the market-oriented development trajectory in Zhejiang and the state-led development trajectory in Yunnan were formed in the imperial period. After 1992, the highly competitive environment shaped by the unique decentralization reform and promotion system in China substantially strengthened the development trajectories in both Zhejiang and Yunnan. The behaviour of firms and local governments has followed a specific logic that substantially conforms to the regional resource base, industrial structure, regional economic and institutional environment in each case. The strong isomorphic power in both Zhejiang and Yunnan resulted in the persistence of industrial and institutional configurations in the transitional heterogeneous Chinese economy. Compared to Zhejiang, Yunnan has a relatively high level of resistance to change due to its strong state sector, the continuing absence of the private sector, institutional stickiness, and highly resource-dependent core industries. Hence, at the present stage, the development paths of Zhejiang and Yunnan are pointing in opposite directions and it seems most likely that their development trajectories will diverge rather than converge.

Notably, both internal and external factors, especially the highly competitive environment shaped by the decentralization reform and promotion system, have reinforced these highly cohesive regional business systems and generated a relatively strong path dependence in regional development trajectories. However, the regional development trajectories are not as harmonious or deterministic as they may appear. The industrial paths in both Zhejiang and Yunnan show a certain level of functional and technological lock-in. As labour-intensive and low-tech manufacturing industries start shifting to inner China or Southern Asian countries, firms in Zhejiang, which are embedded in global value chains, will gradually lose their advantages and confront some serious challenges. The steel-making industries in Yunnan have experienced overcapacity problems, and the global push towards cleaner fuels also challenges the coal industry. In both Zhejiang and Yunnan, industrial upgrading and generating novelty in the industrial regions are potential solutions for coping with external forces or influences, such as the global market.

7.3 Theoretical implications and contributions

7.3.1 Theoretical implications

The empirical findings discussed above show the evolutionary development trajectories of the regional business systems in Zhejiang and Yunnan. Table 7.1 presents the set of indicators discussed and charts the shifts in each indicator from the imperial period to the present.

Table 7.1
The change of indicators in the evolution of regional business systems in Zhejiang and Yunnan

<i>Industrial structure</i>		<i>Before 1949</i>	<i>1949-1978</i>	<i>1979-present</i>
Natural resource base	Zhejiang	Stagnant	Poor	Poor
	Yunnan	Rich	Rich	Rich
Predominant type of industries and firms	Zhejiang	Family-based textile and handicraft industries	Socialism transformation	Low-tech, low-cost and private family-based SMEs in light industries
	Yunnan	Highly resource-dependent imperial and military state-owned firms in heavy industries	Highly resource-dependent SOEs in heavy industries	Highly resource-dependent, capital-intensive large firms/SOEs in heavy industries
<i>Enterprise sector block</i>		<i>Before 1949</i>	<i>1949-1978</i>	<i>1979-present</i>
Owner control	Zhejiang	Direct	Direct (state-owned and controlled)	Direct
	Yunnan	Direct (imperial and military state-owned and controlled)	Direct (state-owned and controlled)	Indirect
Ownership-based integration and diversification	Zhejiang	High horizontal diversification	State-led	High (large firms) Low (SMEs)
	Yunnan	Imperial and military state-led	State-led	High (SOEs) Low (SMEs)
Non-ownership coordination	Zhejiang	Some	State-led	High
	Yunnan	Imperial and military state-led	State-led	High

Employment relations	Zhejiang	Some	Seniority-based promotion and low mobility	Weak commitments and high mobility
	Yunnan	Limited	Seniority-based promotion and low mobility	Seniority-based promotion and low mobility
State block	sector	<i>Before 1949</i>	<i>1949-1978</i>	<i>1979-present</i>
Strength of state	Zhejiang	Low	High	Supportive from a distance
	Yunnan	High	High	Supportive
Strength of market regulation	Zhejiang	Some	High	From high to low
	Yunnan	Imperial and military state-led	High	From high to low
Financial system	Zhejiang	Strong informal financial system	Highly regulated, credit-based	Formal and informal credit-based
	Yunnan	Highly regulated by imperial and military state	Highly regulated, credit-based	Capital market (listed SOEs) and credit-based (private firms and SOEs)
Skill development	Zhejiang	N/A	Low	Low
	Yunnan	N/A	Low	Low
Union strength	Zhejiang	N/A	Enterprise-based and defined	Enterprise-based and defined
	Yunnan	N/A	Enterprise-based and defined	Enterprise-based and defined
State-business relations		<i>Before 1949</i>	<i>1949-1978</i>	<i>1979-present</i>
Business-governments collaboration	Zhejiang	Low	N/A	Low
	Yunnan	Some	N/A	High
Strength of intermediaries	Zhejiang	Strong merchant group	N/A	Weak
	Yunnan	Weak	N/A	Weak
The dependence of firms on local governments	Zhejiang	Low	High	Low
	Yunnan	High	High	High

The changes in the indicators shown in Table 7.1 paint a clear picture. With the exception of indicators for Zhejiang during the period of the planned economy (1949–1978), the development paths of Zhejiang and Yunnan have been largely consistent with the pre-existing market-led Zhejiang business system and state-led Yunnan business system. The radical institutional changes from the feudal agrarian economy to proto-industrialization, then to the planned economy, and finally to the market-oriented economy have not brought about the trend towards convergence of a homogeneous type of regional development trajectory in Zhejiang and Yunnan,

but have enhanced and promoted the distinctive regional development trajectory in each province. Table 7.1 shows that in the period of the planned economy (1949–1978), the indicators for Zhejiang and Yunnan are identical. However, the indicators for Zhejiang before 1949 and after 1979 exhibit a relatively high degree of similarity. At the same time, the indicators for Yunnan demonstrate a high degree of consistency from pre-1949 right through to the present. The planned economy period can thus be considered a temporary interruption or repression of Zhejiang’s market-led development trajectory, while the developmental pattern, industrial path, and predominant industrial and institutional structures of both Zhejiang and Yunnan have endured.

In the pre-reform period, the highly unified and centralized economic system led to an institutional homogenizing process within regional development as the socialist transformation resulted in a monotonic type of development trajectory in China, which left no room for the private sector and very little room for local governments to promote regional economic development. Under such a monotonic system, regional development potential that derived from a distinctive local industrial path and institutional configurations could not be realized, especially in Zhejiang. Hence, the pre-existing market-led development trajectory largely stagnated. In contrast, the development trajectory of regions with rich resources, resource-dependent industries and strong state sectors — which fitted the centralized pre-reform system — were substantially enhanced, as in the case of Yunnan. However, due to the severe nationwide economic recession caused by the over-centralized economic system and the overambitious political and economic campaign, the strengthening of this pre-existing industrial and institutional structure did not lead to regional economic growth and resulted in strong institutional stickiness.

We can thus say that, although the highly unified and centralized economic system led to an institutional homogenizing process in regional development, the radical institutional changes did not smooth out the unevenness of the regional economy. More importantly, although there were several attempts at decentralization during this period, the role of local governments was seriously restricted, and no incentive mechanisms were provided for local governments to promote regional development. Overall, the role of local governments during the pre-reform period was to passively accept and execute tasks from higher-level authorities.

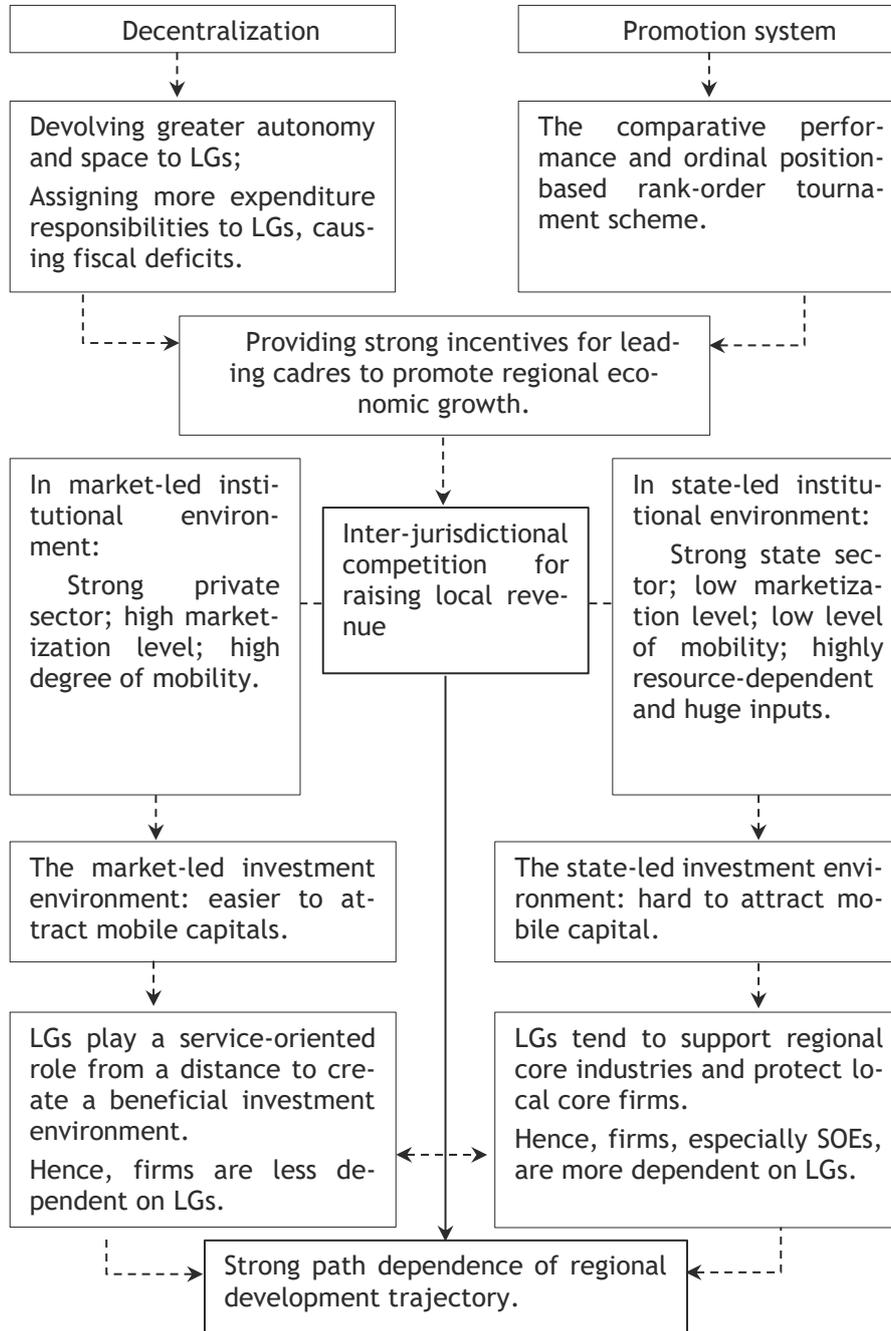
The institutional “homogenization” of regional development during the pre-reform period was derived from institutional and political forces shaped by the highly unified national policies. Thus, when the political and institutional forces of

homogenization were replaced by market forces after the start of economic reform, the institutional environment changed, providing room and incentives for local governments to pursue their developmental path, especially through the implementation of decentralization and the promotion system.

The incentive mechanism created by the decentralization reform and promotion system (the highly competitive environment for local governments) is one of the most important driving forces in shaping the role of local governments and the existing regional development trajectories. In the case of the two studied provinces, it enhanced the strong path dependence in the two regions and contributed significantly to the divergence of regional business systems in China. Figure 7.2 shows how the unique decentralization pattern and incentive system (promotion system) play out in market-led and state-led institutional environments, and how they shape regional development trajectories and the behaviour of economic actors (local government is abbreviated to LG).

Figure 7.2

The role of decentralization and the promotion system in regional economic development



As Figure 7.2 indicates, the central government devolves greater autonomy and space for local governments. More specifically, with the implementation of the M-form administrative system and fiscal decentralization, local governments become semi-autonomous and financially self-sufficient. The incentive system (the rank-order tournament promotion system) links GRP growth to the leading cadres' promotion opportunities. Together, the promotion system and decentralization reform create a highly competitive environment for local governments to raise local revenues so as to promote the local economy. The intensive inter-jurisdictional competition substantially shapes the behaviour of local government officials. On the one hand, they actively devote themselves to promoting the local economy, which depends on the existing economic and institutional structure. On the other hand, they become risk-averse and short term-oriented, meaning that local governments tend to reject radical changes and long-term projects in the highly competitive environment and focus instead on promoting existing regional core industries and seizing existing opportunities. Hence, the competitive environment shaped by the unique decentralization reform and promotion system substantially underpins the role of the state in local industrial and institutional structures and the state-led development path, and thereby increases regional disparities.

As defined by North (1990: 98), path dependence is a process which “narrows the choice set and links the decision-making through time”. At the moment that a particular irreversible institutional arrangement is selected from the choice set, in which multiple alternatives are still available, the choice set is permanently narrowed. Once the path has been chosen, a particular type of actions or behaviour patterns will be shaped by self-reinforcing mechanisms.

The path dependence in the industrial paths and development trajectories in the two regions is the consequence of a “natural selection” in the highly competitive environment for raising local revenue, which is shaped by decentralization and the incentive system. Economic actors (local governments and firms) in market-led and state-led institutional environments behave differently in the inter-jurisdictional competition.

Zhejiang had experienced a “natural” process of market-oriented transition since the imperial period and has a significant historical legacy underpinning its business culture. Hence, economic actors in Zhejiang exhibited high levels of adaptability in the marketization reform. More importantly, local governments in Zhejiang showed themselves to be very capable of innovation in protecting and supporting the emerging private sector and the market-oriented development trajectory. Hence, compared with Yunnan, the market-led institutional environment

gave Zhejiang a much wider choice set for both firms and local governments in the context of inter-jurisdictional competition. Given the high degree of mobility in the local market, local governments in Zhejiang play a service-oriented role from a distance to create a beneficial investment environment, which shapes the state–business relationships in Zhejiang. Thus, the market-oriented development trajectory has been enhanced.

When a region has a resource-based comparative advantage and has already formed a long-lasting, highly resource-dependent industrial structure in a state-led institutional environment, like Yunnan, the choice set is narrowed when it comes to inter-jurisdictional competition, due to the high degree of durability, stability, inflexibility, and irreversibility of given structures. Therefore, local governments tend to protect and support the existing local core industries and firms, resulting in a close state–business relationship. In other words, although previous and existing sets of possibilities already show increasing rigidity and inefficiency and signs of entering the lock-in process, the choices selected represent a suboptimal solution but a feasible way for economic actors to survive in the face of competition, which further reinforces path dependence.

Therefore, the implementation of decentralization and marketization reform in China neither reduces the unevenness of regional development nor brings about a trend towards convergence of a homogeneous development pattern. Regional differences persist and increase.

The two cases of path dependence studied here led to completely different economic outcomes. Unlike classical path dependence theory, which emphasizes the inflexibility and inefficiency of the path-dependence phenomenon, in this research, regional path dependence is a “neutral” concept, which could play a positive or negative role in regional economic growth. The analysis of the existing development trajectories of Zhejiang and Yunnan demonstrates that the following factors play key roles in shaping and strengthening distinctive local development patterns.

- a. Internal factors, such as regional resources base (especially in Yunnan) and geographical location, industrial structure, the strength of the state, institutional structure, as well as the unique decentralization reform in China and the incentive mechanisms for local cadres which shape a highly competitive environment for local governments competing to raise local revenue.
- b. External factors, including cultural factors (business culture), and exogenous forces such as the global market.

These factors mutually shape the development trajectories in Zhejiang and Yunan, and lead to long-term regional institutional complementarity, enhancing regional divergence.

7.3.2 Theoretical contribution

As mentioned in Chapter 2, Whitley (1999) excludes mainland China from his East Asian business systems case study. From Whitley's point of view, the Chinese economy's evolutionary processes are not natural, and do not follow "the natural logic of cause and effect in finding paths" (Redding 2002: 225). Whitley's view substantially disregards economic actors' initiatives in shaping paths and considerably underestimates the significant efforts of marketization in China since 1978 and the crucial role of market forces in the Chinese economy. Hence, this research has focused on the transitional Chinese economy to enrich business systems theory.

At the same time, due to its overemphasis on the stability and persistence of cohesive economic and institutional configurations, the VoC approach has been criticized for developing a static approach, which makes it difficult to observe and explain how and why institutional changes occur (Jackson and Deeg 2006: 28–34, Campbell and Pedersen 2007: 324–325, Hall and Thelen 2009: 8–9). Unlike the VoC approach, Whitley (1999) explicitly brings path dependence into business systems theory and highlights the importance of pre-industrial, economic, and institutional structures and configurations in shaping the existing predominant types of institutions and economic organizations (Whitley 1999: 179–183). Hence, compared with the static aspects of the VoC approach, business systems theory can be applied in dealing with the dynamics of economic systems.

Although an increasing number of comparative capitalism studies have begun to focus on institutional change, most of them investigate only one or two decades and neglect the long-term evolving economic and institutional configurations and arrangements (Nölke and Claar 2013: 36). Whitley (1999) emphasizes the change of predominant institutional domains in business systems, but he offers a relatively limited descriptive historical perspective of development and change in business systems in his case studies. Additionally, Whitley (1999) says little about the initial conditions of an economy, and business systems theory overall is short on detail of the evolving economic actors in the changing systems.

Hence, both the VoC approach and business systems theory have failed to provide an adequately systematic approach to analysing changing economic and institutional configurations. Thus, to understand the evolving development trajectories

and the changing roles of economic actors in the heterogeneous transitional economy, this research was conducted from a dynamic perspective by introducing an evolutionary perspective.

Moreover, neither the VoC approach nor business systems theory pay attention to regional differences or to the cohesive system at the regional level in the heterogeneous transitional economy. The markedly uneven regional development and the great diversity of economic and institutional patterns typify the transitional Chinese economy. At the same time, a high degree of cohesion can be observed in systems at the regional level. To investigate the development trajectory at the national scale does not help us to understand differences in regional economic performance, economic actors' behaviour, and local developmental paths, let alone the regional institutional complementarities. There is no single explanation for regional differences. Regions are subject to a set of economic and institutional arrangements and historical and social legacies with specific resource bases (Andriessse 2008: 32), which inform a variety of developmental patterns. Uneven regional development is a common phenomenon, especially in emerging and transitional economies such as China. Therefore, this research adopted business systems theory at the regional level in the heterogeneous Chinese economy.

Most empirical studies focus on well-developed regions or economic core areas, while the regional development trajectories in the less-developed areas or the peripheral regions are largely disregarded, and there is very little comparative analysis of two regions with fundamental differences. A comparative analysis between the core economic area and peripheral regions does not simply compare the development levels of the two, but seeks to understand how distinctive economic and institutional configurations and arrangements become shaped and changed over time.

As discussed above, the decentralization reform in China has profoundly impacted on and shaped regional development trajectories. From the 1970s, many developing countries embarked on fundamental transformations in the search for a more effective and efficient governance structure (Rondinelli et al. 1983: 5–8). Implementing decentralization reform in developing countries has not always been as successful as planned (*ibid.*: 8–13). Two challenges are inevitable in the decentralization process: (a) to find the balance between centralization and decentralization (the “optimal mix”); and (b) to provide proper incentives for local governments to ensure that the goals and interests of central and local governments coincide (Rondinelli et al. 1983: 8–13, Bird and Vaillancourt 2008: 4–5). Therefore, as Rondinelli et al. argue: (1983: 76), “decentralization is not a ‘quick fix’ for the administrative,

political, or economic problems of developing countries”, but an evolutionary process which changes and adjusts along with changes in national and local economic and institutional conditions, especially in transitional and heterogeneous economies.

In applying evolutionary business systems theory at the regional level in the heterogeneous Chinese economy, the impact of decentralization on shaping the regional development trajectory and economic actors’ behaviour is thus indispensable. Although decentralization reform has a significant impact on emerging or transitional economies, the role of decentralization is rarely addressed in comparative systems analysis. Highlighting the role of decentralization enabled this research to be conducted from an evolutionary perspective and business systems theory to be applied at the regional level.

Additionally, although the degree of independent decision-making and responsibility transferred from central government to local authorities might differ (Rondinelli et al. 1983: 14), China’s decentralization pattern is very different from the four types of decentralization distinguished by Rondinelli et al. (ibid.). Three major elements characterize the unique decentralization process in China: fiscal decentralization (financial power), M-form organization (semi-autonomous system), and the incentive system (rank-order tournament promotion system). These three elements of decentralization significantly intensify inter-jurisdictional competition and shape the particular behaviour patterns (e.g. focus on promoting local economy, risk aversion and short-term orientation), which determine the existing regional business systems and enhance path dependence. Therefore, adding decentralization (especially the fiscal side), the hierarchical structure of governments, and incentive (promotion) systems into business systems theory as indicators can foster a better understanding of economic actors’ behaviour, and the role of local governments vis-à-vis central governments in local economic development.

Based on the discussion above, the theoretical contributions of this research are:

- a. to focus on the transitional heterogeneous Chinese economy and to enrich the typology of business systems theory;
- b. to apply business systems theory to studying the regional level and the role of the state in dynamic regional business systems, thereby explicitly examining the role of decentralization and promotion systems in shaping the behaviour of subnational local governments;
- c. to examine regional institutional complementarities in the heterogeneous transitional economy;

- d. to fill a gap in comparative analysis between the economic core area and the peripheral region in the heterogeneous Chinese economy;
- e. to connect the evolutionary perspective to business systems theory.

7.4 The new research agenda

In this study, business systems theory and evolutionary theory have been applied to understand how and why distinctive regional development trajectories become established and transformed in the heterogeneous Chinese economy, and to examine the changing role of economic actors in the evolving economic and institutional environment at the regional level. Whitley's business systems theory provided the basic conceptual categories used in this research to identify the diverse dominant features in specific sets of institutional environments at the regional level. Three major merits of using business systems theory as a broad framework in this research were discussed in Chapter 2; these are: a) compared to other approaches, business systems theory provides more complex typologies and dimensions to examine a wider range of economies; b) it shows more balance than the firm-centred VoC analysis; and c) the VoC approach fails to explain the rapid growth of China's economy, whereas Whitley's approach is more adaptable. A comparative case study method was applied in this research. However, there are also challenges to using business systems theory and comparative case study research methods in research.

First, the major challenge or barrier in this type of case study is whether the findings can be generalized beyond selected cases (Yin 2003: 37). For findings to be generalized, as emphasized by Yin (*ibid.*), replications must be made to test the theory. Therefore, more research on replicating the results in other regions to test the findings is one element of a new research agenda. For example, a large-*n* comparison study could be undertaken to expose patterns and to aid generalization, and hierarchical cluster analysis could be used to group and identify similar patterns.

For a better understanding of whether the findings in this research can be generalized, topics for research in other regions could include:

- a. The role of decentralization on evolutionary regional business systems. As discussed in this thesis, the combination of three elements typify China's decentralization; thus, where central governments have applied various combinations of types of decentralization, new research could focus on what type of decentralization works or has most impact in a region.

- b. The role of pre-existing industrial and institutional structures on evolutionary regional business systems. As business systems theory offers a limited description of historical trajectories, the initial conditions of pre-existing industrial and institutional structures should be studied.
- c. The question of whether evolutionary development trajectories converge or diverge in regions with different industrial structures and institutional environments. Given the strong impact of the decentralization process in enhancing path dependence and regional divergence in Zhejiang and Yunnan, the impact of decentralization also needs more attention.

Second, business systems theory focuses on identifying and analysing the coordination mechanisms among actors and institutions within specific economic and institutional arrangements and environments, but it does not study the causalities. Moreover, no unified operational set of measures has been developed in comparative system theory to explain the diversity of regional economic development. Local economic development has been studied using various methods and models. In this research, the basic conceptual categories of Whitley's business systems theory have been applied. Hence, the second element of a new research agenda is to include alternative explanations and factors such as FDI, global value chains, cultural factors, technological factors, etc., and to conduct causal studies. Moreover, various other aspects, such as regional innovation systems, spillover effects, the core-periphery model, the concept of related and unrelated variety, could also be added in analysing the evolutionary local business system. This research has focused on the industrial sector; another possibility for further research is to investigate the changing role of agricultural and service sectors in regional development trajectories. In other words, alternative explanations and factors and ways of analysis could be introduced in further studies.

One notable weaknesses of this research is the relatively small size of the survey sample. One hundred sampled firms in each province is not enough to build a statistical model, especially in Yunnan (where the difference between SOEs and private firms generates outliers). Moreover, the design of the survey questions proved to be too complicated to conduct a statistical analysis. Hence, in any research going forward, the sample size could be increased, and survey questions could be simplified.

Finally, Zhejiang and Yunnan are fundamentally different in their development trajectories, but both cases exhibit a relatively high degree of consistency. Zhejiang and Yunnan are two extreme cases with a markedly strong private sector or state sector, which explains the strength of path dependence and the divergent trend of

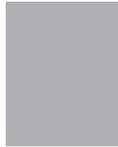
their development paths. The way that regions with more heterogeneous institutional structures evolve and what factors determine their development trajectory could be another element of a new research agenda.

Overall, the comparative analysis of the Zhejiang and Yunnan development trajectories that is presented in this thesis offers a wide variety of opportunities for further research.

Notes

¹ The regional differences in accessing markets are largely due to the varying technical requirements, manufacturing processes' safety standards, hygiene requirements, etc. in different industries.

² The "credit-based" financial system in Zhejiang mostly refers to informal financial institutions.



Appendices

Appendix 1 *Questionnaire for entrepreneurs*

1. The name of your company is _____

2. Which province and city does your company locate in?
Province _____
City _____

3. Where does your company initially register in Administration for Industry and Commerce?
Province _____
City _____

4. [Single-select multiple choice]
Which registration categories of enterprise does your company belong to? ()
 - A. State-owned enterprises, including Collective-owned enterprises
 - B. Private Enterprises
 - C. Joint State collective enterprises
 - D. Cooperative enterprises
 - E. Share- Holding Corporation limited

- F. State sole funded corporations
- G. Limited liability corporations
- H. Enterprise with funds from Hong Kong, Macao, Taiwan
- I. Enterprise with foreign funds
- J. Other. Please indicate what category is it? _____

5. When was your company established?

6. [Single-select multiple choice]

Which of the following sectors does your company belong to? ()

- A. Mining
- B. Manufacturer. Please indicate what sector it is? _____
- C. Production and supply of electric power and water
- D. Wholesale trade and retail trade
- E. Transport
- F. Real Estate
- G. Financial or insurance organization
- H. IT
- J. Other sector. Please indicate what sector is it? _____

7. How many employees do you have in your company? _____

How frequently is the turnover of the workers? _____

What is the value of the registered capital of this company? _____

What is the value of the current total assets of this company? _____

What is the value of the investment of this company in the last year? ____

8. Is it convenient to obtain a business license, trade license, and trade qualification certification?

Yes/ No , please specify the reason_____

9. Are there other criteria other than basic requirements considered in obtaining the license or permit of your company? Yes /No

If your answer is “yes”, please list the criteria: _____

10. Do you think it is reasonable and why? _____

This question aims to determine whether the local government formulated additional rules or regulations for particular registered categories of enterprises or sectors to increase the difficulties in obtaining the license or permit.

11. How many days did you have to wait to obtain the license or permit of your company? _____days

12. What is/are the original principal business(es) which you registered in Administration of Industry and Commerce? _____

What is/are your currently principal business(es)? _____

13. Do you need to update or obtain a new business license, trade license, and trade qualification certification when you want to enlarge or operate a new business?

Yes, please list the criteria: _____. / No

14. Do you need to pay extra fees other than basic prescribed fees for obtaining the license or permit of your company? Yes /No

If your answer is “yes”, can you estimate what is the percentage of the extra fees to total prescribed fees? _____

15. [Single -select multiple choice]

How would you rate the level of difficulty in applying the license or permit of your company and accessing to market? ()

A. Very difficult

B. Somewhat difficult

C. A little bit difficult

D. Neutral

- E. A little bit easy
- F. Somewhat easy
- G. Very easy

16. [Multiple- selects multiple choice]

Please choose what factors prevent or constrain your company from accessing the market? ()

- A. The difficult and complex application process for a license.
- B. The difficult and complex application process for permit or qualification.
- C. The specific prescribed requirements or political discrimination for private enterprise while you apply for a license or permit
- D. High threshold of registered capital while you apply for a license or permit
- E. High threshold of company's commercial credit while you apply for a license or permit
- F. High threshold of manufacturing technique
- G. High level of requirement on sanitation certification and technique and equipment for environmental protection
- H. You can feel the regional protectionism for companies that initially registered in other regions.
- I. There are monopolies in your sector
- J. Intense competition
- K. Other factors. Please indicate what are they? _____

17. [Multiple- selects multiple choice]

Please choose what factors encouraged your company to access the market? ()

- A. The easy and convenient application process for license
- B. The easy and convenient application process for permit and qualification
- C. There is no specific prescribed requirements or political discrimination for private enterprise while you apply for a license or permit
- D. Reasonable threshold of registered capital while you apply for a license or permit
- E. There is no specific requirement of company's commercial credit while you apply for a license or permit

- F. Attainable threshold of manufacturing technique
- G. Attainable level of requirement on sanitation certification and technique and equipment for environmental protection
- H. You have never felt the regional protectionism for companies that initially registered in other regions.
- I. Fair market competition
- J. High market potential
- K. Other factors. Please indicate what are they? _____

18. [Multiple- selects multiple choice]

Does the local government provide favorable policies to your company? ()

- A. The local government provided “Green Passage” to your company when you registered in Administration of Industry and Commerce.
- B. The local government reduced or waived some procedures or prescribed fees when you registered in the Administration of Industry and Commerce.
- C. The local government provided tax concession for your company. Please indicate the details of tax concession. _____
- D. The local government offered concessional rent for land or equipment for your company.
- E. The local government offered funds to your company. _____
- F. The local government offered subsidies for your company's R&D activities.
- G. The local government provided free collateral loans to your company.
- H. Other policies. Please indicate what they are? _____

19. [Multiple- selects multiple choice]

Does the local government provide the following public services to your company?
()

- A. The convenient transportation
- B. The sufficient electricity supply
- C. The Internet access
- D. The sufficient gas supply
- E. The sufficient water supply

- F. The regular employee training projects
- G. The convenient public facilities like schools, hospitals, commercial centers, etc.
- H. Other policies. Please indicate what they are? _____

20. [Rank items numerically]

How do you price your products or services? Please rank in order of importance from most important to least important.

- The local government provides guidelines to enterprises to set the price.
- Based on the market price of the identical products
- The price of products is fixed based on the cost of the products.
- The price of products is fixed based on the agreements between companies.
- The price of products is fixed based on the company's target profit of the products.
- The price of products is fixed based on the contract between your company and the buyer of products.
- Other. Please indicate what they are? _____

21. [Rank items numerically]

What are your company's sources of finance? Please rank in order of importance from most important source to least important source.

- Internal funds/retained earnings
- Owner' contribution or issue new equity shares
- New debt issuances, including commercial Paper and debentures
- Bank borrowing
- Purchases on credit from suppliers and advances from customers
- Borrowing from informal financial institutions
- Borrowing from friends or relatives
- Local government investment
- Local government loan
- Foreign funds
- Other source. Please indicate what is it? _____

22. [Single -select multiple choice]

How would you rate the level of difficulty in accessing bank loans? ()

- A. Very difficult
- B. Somewhat difficult
- C. A little bit difficult
- D. Neutral
- E. A little bit easy
- F. Somewhat easy
- G. Very easy

23. [Single -select multiple choice]

How would you rate the level of difficulty in accessing informal finance institutions?
()

- A. Very difficult
- B. Somewhat difficult
- C. A little bit difficult
- D. Neutral
- E. A little bit easy
- F. Somewhat easy
- G. Very easy

24. Did your company has ever merged or acquired other companies? Yes/No

If your answer is 'yes, please answer the following questions.

- (1) When did you take over the company/ these companies? _____
- (2) Why did you take over the company/ these companies? _____
- (3) What is/ are the registration categories of enterprise of the company (these companies), which had been merged or acquired by your company? _
- (4) How many employees did the company/ companies have? _____
- (5) Does the company (these companies), which had been merged or acquired by your company, have the identical products as your company? Yes/No

If your answer to the question is “No”, please indicate what did they produce?

(6) [Multiple- select multiple choice]

How did you conduct the takeover? ()

A. By cash

B. By stock

C. Other. Please indicate what is it? _____

(7) [Single -select multiple choice]

Does the local government encourage or support the activity? ()

A. Very supportive

B. Somewhat supportive

C. A little bit supportive

D. No intervention

E. A little bit discouraged

F. Somewhat discouraged

G. Very discouraged

If your answer to the question is from A to C or from E to G, please indicate the way the local government supported or discouraged the activity. _____

25. Did your company has ever been merged or acquired by other companies?

Yes/No

If your answer is ‘yes, please answer the following questions.

(1) When did your company have been taken over by other company/ companies?

(2) Why did your company have been taken over by other company /companies?

(3) What is/ are the registration categories of enterprise of the company (these companies), which had merged or acquired your company? _____

(4) How many employees did the company/ companies have? _____

(5) Does the company (these companies), which had merged or acquired your company, have the same product as your company? Yes/No

If your answer to question is “No”, please indicate what did they produce?

(6) [Multiple- select multiple choice]

How did your company have been taken over? ()

A. By cash

B. By stock

C. Other. Please indicate what is it? _____

(7) [Single -select multiple choice]

Does the local government encourage or support the activity? ()

A. Very supportive

B. Somewhat supportive

C. A little bit supportive

D. No intervention

E. A little bit discouraged

F. Somewhat preventive

G. Very preventive

If your answer to question is from A to C or from E to G, please indicate the way the local government supported or prevented the activity.

26. Are there at least five firms with the same business activity as your company in your city? Yes/ No

27. If your answer to question No. 26 is “Yes”, can you estimate how many employees do the largest and smallest firms with the same business activity as your company have? _____

28. How many companies with the same business as your company are there per km² within the same area?

29. Does your company coordinate with other companies? Yes/ No

30. [Rank items numerically]

If your answer is “Yes” to question 29, Please rank in order of frequency of the different types(s) of the enterprise(s), which your firm has cooperated with, from most frequent to least frequent?

- SOEs in the same industrial sector
- Private enterprises in the same industrial sector
- Foreign-funded enterprises in the same industrial sector
- SOEs in the different industrial sector
- Private enterprises in the different industrial sector
- Foreign-funded enterprises in the different industrial sector

31. [Rank items numerically]

What kinds of coordination does your company have conducted with SOEs? Please indicate the location of the firms with which your firm has cooperated.

- To purchase components from SOEs _____
- To purchase production equipment from SOEs _____
- To sell components to SOEs _____
- To outsource business to SOEs _____
- Technical cooperation with SOEs _____
- Research and development of products/processes/markets with SOEs
- To share market resource with SOEs _____
- To training workers with SOEs _____
- Other. Please indicate what are they? _____

32. [Rank items numerically]

What kinds of coordination does your company have conducted with private enterprises? Please indicate the location of the firms with which your firm has cooperated.

- To purchase components from private enterprises _____
- To purchase production equipment from private enterprises _____
- To sell components to private enterprises _____

- () To outsource business to private enterprises _____
- () Technical cooperation with private enterprises _____
- () Research and development of products/processes/markets with private enterprises _____
- () To share the market resource with private enterprises _____
- () To training workers with private enterprises _____
- () Other. Please indicate what are they? _____

33. [Rank items numerically]

What kinds of coordination does your company have conducted with SOEs? Please indicate the location of the firms with which your firm has cooperated.

- () To purchase components from foreign-funded enterprises _____
- () To purchase production equipment from foreign-funded enterprises _____
- () To sell components to foreign funded enterprises _____
- () To outsource business to foreign-funded enterprises _____
- () Technical cooperation with foreign funded enterprises _____
- () Research and development of products/processes/markets with foreign funded enterprises _____
- () To share the market resource with foreign-funded enterprises _____
- () To training workers with foreign-funded enterprises _____
- () Other. Please indicate what are they? _____

34. Please rank in order from the most frequent type of coordinate to the less frequent type of coordinate.

The most frequent type: _____

The frequent type: _____

The less frequent type: _____

35. [Multiple- select multiple choice]

How is this coordination realized? ()

A. Via the guided or supported by local government

B. Via formal industrial association

C. Via informal negotiation between firms

D. Other. Please indicate what they are? _____

36. Does your company have a long-term partnership with suppliers? Yes/No

37. Does your company have a long-term partnership with clients? Yes/No

38. If your answer to questions No.36 and No.37 are “Yes”, please answer the following questions.

How long have your company been work with? _____

What kind of business is/are it/they? _____

39. Does your company have a long-term partnership with other firms? Yes/No

If your answer is “Yes”, please answer the following questions.

How long have your company been work with? _____

What kind of business is/are it/they? _____

40. [Single -select multiple choice]

How would you rate the level of difficulty in coordinating with other companies?

()

A. Very difficult

B. Somewhat difficult

C. A little bit difficult

D. Neutral

E. A little bit easy

F. Somewhat easy

G. Very easy

41. [Open-ended text]

Based on the answer to question 40, please indicate why do you think it is difficult/not difficult? _____

42. [Rank items numerically]

What is (are) the target market(s) of your company's product(s)? Please rank in order of importance from most important to the least important market of your product(s).

- () Local Market
- () Adjacent Province Market
- () Domestic Market
- () Foreign Market

43. Whether the industry sector, which your company belongs to, has already had local business association? Yes. Please indicate the name of the business association _____/ No

44. If any company wants to apply for being a member of this business association, whether are there some requirements for joining the association?

Yes. Please indicate what the requirements are? _____

No.

45. Is your company a member of this business association?

Yes. Please indicate the role of the businesses association they play in your company. What benefits for the company? What challenges for the company?

No

46. Does your company have any cooperation with the local government? Yes/No

47. [Rank items numerically]

If your answer is "Yes" to question 46, Please rank in the frequency of different types of interaction from most frequent to least frequent?

- () Infrastructure construction
- () Market development
- () Technical cooperation

- () Research and development of products
- () Training and education
- () Other. Please indicate what are they? _____

48. Do you have local government officials on your boards? Yes / Once / No

49. [Open-ended text]

If your answer is “Yes” to question No.48, what kind of role do they play in your company? What benefits for the company? What challenges for the company?

50. Do you have party committees within your company? Yes/No

51. [Open-ended text]

If your answer is “Yes” to question No.50, what kind of role do they play in your company? What benefits for the company? What challenges for the company?

52. [Single -select multiple choice]

Does the relationship with the local government have become more important for the development of your company?

- A. Very unimportant
- B. Somewhat unimportant
- C. A little bit unimportant
- D. Neutral
- E. A little bit important
- F. Somewhat important
- G. Very important

53. [Open-ended text]

Based on the answer above, please indicate why do you think it is important/ not important and in what aspects do you want to get help from the local government?

End.

Appendix 2

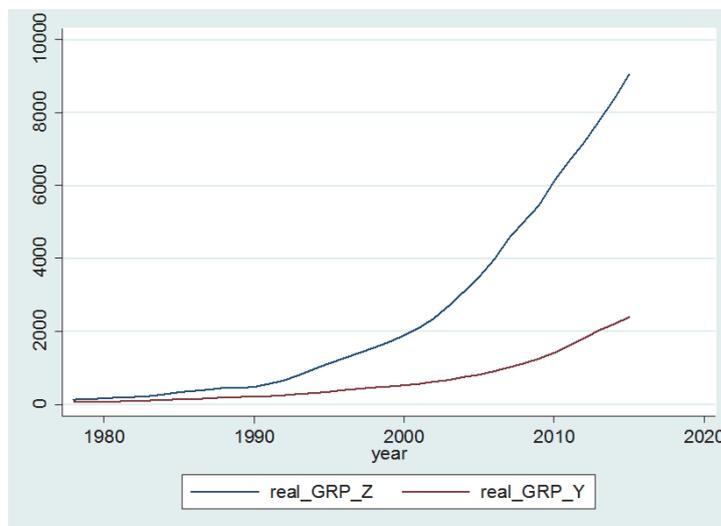
Survey results

As the research is intended to identify the distinctive business systems and to highlight regional differences, the survey results are tested to show whether there are significant differences between Zhejiang and Yunnan.

1 The local economic performance in Zhejiang and Yunnan

The real GRP in two provinces from 1978 to 2015 were used to examine the differences in the local economic performance in Zhejiang and Yunnan. As the indicators were time series and the long-term and persistent trends of time series would jeopardize the results of tests, the “stationarity” test was run before the two-sample t-test.

Figure A1
The real GRP in Zhejiang and Yunnan



Note: a. Real $GRP_N = GRP_{base\ year} * Indices\ of\ GRP_N / 100$)

b. The Real GRP in Zhejiang and Yunnan are calculated with constant price at the base year 1978.

The figure above shows that real GRP in both Zhejiang and Yunnan had an increasing trend over time, which could be inferred that the data of real GRP in the two provinces were not stationary. Therefore, the Dickey-Fuller test was conducted to explore whether a unit root presented in data, so that the stationary of data could

be tested. The null hypothesis: variable is nonstationary, and the alternative hypothesis: variable is stationary. The result of the DF test showed that the test statistic of both variables was larger than the interpolated DF critical value at 5% level, hence, we cannot reject H_0 , meaning that there were unit-roots presenting and the data had a non-stationary problem. After taking the logarithm and first-order difference, the problem of non-stationary in both Zhejiang and Yunnan's real GRP was eliminated, which means variables were stationary. The results are reported below.

Figure A2
Dickey-Fuller test for unit root (Real GRP)

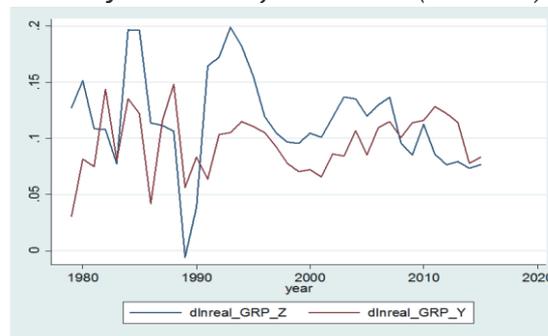


Table A1
Dickey-Fuller test for unit root (Real GRP)

Zhejiang

Dickey-Fuller test for unit root

Number of obs= 36

-----Interpolated Dickey-Fuller-----

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.188	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0207

Yunnan

Dickey-Fuller test for unit root

Number of obs= 36

-----Interpolated Dickey-Fuller-----

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-5.846	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0000

By using the newly generated stationary variables, a two-sample independent t-test was run to determine if there were differences between Zhejiang and Yunnan.

Table A2
Two-sample t test with equal variances (Real GRP)

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
dlnea-Z	37	0.1160	0.0071	0.0430	0.1017	0.1303
dlnea-Y	37	0.0958	0.0044	0.0269	0.0868	0.1048
combined	74	0.1059	0.0043	0.0371	0.0973	0.1145
diff		0.0202	0.0083		0.0036	0.0369
diff = mean(dlnreal_GRP_Z) - mean(dlnreal_GRP_Y)						t= 2.4238
Ho: diff = 0						degrees of freedom = 72
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0		
Pr(T < t) = 0.9911		Pr(T > t) = 0.0179		Pr(T > t) = 0.0089		

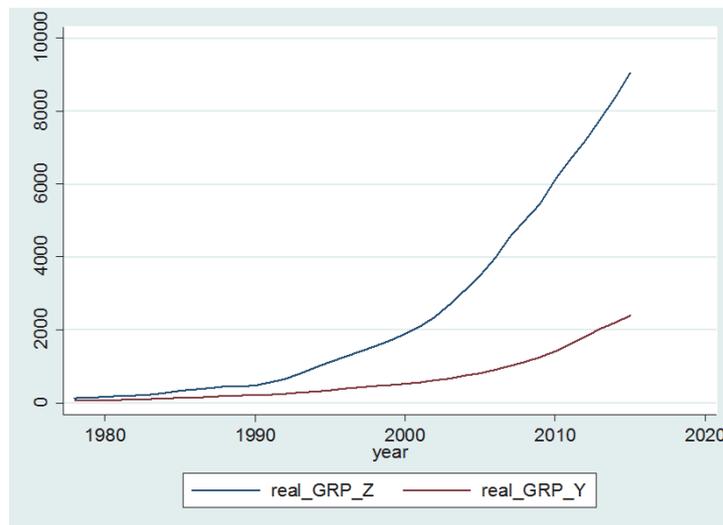
The result shows that the difference in means was estimated as 0.02 with a 95% confidence interval from 0.0036 to 0.037. The two-tailed p-value is 0.018, so there was evidence that the real GRP in Zhejiang and Yunnan differed in their mean.

2 The regional industrial structures in Zhejiang and Yunnan

2.1 Real GRP of industrial sector from 1978-2015: significant difference

The graph shows that the real GRP of industrial sector in both Zhejiang and Yunnan had an increasing trend over time, which can be inferred that the data are not stationary and the result of the DF test shows that there were unit-roots presenting and the data had a non-stationary problem.

Figure A3
The real GRP of industrial sector in Zhejiang and Yunnan



Note: The Real GRP of industrial sector in Zhejiang and Yunnan are calculated with constant price at the base year 1978.

After taking the logarithm and first-order difference, the problem of non-stationary was eliminated, which means variables were stationary. The results are reported below.

Figure A4
Dickey-Fuller test for unit root (Real GRP of industrial sector)

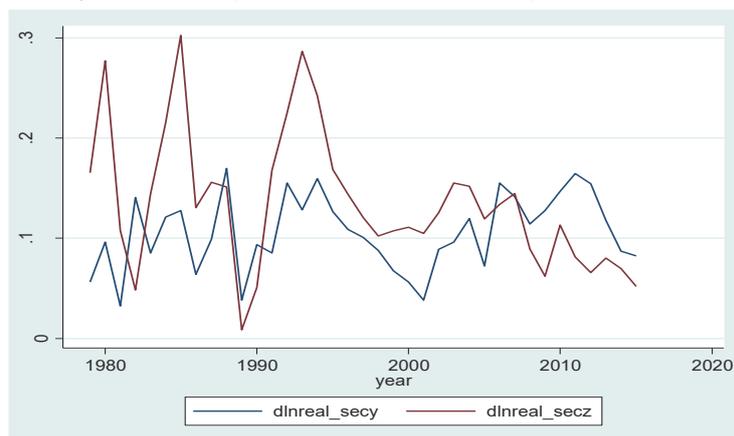


Table A3
Dickey-Fuller test for unit root (Real GRP of industrial sector)

Zhejiang

Dickey-Fuller test for unit root

Number of obs= 36

	Test Statistic	-----Interpolated Dickey-Fuller-----		
		1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.192	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0205

Yunnan

Dickey-Fuller test for unit root

Number of obs= 36

	Test Statistic	-----Interpolated Dickey-Fuller-----		
		1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-4.833	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0000

By using the newly generated stationary variables, a two-sample independent t-test was run to determine if there were differences between Zhejiang and Yunnan.

Table A4
Two-sample t test with equal variances (Real GRP of industrial sector)

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
dlInrea-Z	37	0.1347	0.0112	0.0681	0.1120 0.1574
dlInrea-Y	37	0.1056	0.0062	0.0376	0.0931 0.1182
combined	74	0.1201	0.0066	0.0566	0.1070 0.1333
diff		0.0291	0.0128		0.0036 0.0546

diff = mean(dlnreal_secz) - mean(dlnreal_secy)

t= 2.2716

Ho: diff = 0

degrees of freedom = 72

Ha: diff < 0

Ha: diff != 0

Ha: diff > 0

Pr(T < t) = 0.9869

Pr(|T| > |t|) = 0.0261

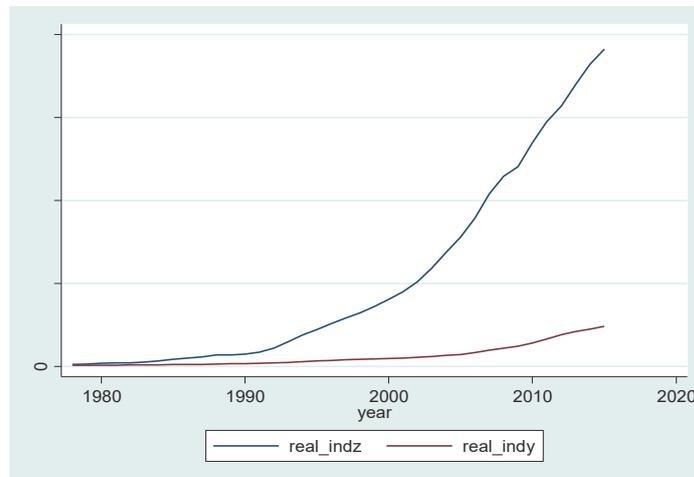
Pr(T > t) = 0.0131

The result shows that the difference in means was estimated as 0.029 with a 95% confidence interval from 0.0036 to 0.055. The two-tailed p-value is 0.026, so that there were significant differences between the real GRP of industrial sector in Zhejiang and Yunnan.

2.1 Real GRP of Industry Sector from 1978-2015: significant difference

The figure below shows that the real GRP of industry sector in both Zhejiang and Yunnan had an increasing trend over time, which can be inferred that the data were not stationary and the result of the DF test shows that there were unit-roots presenting and the data had a non-stationary problem.

Figure A5
The real GRP of industry sector in Zhejiang and Yunnan



Note: The Real GRP of industrial sector in Zhejiang and Yunnan are calculated with constant price at the base year 1978.

After taking the logarithm and first-order difference, the problem of non-stationary was eliminated, which means variables were stationary. The results are reported below.

Figure A6
Dickey-Fuller test for unit root (Real GRP of industry sector)

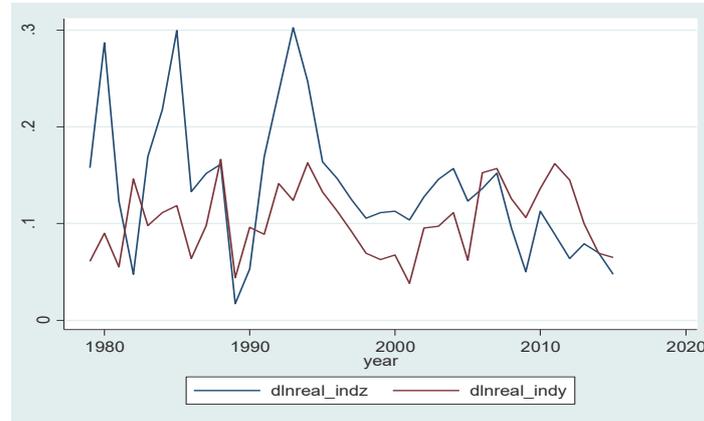


Table A5
Dickey-Fuller test for unit root (Real GRP of industry sector)

Zhejiang

Dickey-Fuller test for unit root

Number of obs= 36

-----Interpolated Dickey-Fuller-----

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.191	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0205

Yunnan

Dickey-Fuller test for unit root

Number of obs= 36

-----Interpolated Dickey-Fuller-----

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-4.497	-3.675	-2.969	-2.617

MacKinnon approximate p-value for Z(t) = 0.0002

By using the newly generated stationary variables, a two-sample independent t-test was run to determine if there were differences between Zhejiang and Yunnan.

Table A6
Two-sample t test with equal variances (Real GRP of industry sector)

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
dlInre-dz	37	0.1376	0.1150	0.0700	0.1143 0.1610
dlInre-dy	37	0.1035	0.0060	0.0362	0.0914 0.1155
combined	74	0.1205	0.0067	0.0580	0.1071 0.1340
diff		0.0342	0.0130		0.0084 0.0600

diff = mean(dlnreal_secz) - mean(dlnreal_secy) t= 2.6388

Ho: diff = 0 degrees of freedom = 72

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

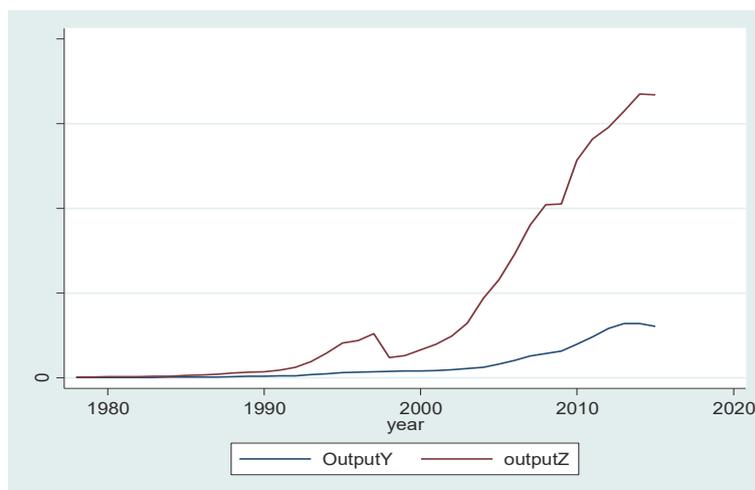
Pr(T < t) = 0.9949 Pr(|T| > |t|) = 0.0102 Pr(T > t) = 0.0051

The result shows that the difference in means was estimated as 0.034 with a 95% confidence interval from 0.0084 to 0.06. The two-tailed p-value is 0.01, so the null hypothesis can be rejected and there were significant differences between Zhejiang and Yunnan.

2.3 The total output value of industry from 1978-2015: significant difference

The graph below shows a strong increasing trend in Zhejiang's total output value and the total output value in Yunnan also had persistent upward movements over-time.

Figure A7
The total output value of industry in Zhejiang and Yunnan



The result of the DF test shows that the total output value of industry in Zhejiang and Yunnan were not stationary. After taking the logarithm and difference, variables (Zhejiang: first order; Yunnan: second order) were stationary. The results are reported below.

Figure A8
Dickey-Fuller test for unit root (the total output value of industry)

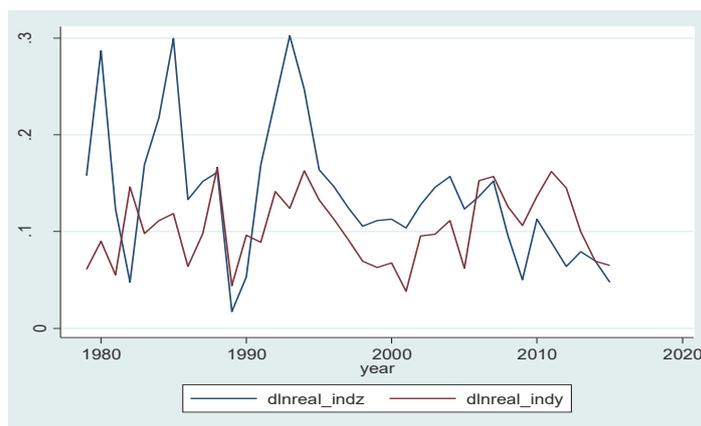


Table A7
Dickey-Fuller test for unit root (the total output value of industry)
Zhejiang

Dickey-Fuller test for unit root		Number of obs= 36		
-----Interpolated Dickey-Fuller-----				
	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-4.517	-3.675	-2.969	-2.617
MacKinnon approximate p-value for Z(t) = 0.0002				

Dickey-Fuller test for unit root		Number of obs= 36		
-----Interpolated Dickey-Fuller-----				
	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-5.897	-3.682	-2.972	-2.618
MacKinnon approximate p-value for Z(t) = 0.0000				

By using the newly generated stationary variables, a two-sample independent t-test was run to determine if there were differences between Zhejiang and Yunnan.

Table A8

Two-sample t test with equal variances (the total output value of industry)

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
dlnout-z	37	0.1683	0.0324	0.1968	0.1026 0.2339
d2lnou-y	36	0.0048	0.0140	0.0837	0.0331 0.0236
combined	73	0.0829	0.0204	0.1743	0.0423 0.1236
diff		0.1730	0.0356		0.1021 0.2440
diff = mean(dlnoutputz) - mean(d2lnoutputy)					t= 4.8633
Ho: diff = 0					degrees of freedom = 71
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0	
Pr(T < t) = 1.0000		Pr(T > t) = 0.0000		Pr(T > t) = 0.0000	

The result shows that the difference in means was estimated as 0.17 with a 95% confidence interval from 0.1 to 0.12. The two-tailed p-value was 0.00, so that there were significant differences between Zhejiang and Yunnan's output value.

2.4 Survey results of sampled firms

2.4.1 Firm age of sampled firms: significant difference

As the indicators are continuous variables, a normality test was run to determine if there were significant differences.

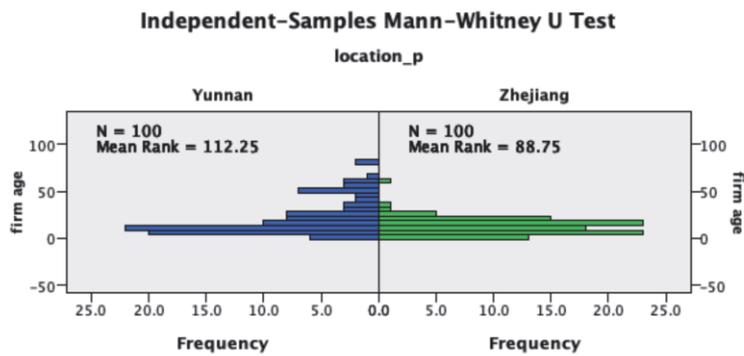
Table A9
Descriptive statistics of sampled firm age

	Zhejiang	Yunnan
Valid	100	100
Mean	13.13	22.28
Median	12.5	14.5
Std. Deviation	8.971	19.034
Variance	80.478	362.284
Skewness	1.898	1.214
Std. Error of Skewness	0.241	0.241
Kurtosis	8.39	0.597
Std. Error of Kurtosis	0.478	0.478

By looking at the histograms below, it can be inferred that the data of firm age from both provinces, especially Yunnan, were skewed distribution. Therefore, the One-Sample Kolmogorov Smirnov test (K-S test) was run to test whether a variable

follows the normal distribution. The results show that both variables were not a normal distribution, so the Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The results are reported below.

Figure A9
Independent-Samples Mann-Whitney U Test (firm age)



Total N	200
Mann-Whitney U	6,175.500
Wilcoxon W	11,225.500
Test Statistic	6,175.500
Standard Error	408.873
Standardized Test Statistic	2.875
Asymptotic Sig. (2-sided test)	.004

The null hypothesis of the U test is that the distribution of the variable is the same across categories. The p-value was 0.004, so that the null hypothesis could be rejected. Thus, there were significant differences in firm age between Zhejiang and Yunnan.

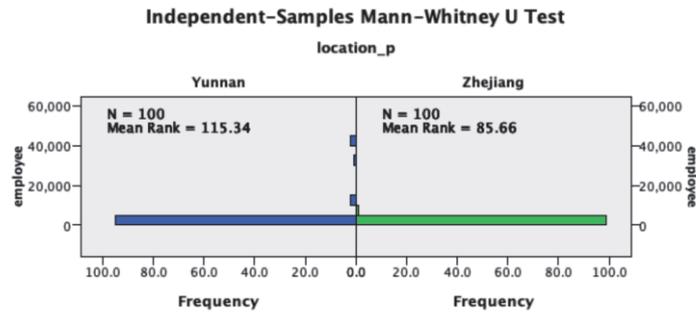
2.4.2 Firm size (numbers of employee and total assets) of sampled firms: significant difference

Table A10
Descriptive statistics of sampled firm size

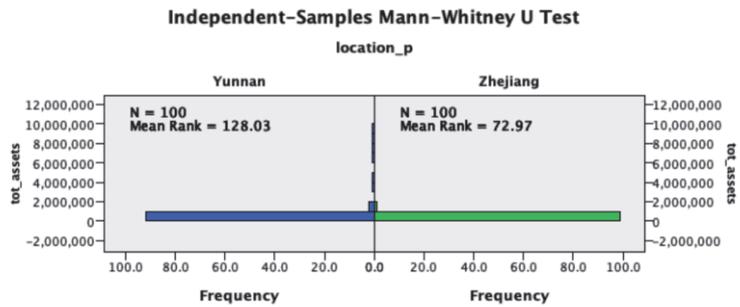
	Zhejiang		Yunnan	
	employee	tot_assets	employee	tot_assets
Valid	100	100	100	100
Mean	329.7	26965.46	1772.3	463407.67
Median	100	1685	195	13500
Std. Deviation	766.256	130452.73	6421.632	1594912.94
Variance	587148.96	1.7018E+10	41237352.9	2.5437E+12
Skewness	4.521	7.069	5.265	4.195
Std. Error of Skewness	0.241	0.241	0.241	0.241
Kurtosis	23.031	53.462	27.948	17.199
Std. Error of Kurtosis	0.478	0.478	0.478	0.478
Minimum	6	50	10	100
Maximum	5000	1110675	40000	9000000

By looking at the histograms, it can be inferred that the total assets and numbers of the employee from both provinces were skewed distribution. K-S test shows that variables were not a normal distribution. Hence, the Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The results are reported below.

Figure A10
Independent-Samples Mann-Whitney U Test (firm size)



Total N	200
Mann-Whitney U	6,484.500
Wilcoxon W	11,534.500
Test Statistic	6,484.500
Standard Error	408.945
Standardized Test Statistic	3.630
Asymptotic Sig. (2-sided test)	.000



Total N	200
Mann-Whitney U	7,752.500
Wilcoxon W	12,802.500
Test Statistic	7,752.500
Standard Error	409.036
Standardized Test Statistic	6.729
Asymptotic Sig. (2-sided test)	.000

The P value was 0.00 for both total assets and number of the employee so that the null hypothesis can be rejected. Hence, there were significant differences in firm size between Zhejiang and Yunnan.

2.4.3 Predominant industries of sampled firms: significant difference

Table A11
The predominant industries of sampled firms

Sector	Light Industry		Heavy Industry		Total
	agricultural raw materials	non-agricultural raw materials	raw material	process manufacturing	
Zhejiang	48	5	6	41	100
Yunnan	20	10	23	47	100
Total	68	15	29	88	200

For analysing nominal data, crosstab was used to run the Chi-squared, which was performed to evaluate if there were significant differences in categorical data.

Table A12
Chi-Square Tests (predominant industries of sampled firms)

	Value	df	Asymp. Sig (2-sided)
Pearson Chi-Square	70.826 ^a	11	0
Likelihood Ratio	80.263	11	0
Linear-by-Linear Association	1.670	1	0.196
N of Valid Cases	200		

6 cells (25.0%) have expected count less than 5. The minimum expected count is 2.

The P-value of the Pearson Chi-square test was 0.00, so that the null hypothesis can be rejected. Hence, there were significant differences in predominant industries between Zhejiang and Yunnan.

2.4.4 Firm Types (registration categories): significant difference

Table A13
The registration categories of sampled firms

	registration category			Total
	SOEs	Private firms	Foreign and HK funded firms	
Zhejiang	0	96	4	100
Yunnan	29	63	8	100
Total	29	159	12	200

Table A14
Chi-Square Tests (registration categories of sampled firms)

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square		53.83 ^a	8	0	0		
Likelihood Ratio		68.768	8	0	0		
Fisher's Exact Test	Exact	59.399			0		
Linear-by-Linear Association		12.36 ^b	1	0	0	0	0
N of Valid Cases		200					

a. 12 cells (66.7%) have expected count less than 5. The minimum expected count is 50.

b. The standardized statistic is -3.516.

The p-value of Fisher's Exact test was 0.00, so that the null hypothesis could be rejected. Hence, there were significant differences in firm types between Zhejiang and Yunnan.

2.4.5 Target markets of sampled firms: significant difference

Table A15
The target markets of sampled firms

	Target Market				Total
	Local Market	Adjacent Province Market	Domestic Market	Foreign Market	
Zhejiang	25	18	71	57	171
Yunnan	57	27	59	30	173
Total	82	45	130	87	344

For analysing data from multiple response questions, crosstab was used to run the Chi-squared test, which was performed to evaluate if there were significant differences in categorical data. The results list as below.

Table A16
Chi-Square Tests (target markets of sampled firms)

		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square		23.76 ^a	3	0	0		
Likelihood Ratio		24.255	3	0	0		
Fisher's Exact Test	Exact	23.967			0		

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Linear-by-Linear Association	23.59 ^b	1	0	0	0	0
N of Valid Cases	344					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 22.37.

b. The standardized statistic is -4.857.

P-value of the Pearson Chi-square test was 0.00, so that the null hypothesis could be rejected. Hence, there were significant differences in target markets between Zhejiang and Yunnan.

3 The market regulations and policies in Zhejiang and Yunnan

3.1 Applying for Business licence or Certification

The data collected from Single-select multiple-choice questions were analysed by using the Chi-square test.

Table A17
Is it convenient to obtain the basic required licence or qualifications for starting new businesses?

	No	Yes	Total
Zhejiang	13	87	100
Yunnan	16	84	100
Total	29	171	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	0.363 ^a	1	0.547		
Continuity Correction ^b	0.161	1	0.688		
Likelihood Ratio	0.364	1	0.547		
Fisher's Exact Test				0.689	0.344
Linear-by-Linear Association	0.361	1	0.548		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.50.

b. Computed only for a 2x2 table

Table A18
Whether are there specialized requirements for starting new businesses?

	No	Yes	Total
Zhejiang	80	20	100
Yunnan	38	62	100
Total	118	82	200

Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson	Chi-Square	36.461 ^a	1	0.000		
	Continuity Correction ^b	34.746	1	0.000		
	Likelihood Ratio	37.850	1	0.000		
	Fisher's Exact Test				0.000	0.000
	Linear-by-Linear Association	36.276	1	0.000		
N of Valid Cases		200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 41.00.

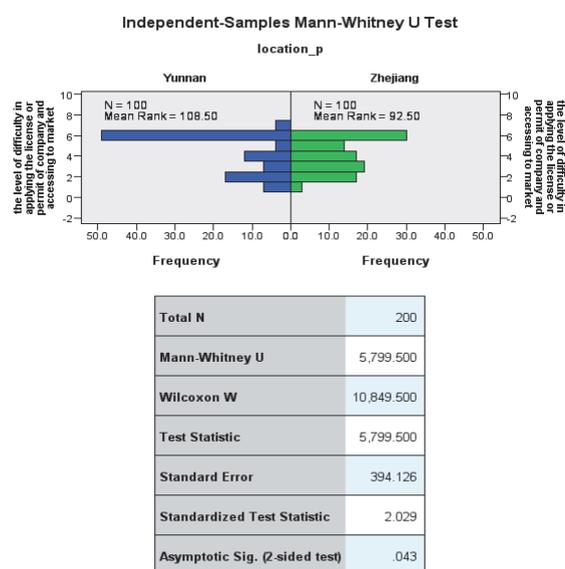
b. Computed only for a 2x2 table

Based on the results shows above, for the former question, the P-value of the Pearson Chi-square test was 0.547, so that the null hypothesis can be accepted, which means that there is no significant difference in obtaining a business license between Zhejiang and Yunnan. For the latter question, the P-value of the Pearson Chi-square test was 0.00, so we can reject the null hypothesis, meaning that Zhejiang and Yunnan show a significant difference in obtaining additional certifications or qualifications.

3.2 The Difficulty Levels of Accessing Market (Likert scale): significant difference

As the Likert scale data can be considered as the continuous variable, the normality test was run to exam if there were significant differences between two provinces.

Figure A11
Independent-Samples Mann-Whitney U Test (accessing market)



The variables in Zhejiang and Yunnan were skewed distribution, and the K-S test shows that variables were not a normal distribution. Therefore, the Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The p-value was 0.043, so that the null hypothesis could be rejected. Hence, there were significant difference in the difficulty level of accessing market between Zhejiang and Yunnan.

3.3 Entry barriers: no significant difference

For analysing data from multiple response questions, crosstab was used to run the Chi-squared test, which was performed to evaluate if there were significant differences in categorical data. The results list as below.

Table A19
Entry barriers

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Application process for license	3	3.6%	8	10.4%
Application process for permit or qualification	3	3.6%	9	11.7%
Specific prescribed requirements or political discrimination for private enterprise	2	2.4%	0	0.0%
Registered capital	1	1.2%	0	0.0%
Commercial credit	1	1.2%	2	2.6%

Manufacturing technique	18	21.7%	12	15.6%
Requirement on sanitation certification and technique and equipment for environmental protection	19	22.9%	9	11.7%
Regional protectionism	0	0.0%	1	1.3%
Monopolies	4	4.8%	7	9.1%
Intense competition	64	77.1%	68	88.3%
Total	115		116	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	15.31 ^a	9	.083	.052		
Likelihood Ratio	17.188	9	.046	.064		
Fisher's Exact Test	14.649			.057		
Linear-by-Linear Association	.417 ^b	1	.519	.521	.268	.015
N of Valid Cases	231					

a. 8 cells (40.0%) have expected count less than 5. The minimum expected count is .50.

b. The standardized statistic is -.646.

The p-value of Fisher's Exact test was 0.57, so that the null hypothesis could not be rejected. Hence, there was no significant difference in entry barriers between Zhejiang and Yunnan.

3.4 Entry incentives: significant difference

Table A20
Entry incentives

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Application process for license	7	9.0%	2	3.8%
Permit and qualification	7	9.0%	1	1.9%
No specific prescribed requirements or political discrimination	6	7.7%	1	1.9%
Reasonable threshold of registered capital	17	21.8%	3	5.7%
No specific requirement on commercial credit	2	2.6%	0	0.0%
Attainable threshold of manufacturing technique	17	21.8%	4	7.5%
Attainable requirement on sanitation certification and technique for environmental protection	2	2.6%	4	7.5%
No regional protectionism	2	2.6%	2	3.8%

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Fair market competition	23	29.5%	9	17.0%
High market potential	48	61.5%	47	88.7%
Total	131		73	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	22.86 ^a	9	.007	.004		
Likelihood Ratio	24.526	9	.004	.007		
Fisher's Exact Test	21.590			.005		
Linear-by-Linear Association	14.01 ^b	1	.000	.000	.000	.000
N of Valid Cases	204					

a. 10 cells (50.0%) have expected count less than 5. The minimum expected count is .72.

b. The standardized statistic is 3.743.

P-value of the Fisher's Exact test was 0.05, so that the null hypothesis can be rejected. Hence, there were significant differences in entry incentives between Zhejiang and Yunnan.

Table A21
Other factors of entry incentives

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Family business	7	15.9%	0	0.0%
Familiar with business	32	72.7%	15	24.2%
A complete industrial chain	5	11.4%	1	1.6%
Favourable investment policy	4	9.1%	13	21.0%
State development plan	5	11.4%	21	33.9%
Supporting enterprises	4	9.1%	5	8.1%
Abundant resources	1	2.3%	25	40.3%
Total	58		80	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	50.47 ^a	6	.000	.000		
Likelihood Ratio	58.665	6	.000	.000		
Fisher's Exact Test	53.466			.000		

Linear-by-Linear Association	40.81 ^b	1	.000	.000	.000	.000
N of Valid Cases	138					

a. 5 cells (35.7%) have expected count less than 5. The minimum expected count is 2.52.

b. The standardized statistic is 6.388.

P-value of the Pearson Chi-square test was 0.00, so that the null hypothesis could be rejected. Hence, there were significant difference in other factors of entry incentives between Zhejiang and Yunnan.

3.5 Supporting policies: significant difference

Table A22
Supporting policies

	Count	Zhejiang % within location	Count	Yunnan % within location
Green Passage	13	23.2%	4	5.0%
Reducing or waiving procedures or prescribed fees	7	12.5%	4	5.0%
Tax concession	25	44.6%	63	78.8%
Local government provided free collateral loans	3	5.4%	1	1.3%
Local government offered funds	27	48.2%	20	25.0%
Local government offered concessional rent for land or equipment	15	26.8%	21	26.3%
Local government offered subsidies for R&D	12	21.4%	33	41.3%
Total	102		146	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	27.91 ^a	6	.000	.000		
Likelihood Ratio	28.247	6	.000	.000		
Fisher's Exact Test	27.591			.000		
Linear-by-Linear Association	2.628 ^b	1	.105	.109	.056	.008
N of Valid Cases	248					

a. 3 cells (21.4%) have expected count less than 5. The minimum expected count is 1.65.

b. The standardized statistic is 1.621.

P-value of the Pearson Chi-square test was 0.00, so that the null hypothesis could be rejected. Therefore, there were significant differences in supporting policies between Zhejiang and Yunnan.

3.6 Public service: significant difference

Table A23
Public service

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Convenient transportation	86	86.9%	56	64.4%
Sufficient electricity supply	92	92.9%	73	83.9%
Internet access	12	12.1%	4	4.6%
Sufficient gas supply	1	1.0%	0	0.0%
Sufficient water supply	68	68.7%	69	79.3%
Regular employee training projects	12	12.1%	1	1.1%
Convenient public facilities like schools, hospitals, commercial center, etc.	3	3.0%	2	2.3%
Total	274		205	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	13.38 ^a	6	.037	.026		
Likelihood Ratio	15.356	6	.018	.021		
Fisher's Exact Test	13.728			.021		
Linear-by-Linear Association	.491 ^b	1	.484	.491	.250	.017
N of Valid Cases	479					

a. 4 cells (28.6%) have expected count less than 5. The minimum expected count is .43.

b. The standardized statistic is .700.

P-value of the Pearson Chi-square test was 0.037, so that the null hypothesis could be rejected. Therefore, there were significant difference in supporting public services between Zhejiang and Yunnan.

3.7 Pricing principals: significant difference

Table A24
Pricing principals

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Local government provides guideline	1	1.0%	16	16.0%
Market price	66	66.0%	57	57.0%
Cost of the products	62	62.0%	50	50.0%
Agreements between companies	10	10.0%	1	1.0%
Target profit	34	34.0%	26	26.0%
Contract between firm and buyer	27	27.0%	17	17.0%
Total	200		167	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	23.10 ^a	5	.000	.000		
Likelihood Ratio	26.846	5	.000	.000		
Fisher's Exact Test	24.547			.000		
Linear-by-Linear Association	5.502 ^b	1	.019	.020	.010	.002
N of Valid Cases	367					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.01.

b. The standardized statistic is -2.346.

P-value of the Pearson Chi-square test was 0.00, so that the null hypothesis could be rejected. Thus, there were significant differences in pricing principals between Zhejiang and Yunnan.

4 Ownership relations and non-ownership coordination in Zhejiang and Yunnan

4.1 Merge and acquisition activities: significant difference

Table A25
Merge and acquisition activities

	Firms have merged or acquired other companies		
	No	Yes	Total

Zhejiang	88	12	100
Yunnan	72	28	100
Total	160	40	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.000 ^a	1	0.005		
Continuity Correction ^b	7.031	1	0.008		
Likelihood Ratio	8.185	1	0.004		
Fisher's Exact Test				0.007	0.004
Linear-by-Linear Association	7.960	1	0.005		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.00.

b. Computed only for a 2x2 table

	Firms have been merged or acquired by other companies		
	No	Yes	Total
Zhejiang	99	1	100
Yunnan	83	17	100
Total	182	18	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	15.629 ^a	1	0.000		
Continuity Correction ^b	13.736	1	0.000		
Likelihood Ratio	18.638	1	0.000		
Fisher's Exact Test				0.000	0.000
Linear-by-Linear Association	15.551	1	0.000		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.00.

b. Computed only for a 2x2 table

P-value of Pearson Chi-square test for both questions: firms have (been) merged or acquired were less than 0.05, so that the null hypothesis could be rejected. Hence, there were significant differences in M&A activities between Zhejiang and Yunnan.

4.2 Industry concentration level: significant difference

Are there at least 5 firms with the same business activity as your company in your city?

Table A26
Industry concentration level

	Is there at least 5 firms with the same business activity in city (unit)?		
	No	Yes	Total
Zhejiang	24	76	100
Yunnan	59	41	100
Total	83	117	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	25.229 ^a	1	0.000		
Continuity Correction ^b	23.808	1	0.000		
Likelihood Ratio	25.863	1	0.000		
Fisher's Exact Test				0.000	0.000
Linear-by-Linear Association	25.103	1	0.000		
N of Valid Cases	200				

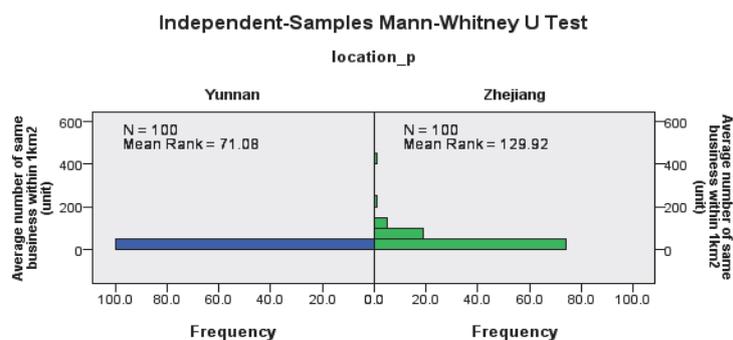
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 41.50.

b. Computed only for a 2x2 table

P value of Pearson Chi-square test was 0.00, so that the null hypothesis could be rejected. Therefore, there were significant differences in industry concentration level between Zhejiang and Yunnan.

How many companies with the same business as your company are there per km² within the same area?

Figure A12
Independent-Samples Mann-Whitney U Test (industry concentration level)



Total N	200
Mann-Whitney U	2,058.500
Wilcoxon W	7,108.500
Test Statistic	2,058.500
Standard Error	387.022
Standardized Test Statistic	-7.600
Asymptotic Sig. (2-sided test)	.000

K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.00, so that the null hypothesis could be rejected. Hence, there were significant differences between Zhejiang and Yunnan.

4.3 Production Chain (firm types) and Other Business activities

Table A27
Production chain and other business activities

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
To purchase components from SOEs	9	60.0%	35	53.8%
To purchase production equipment from SOEs	1	6.7%	18	27.7%

To outsource business to SOEs	4	26.7%	8	12.3%
Technical cooperation with SOEs	6	40.0%	41	63.1%
Research and development of products/processes/markets with SOEs	8	53.3%	39	60.0%
To share market resource with SOEs	2	13.3%	1	1.5%
To train workers with SOEs	3	20.0%	4	6.2%
Total	33		146	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	12.57 ^a	6	.050	.049		
Likelihood Ratio	11.241	6	.081	.102		
Fisher's Exact Test	11.660			.049		
Linear-by-Linear Association	.765 ^c	1	.382	.408	.207	.030
N of Valid Cases	179					

a. 5 cells (35.7%) have expected count less than 5. The minimum expected count is .55.

b. The standardized statistic is -.875.

The p-value of Pearson Chi-square test was 0.05, so that the null hypothesis could not be rejected. Hence, there was no significant difference between Zhejiang and Yunnan.

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
To purchase components from private firms	96	96.0%	91	92.9%
To purchase production equipment from private firms	89	89.0%	88	89.8%
To outsource business to private firms	55	55.0%	33	33.7%
Technical cooperation with private firms	25	25.0%	23	23.5%
Research and development of products/processes/markets with private firms	23	23.0%	17	17.3%
To share market resource with private firms	25	25.0%	4	4.1%
To train workers with private firms	8	8.0%	8	8.2%
Total	321		264	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	16.43 ^a	6	.012	.011		
Likelihood Ratio	18.056	6	.006	. ^b		
Fisher's Exact Test	. ^b			. ^b		
Linear-by-Linear Association	5.661 ^c	1	.017	.018	.009	.001
N of Valid Cases	585					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.22.

b. The standardized statistic is -2.379.

The p-value of Pearson Chi-square test was 0.012, so that the null hypothesis could be rejected, meaning that there were significant differences between Zhejiang and Yunnan.

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
To purchase components from foreign funded enterprises	14	48.3%	16	37.2%
To purchase production equipment from foreign funded enterprises	15	51.7%	32	74.4%
To outsource business to foreign funded enterprises	1	3.4%	2	4.7%
Technical cooperation with foreign funded enterprises	5	17.2%	6	14.0%
Research and development of products/processes/markets with foreign funded enterprises	6	20.7%	5	11.6%
To share market resource with foreign funded enterprises	3	10.3%	2	4.7%
To train workers with foreign funded enterprises	2	6.9%	0	0.0%
Total	46		63	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	6.504 ^a	6	.369	.386		
Likelihood Ratio	7.258	6	.298	.415		
Fisher's Exact Test	6.376			.374		
Linear-by-Linear Association	2.315 ^b	1	.128	.130	.073	.015
N of Valid Cases	109					

a. 8 cells (57.1%) have expected count less than 5. The minimum expected count is .84.

b. The standardized statistic is -1.522.

The p-value of Fisher's Exact test was 0.37, so that the null hypothesis could not be rejected, which means that there was no significant difference between Zhejiang and Yunnan.

4.4 The Long-term Partnership with Suppliers and Clients

Table A28
The Long-term Partnership with Suppliers and Clients

	Does your company have long-term partnership with suppliers?		
	No	Yes	Total
Zhejiang	13	87	100
Yunnan	4	96	100
Total	17	183	200

Chi-Square Tests	Value	df	Asymp. (2-sided) Sig.	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.207 ^a	1	0.022		
Continuity Correction ^b	4.114	1	0.043		
Likelihood Ratio	5.460	1	0.019		
Fisher's Exact Test				0.040	0.020
Linear-by-Linear Association	5.181	1	0.023		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.50.

b. Computed only for a 2x2 table

	Does your company have long-term partnership with clients?		
	No	Yes	Total
Zhejiang	9	91	100
Yunnan	8	92	100
Total	17	183	200

Chi-Square Tests	Value	df	Asymp. (2-sided) Sig.	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.064 ^a	1	0.800		

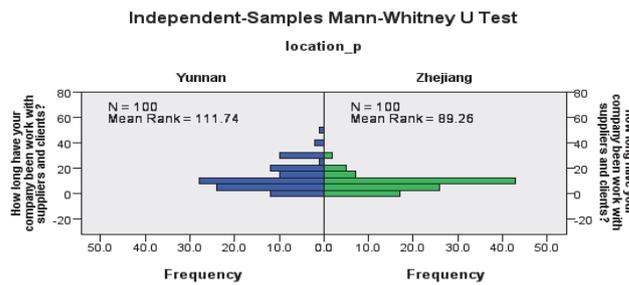
Continuity Correction ^b	.000	1	1.000	
Likelihood Ratio	.064	1	0.800	
Fisher's Exact Test				1.000 0.500
Linear-by-Linear Association	.064	1	0.800	
N of Valid Cases	200			

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.50.

b. Computed only for a 2x2 table

The p-value of Pearson Chi-square test of the long-term partnership with suppliers was 0.022, so that the null hypothesis could be rejected, which means that there were significant differences in the long-term partnership with suppliers between Zhejiang and Yunnan. However, the p-value of the long-term partnership with clients was 0.8, so that the null hypothesis could be accepted, which means that there was no significant difference in the long-term partnership with clients between Zhejiang and Yunnan.

Figure A13
Independent-Samples Mann-Whitney U Test (the long-term partnership)



Total N	200
Mann-Whitney U	6,124.500
Wilcoxon W	11,174.500
Test Statistic	6,124.500
Standard Error	403.747
Standardized Test Statistic	2.785
Asymptotic Sig. (2-sided test)	.005

K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.005, so that the null

hypothesis could be rejected. Hence, there were significant differences between Zhejiang and Yunnan.

4.5 The Ways of Inter-firm Coordination

Table A29
The Ways of Inter-firm Coordination

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Via the guided or supported from LGs	4	4.0%	12	12.0%
Via formal industrial association	5	5.0%	9	9.0%
Via informal negotiation between firms	100	100.0%	98	98.0%
Total	109		119	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	4.734 ^a	2	0.094	0.101		
Likelihood Ratio	4.926	2	0.085	0.101		
Fisher's Exact Test	4.644			0.101		
Linear-by-Linear Association	4.694 ^b	1	0.030	0.039	0.019	0.009
N of Valid Cases	228					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.69.

b. The standardized statistic is -2.167.

The P value was 0.094, so that the null hypothesis could not be rejected, meaning that there was no significant difference in the ways of inter-firm coordination between Zhejiang and Yunnan.

4.6 Production Chain (locations)

Table A30
Production Chain (locations)

To purchase components				
	Local market	National market	Overseas market	Total
Zhejiang	63	42	15	120
Yunnan	75	59	18	152
Total	138	101	33	272

Chi-Square Tests							
		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	Chi-Square	.419 ^a	2	0.811	0.805		
Likelihood Ratio		0.420	2	0.811	0.805		
Fisher's Exact Test	Exact	0.439			0.805		
Linear-by-Linear Association		.087 ^b	1	0.768	0.792	0.419	0.067
N of Valid Cases		272					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.56.

b. The standardized statistic is .295.

To purchase equipment				
	Local market	National market	Overseas market	Total
Zhejiang	58	42	15	115
Yunnan	31	84	30	145
Total	89	126	45	260

Chi-Square Tests							
		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	Chi-Square	24.05 ^a	2	.000	.000		
Likelihood Ratio		24.221	2	.000	.000		
Fisher's Exact Test	Exact	23.951			.000		
Linear-by-Linear Association		17.68 ^b	1	.000	.000	.000	.000
N of Valid Cases		260					

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.90.

b. The standardized statistic is 4.205.

		To outsource business at:				
		Local market	National market	Overseas market	Total	
Zhejiang		49	6	1	56	
Yunnan		32	9	3	44	
Total		81	15	4	100	

Chi-Square Tests		Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	Chi-Square	3.782 ^a	2	0.811	0.805		
Likelihood Ratio		3.802	2	0.811	0.805		
Fisher's Test	Exact	3.684			0.805		
Linear-by-Linear Association		3.722 ^b	1	0.768	0.792	0.419	0.067
N of Valid Cases		100					

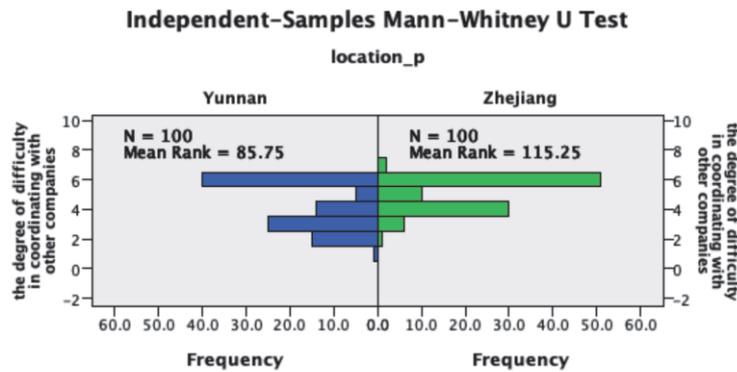
a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is 1.76.

b. The standardized statistic is 1.929.

Based on the results of Pearson Chi-square test, locations to purchase components and to outsource business in Zhejiang and Yunnan had no significant difference ($p\text{-value} > 0.05$); while the locations to purchase equipment between Zhejiang and Yunnan showed significant differences ($p\text{-value} = 0.00$).

4.7 The Difficulty Level of Inter-firm Coordination (Likert scale): significant difference

Figure A14
Independent-Samples Mann-Whitney U Test (inter-firm coordination)



Total N	200
Mann-Whitney U	3,525.500
Wilcoxon W	8,575.500
Test Statistic	3,525.500
Standard Error	386.215
Standardized Test Statistic	-3.818
Asymptotic Sig. (2-sided test)	.000

By looking at the histograms, it can be inferred that variables in Zhejiang and Yunnan were skewed distribution. And K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.00, so that the null hypothesis could be rejected. Hence, there were significant differences in the difficulty levels of inter-firm coordination between Zhejiang and Yunnan.

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.833	-3.675	-2.969	-2.617
MacKinnon approximate p-value for Z(t) = 0.0026				
Yunnan				
Dickey-Fuller test for unit root		Number of obs= 36		
-----Interpolated Dickey-Fuller-----				
	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.228	-3.682	-2.969	-2.617
MacKinnon approximate p-value for Z(t) = 0.0184				

By using the new generated stationary variables, two-sample independent t test were run to test if there were significant differences between Zhejiang and Yunnan.

Table A32

Two-sample t test with equal variances (The loans from Financial instructions)

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
dlnout-z	37	0.1979	0.0121	0.0733	0.1735 0.2224
d2lnou-y	37	0.1761	0.0128	0.0781	0.1500 0.2021
combined	74	0.1870	0.0088	0.0760	0.1694 0.2046
diff		0.0218	0.0176		0.0133 0.0569
diff = mean(dlnloans_Z) - mean(dlnloans_Y)					t = 1.2401
Ho: diff = 0					degrees of freedom = 72
Ha: diff < 0		Ha: diff != 0		Ha: diff > 0	
Pr(T < t) = 0.8905		Pr(T > t) = 0.2190		Pr(T > t) = 0.1095	

The result shows that the difference in means was estimated as 0.02 with a 95% confidence interval from 0.13 to 0.57. The two-tailed p value was 0.22, so that there was no significant difference between Zhejiang and Yunnan's.

5.2 Source of Finance: significant difference

Table A33
Source of finance

	Count	Zhejiang % within location	Count	Yunnan % within location
Internal funds/retained earnings	97	97.0%	99	99.0%
Owner' contribution or issued new equity shares	2	2.0%	13	13.0%
New debt issuances including commercial paper and debentures	3	3.0%	7	7.0%

Bank borrowing	66	66.0%	77	77.0%
Purchases on credit from suppliers and advances from customers	12	12.0%	4	4.0%
Borrowing from informal financial institutions	11	11.0%	0	0.0%
Borrowing from friends or relatives	17	17.0%	3	3.0%
Local government investment	1	1.0%	3	3.0%
Local government loan	1	1.0%	1	1.0%
Foreign funds	0	0.0%	1	1.0%
Total	210		208	

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	37.33 ^a	9	.000	.000		
Likelihood Ratio	44.203	9	.000	. ^b		
Fisher's Exact Test	39.373			.000		
Linear-by-Linear Association	5.221 ^c	1	.022	.023	.012	.001
N of Valid Cases	418					

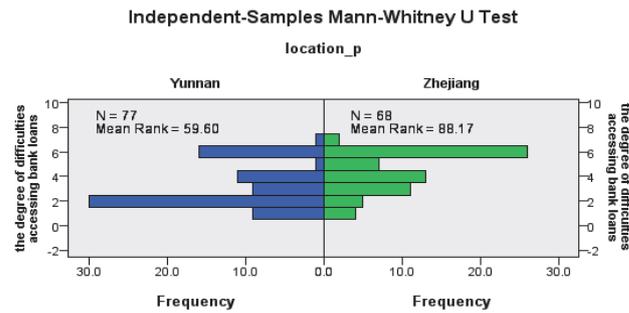
a. 7 cells (35.0%) have expected count less than 5. The minimum expected count is .50.

b. The standardized statistic is -2.285.

P value of Fisher's Exact test was 0.00, so that we could reject the null hypothesis. Hence, there were significant differences in source of finance between Zhejiang and Yunnan.

5.3 The Difficulty Level of Accessing Bank Loans (Likert Scale): significant difference

Figure A17
Independent-Samples Mann-Whitney U Test (accessing bank loans)

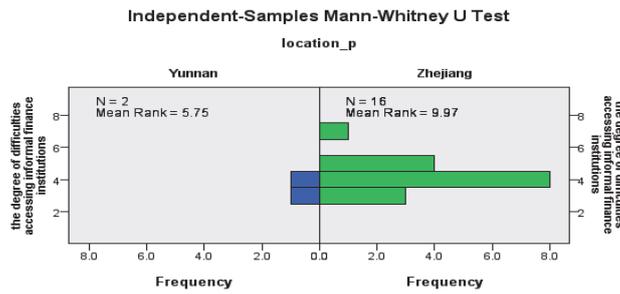


Total N	145
Mann-Whitney U	1,586.500
Wilcoxon W	4,589.500
Test Statistic	1,586.500
Standard Error	246.476
Standardized Test Statistic	-4.185
Asymptotic Sig. (2-sided test)	.000

By looking at the histograms, it can be inferred that variables in Zhejiang and Yunnan were skewed distribution. The K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.00, so that the null hypothesis could be rejected. Hence, there were significant differences in the difficulty level of accessing bank loans between Zhejiang and Yunnan.

5.5 The Difficulty Level of Accessing Informal Finance Institutions (Likert Scale): no significant difference

Figure A18
Independent-Samples Mann-Whitney U Test (accessing informal finance institutions)



Total N	18
Mann-Whitney U	8.500
Wilcoxon W	11.500
Test Statistic	8.500
Standard Error	6.584
Standardized Test Statistic	-1.139
Asymptotic Sig. (2-sided test)	.255
Exact Sig. (2-sided test)	.327

By looking at the histograms, it can be inferred that variables in Zhejiang and Yunnan were skewed distribution. And K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.26, so that the null hypothesis could not be rejected. Thus, there was no significant difference in the difficulty level of accessing informal finance institution between Zhejiang and Yunnan. However, due to the small sample size, the results should be reconsidered.

6 The State-Business Relationship in Zhejiang and Yunnan

6.1 Business Associations

Table A34
The business associations

Whether the industry sector, which firm belongs to, has already had local business association?			
	No	Yes	Total
Zhejiang	18	82	100
Yunnan	39	61	100
Total	57	143	200

Chi-Square Tests	Value	df	Asymp. (2-sided) Sig.	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	10.821 ^a	1	0.001		
Continuity Correction ^b	9.815	1	0.002		
Likelihood Ratio	11.017	1	0.001		
Fisher's Exact Test				0.002	0.001
Linear-by-Linear Association	10.767	1	0.001		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.50.

b. Computed only for a 2x2 table

Are there requirements for joining the association?			
	No	Yes	Total
Zhejiang	75	25	100
Yunnan	78	22	100
Total	153	47	200

Chi-Square Tests	Value	df	Asymp. (2-sided) Sig.	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	0.250 ^a	1	0.617		
Continuity Correction ^b	0.111	1	0.739		
Likelihood Ratio	0.250	1	0.617		
Fisher's Exact Test				0.739	0.369
Linear-by-Linear Association	0.249	1	0.618		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 23.50.

b. Computed only for a 2x2 table

	Do you have the membership of the business association?		
	No	Yes	Total
Zhejiang	49	51	100
Yunnan	40	60	100
Total	89	111	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.640 ^a	1	0.200		
Continuity Correction ^b	1.296	1	0.255		
Likelihood Ratio	1.642	1	0.200		
Fisher's Exact Test				0.255	0.127
Linear-by-Linear Association	1.632	1	0.201		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 44.50.

b. Computed only for a 2x2 table

Based on the results of Pearson Chi-square test, numbers of business association between Zhejiang and Yunnan showed significant differences (p-value: 0.001); while the data collected from question about requirements of entering business association and whether firm has the membership of the association showed that there was no significant difference between Zhejiang and Yunnan.

6.2 Business-State Collaboration

Table A35
Business-State Collaboration

	Is there cooperation between the local governments and your firm?		
	No	Yes	Total
Zhejiang	91	9	100
Yunnan	60	40	100
Total	151	49	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	25.976 ^a	1	0.000		
Continuity Correction ^b	24.328	1	0.000		
Likelihood Ratio	27.600	1	0.000		
Fisher's Exact Test				0.000	0.000
Linear-by-Linear Association	25.847	1	0.000		
N of Valid Cases	200				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 24.50.

b. Computed only for a 2x2 table

Based on the result of Pearson Chi-square test, p value was 0.00, so we could reject the null hypothesis, which means there were significant differences in business-state collaboration between Zhejiang and Yunnan.

	Zhejiang	Yunnan	Total
Infrastructure construction	5	28	33
Market development	2	7	9
Technical cooperation	4	18	22
Research and development of products	4	19	23
Training and education	4	4	8
Total	19	76	95

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	5.156 ^a	4	0.272	0.282		
Likelihood Ratio	4.264	4	0.371	0.472		
Fisher's Exact Test	4.65			0.311		
Linear-by-Linear Association	1.758 ^b	1	0.185	0.199	0.11	0.031
N of Valid Cases	95					

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is 1.60.

b. The standardized statistic is -1.326.

Tables above shows that there was no significant difference in the types of business-state collaboration activities between Zhejiang and Yunnan (p-value>0.05).

6.3 Party Committees: significant difference

Table A36
Party committees

	Is there party committee being established in your firm?		
	No	Yes	Total
Zhejiang	69	31	100
Yunnan	33	67	100
Total	102	98	200

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	25.930 ^a	1	0.000		
Continuity Correction ^b	24.510	1	0.000		
Likelihood Ratio	26.523	1	0.000		
Fisher's Exact Test				0.000	0.000
Linear-by-Linear Association	25.801	1	0.000		
N of Valid Cases	200				

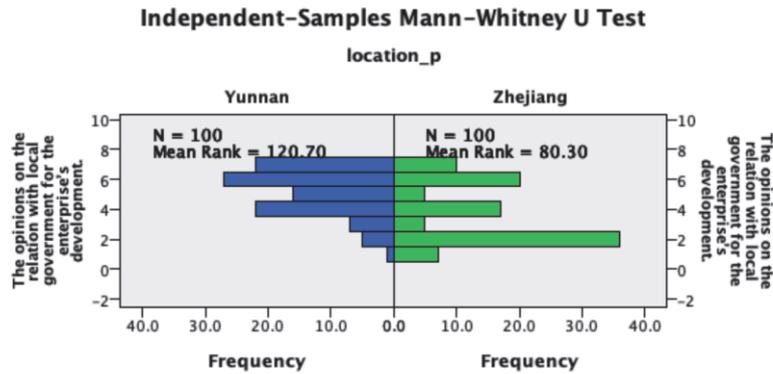
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 49.00.

b. Computed only for a 2x2 table

The p-value was 0.00, so we could reject the null hypothesis. Therefore, there were significant differences in sampled firms' party committees between Zhejiang and Yunnan.

6.4 The Importance of Local Governments in the Enterprise’s Development (Likert scale): significant difference

Figure A19
Independent-Samples Mann-Whitney U Test (importance of LGs)



Total N	200
Mann-Whitney U	7,020.000
Wilcoxon W	12,070.000
Test Statistic	7,020.000
Standard Error	402.142
Standardized Test Statistic	5.023
Asymptotic Sig. (2-sided test)	.000

By looking at the histograms, it can be inferred that variables in Zhejiang and Yunnan were skewed distribution. And K-S test showed that variables were not normal distribution, so that Independent Samples Mann-Whitney U test was run to test if there were significant differences between Zhejiang and Yunnan. The P value was 0.00, so that the null hypothesis could be rejected. Therefore, there were significant differences in the importance of local governments in the firm’s development between Zhejiang and Yunnan.

6.5 Major Constrains: significant difference

Table A37
Major constraints

	Zhejiang		Yunnan	
	Count	% within location	Count	% within location
Excessive Competition	11	18.3%	22	26.8%
Floundering Economy	16	26.7%	16	19.5%
Overcapacity	3	5.0%	15	18.3%
Fluctuation in Exchange Rate	5	8.3%	3	3.7%
Shortage of Talent	6	10.0%	4	4.9%
Difficulty in Updating	7	11.7%	9	11.0%
High Cost of Labor Force	7	11.7%	11	13.4%
Shortage of Labor Force	2	3.3%	1	1.2%
Lack of Capital	8	13.3%	21	25.6%
Outdated Traditional Industry	5	8.3%	3	3.7%
Depressed Housing Market	6	10.0%	10	12.2%
Plant expansion	23	38.3%	9	11.0%
Rules and Regulations	4	6.7%	18	22.0%
Heavy Tax	11	18.3%	6	7.3%
Inadequate of Supporting Industry	0	0.0%	13	15.9%
Total	114		161	

Chi-Square Tests			Pearson Chi-Square	Likelihood Ratio	Fisher's Exact Test	Linear-by-Linear Association	N of Valid Cases
Value			44.127 ^a	49.838	45.777	.054 ^c	275
df			14	14		1	
Asymp. Sig. (2-sided)			.000	.000		0.817	
Monte Carlo Sig. (2-sided)	Sig.		.000 ^b	.000 ^b	.000 ^b	.845 ^b	
	99% Confidence Interval	Lower Bound	0	0	0	0.779	
		Upper Bound	0.023	0.023	0.023	0.911	
Monte Carlo Sig. (1-sided)	Sig.					.455 ^b	
	99% Confidence Interval	Lower Bound				0.364	
		Upper Bound				0.546	

a. 7 cells (23.3%) have expected count less than 5. The minimum expected count is 1.24.

b. Based on 200 sampled tables with starting seed 2000000.

c. The standardized statistic is -.232.

The p-value of Exact test was 0.00, so that the null hypothesis could be rejected. Hence there were significant differences in major constrains between Zhejiang and Yunnan.

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About the Author

Zhen Lu was born in Yunnan, China. She graduated from Yunnan University with a bachelor's degree in Economics with a specialization in Finance in 2009. In the same year, she enrolled in the Graduate School of Business, Economics, and Law at the University of Gothenburg in Sweden. Here, she received the degree of Master of Science in Economics with specialization in Industrial Economics in 2011. Her interest in economics led her to pursue a Ph.D. in the International Institute of Social Studies (ISS), part of Erasmus University Rotterdam, in 2012.

Zhen 's research focuses on understanding the evolutionary development trajectories, the coordination mechanisms among economic actors and institutions within specific economic and institutional arrangements, regional disparities especially in the heterogeneous transitional economies.

