Economic Linkages of China’s Small Towns:

Urban-rural Integration in a Learning Economy

A thesis submitted to The University of Manchester for the degree of PhD in Planning

in the Faculty of Humanities

2016

Miao Qiao

School of Environment, Education and Development
Dedicated to

Manchester, so much to answer for
Chapter 1  Introduction

Urban-Rural Integration in China: challenges from dualism, diversity, and uncertainty

Dualism: institutional discrimination against rural areas

Diversity: no one-size-fits-all answer

Uncertainty: competing in a learning economy

Research Significance: a rural-centred, place-based, and process-oriented approach towards urban-rural integration
Aim and Objectives  23

Thesis Structure  25

Chapter 2  Literature Review  27

Urban-Rural Classification and Definition of Small Towns  29
  Urban-rural classification and urban-rural linkages  29
  Definition of small towns  31
  Function of small towns as central places  32

Economic Linkages in Growth Pole Theory: spread and backwash effects  36
  Growth poles and urban centres  36
  Spread and backwash effects of growth poles  37
  Application of growth pole strategy and its limitations  39

Economic Linkages in Production Network: chains, clustering and coupling  41
  Globalisation and the emergence of specialised regions  41
  Production network and Industrial districts  43
  The bright and dark side of strategic coupling  48
  The elements of locational advantage and cluster effects  50
  Supporting system for cluster  54

Economic Linkages in Learning Region: interaction and learning  55
  Learning economies and innovation  56
  Learning region: locational characteristics of innovative activities  57
  Elements of learning and absorptive capacity  60
Economies of association
Learning economy in rural areas
Critical discussion: conceptualising economic linkages in territorial economic system

Chapter 3 Urban-Rural Relations in China

Two Chinas in the Maoist era: urban China and rural China
City and county: urban and rural administration
Industrial urban and agricultural rural: urban-rural division of labour

Reform and urban-rural conditions
The rural as the pioneer of reform
Deepening reform and rural-urban development
Staggering towards balanced urban-rural relations

Conclusions: challenges to urban-rural integration

Chapter 4 Conceptual Framework and Research Methodology

The Construction and Application of the Conceptual Framework
The conceptual framework
Interactive situations: situational cases for economic linkages

Research Methodology
Methodological design: comparative case studies
Case selection 165
Data collection and processing 169

Chapter 5  The Economic Linkages of Small Towns (1): learning-based development in Kunshan 173

Introduction: the development stage approach 173

Regional Contexts of Kunshan: persistent authoritarianism in Jiangsu 174

The Economic Linkages of Kunshan 179

Initial industrialisation (mid-1970s to late-1980s): locational advantage and linkages with Shanghai 180

Catching-up (early-1990s to early-2000s): foreign investment and Economic Development Zone 192

Adjustment (early 2000s to late 2000s): diversification and upgrading of FDI 199

Restructuring (late 2000s until present): technological innovation and attraction of talents 203

Conclusions 219

Chapter 6  The Economic Linkages of Small Towns (2): learning-based development in Shunde 221

Regional Contexts of Shunde: pioneering spirits in Guangdong 221

The Economic Linkages of Shunde 225
Liberating the economy (mid-1970s to late-1980s): industrialisation and TVE development

Modernising the economy (early-1990s to early-2000s): marketisation and service-oriented government

Reorganising the economy (early-2000s to late-2000s): regional branding and intermediate organisations

Restructuring the economy (since late-2000s): integration of industrial and urban development

Conclusions

Chapter 7  Development Models of Learning-based TES

Introduction

A Critical Discussion of Economic Linkages of Small Towns

Key findings related to the research questions

Key implications of the empirical findings

LTES Models of Kunshan and Shunde: Bridging Theories and Practices

LTES model: towards coherent interactive situations in problem-solving

The Kunshan Model: positioning, coalition building, and operation

The Shunde Model: monitoring, matching, and mediation

Summary and comparison of the two development models

Policy implications

The objective of policy
Chapter 8  Conclusions

Theoretical reflections on economic linkages

The nature of development problems 300

The approach to organisation 301

The geography of development 302

Research limitations

Economic focus 305

The research breadth and depth 306

The methodological issues 307

Future research agenda 308

Bibliography 309

Appendixes 328

(Word count: 80,747)
List of figures

Figure 2.1 A virtuous circle model of rural-urban development .................................................34
Figure 2.2 Strategic coupling in GPN.......................................................................................49
Figure 2.3 Sources of locational competitive advantage ..........................................................52
Figure 2.4 the holy trinity of reflexive turn .............................................................................58
Figure 3.1 Hierarchy of territorial administration in China.........................................................75
Figure 3.2 Urban-rural classification in China ...........................................................................78
Figure 4.1 The Conceptual Framework of Learning-based TES..................................................130
Figure 4.2 A formula of problem solving ..................................................................................131
Figure 4.3 Types of knowledge in the different steps of problem solving .................................135
Figure 4.4 Interactive situations of the knowledge system.........................................................146
Figure 4.5 Interactive situations of the organisational system ...................................................150
Figure 4.6 Interactive dimension of the territorial system .........................................................154
Figure 4.7 Location of Kunshan ...............................................................................................167
Figure 4.8 Location of Shunde ..................................................................................................168
Figure 5.1 Percentage of industrial output in selected years (Kunshan).....................................181
Figure 5.2 Ownership structure of industrial output (Kunshan) ...............................................183
Figure 5.3 Ownership structure of industrial output in EDZ (Kunshan), 1990 ..........................193
Figure 5.4 Contracted FDI in Kunshan in selected years .........................................................195
Figure 6.1 Sectoral structure in Shunde, 2005 (by industrial output) .........................................249
Figure 6.2 Proportion of CC members by origins .....................................................................257
Figure 6.3 the locations of industrial parks in Shunde ..............................................................264
Figure 7.1 Components of the LTES model ............................................................................281
Figure 7.2 Interactive situations in the Kunshan Model ............................................................282
Figure 7.3 Interactive situations in the Shunde Model ..............................................................286
List of tables

Table 2.1 ESPON urban-rural classification.................................................................................29
Table 4.1 Types of Knowledge........................................................................................................134
Table 4.2 Basic information about Kunshan and Shunde.................................................................166
Table 4.3 Basic information about Jiangsu and Guangdong ...............................................................167
Table 4.4 Key interview questions by type of organisation.................................................................171
Table 5.1 the portion of industrial output in selected years (Unit: ten thousand yuan).................181
Table 5.2 Economic statistics of EDZ (Kunshan) in early years.......................................................188
Table 5.3 Locational attributes of collaboration..............................................................................190
Table 5.4 Types of Collaboration .....................................................................................................191
Table 5.5 Number of collaboration projects by sector.......................................................................192
Table 5.6 the concentration of IT industry in Kunshan ....................................................................197
Table 5.7 Leading firms in new panel display sector featuring domestic ownership......................202
Table 5.8 Ownership structure of industry in Kunshan....................................................................204
Table 5.9 Ratios of Export growth to GDP growth ..........................................................................204
Table 5.10 Targeted strategic emerging sectors by Kunshan government and central government ..........................................................207
Table 5.11 Number of talents in major county-level cities in Jiangsu...............................................208
Table 5.12 Targets of talent attraction in Kunshan..........................................................................211
Table 5.13 Targets of talents attraction for important sectors ............................................................212
Table 5.14 Living costs subsidies for talents in Kunshan.................................................................213
Table 5.15 List of affiliated organisations of KSITRI ....................................................................218
Table 6.1 Specialised towns and regional brands in Shunde .............................................................248
Table 6.2 Lists of activities of CC-public ..........................................................................................256
Table 6.3 industrial policy strategies in 12th FYP of Shunde ..........................................................260
Table 6.4 Public technological service platforms in Shunde............................................................262
Table 6.5 Urban policy strategies in the 12th FYP of Shunde..............................265

Table 7.1 A Summary of the Kunshan Model and the Shunde Model.........................292
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMOLED</td>
<td>Active Matrix Organic Light Emitting Display</td>
</tr>
<tr>
<td>APC</td>
<td>Agricultural Production Co-operative</td>
</tr>
<tr>
<td>BASB</td>
<td>Bank of Agriculture Shunde Branch</td>
</tr>
<tr>
<td>CBE</td>
<td>Commune and Brigade Enterprise</td>
</tr>
<tr>
<td>CC</td>
<td>Consulting Committee</td>
</tr>
<tr>
<td>CCP</td>
<td>Chinese Communist Party</td>
</tr>
<tr>
<td>CNC</td>
<td>Computer Numerical Control</td>
</tr>
<tr>
<td>DPP</td>
<td>Democratic Progressive Party</td>
</tr>
<tr>
<td>C-R</td>
<td>Conventional-Relational</td>
</tr>
<tr>
<td>EDZ</td>
<td>Economic Development Zone</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FIE</td>
<td>Foreign Invested Enterprise</td>
</tr>
<tr>
<td>FYP</td>
<td>Five Year Plan</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GPN</td>
<td>Global Production Network</td>
</tr>
<tr>
<td>GREMI</td>
<td>Groupement de Recherche Européen sur les Milieux Innovateurs</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resource</td>
</tr>
<tr>
<td>HSD</td>
<td>Hub-and-Spoke District</td>
</tr>
<tr>
<td>ISIC</td>
<td>Industrial Service and Innovation Centre</td>
</tr>
<tr>
<td>KETD</td>
<td>Kunshan Economic and Technological Development Zone</td>
</tr>
<tr>
<td>KSITRI</td>
<td>Kunshan Industrial Technology Research Institute</td>
</tr>
<tr>
<td>LFR</td>
<td>Less Favoured Region</td>
</tr>
<tr>
<td>LIS</td>
<td>Local Innovation System</td>
</tr>
<tr>
<td>LTES</td>
<td>Learning-based Territorial Economic System</td>
</tr>
<tr>
<td>MID</td>
<td>Marshallian Industrial District</td>
</tr>
<tr>
<td>MITI</td>
<td>Ministry of International Trade and Industry</td>
</tr>
<tr>
<td>MNC</td>
<td>Multinational Corporation</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
</tr>
<tr>
<td>OLED</td>
<td>Organic Light-Emitting Diode</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>RCC</td>
<td>Rural Credit Cooperative</td>
</tr>
<tr>
<td>SASAC</td>
<td>State Asset Supervision and Administration Commission</td>
</tr>
<tr>
<td>SBSE</td>
<td>Shunde Business School for Entrepreneur</td>
</tr>
<tr>
<td>SD</td>
<td>State-anchored District</td>
</tr>
<tr>
<td>SDV</td>
<td>Scientific Development Viewpoint</td>
</tr>
<tr>
<td>SEZ</td>
<td>Special Economic Zone</td>
</tr>
<tr>
<td>SIP</td>
<td>Satellite Industrial Platform</td>
</tr>
<tr>
<td>SIP</td>
<td>Suzhou Industrial Park</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium-sized Enterprise</td>
</tr>
<tr>
<td>SOC</td>
<td>System On Chip</td>
</tr>
<tr>
<td>SOE</td>
<td>State-Owned Enterprise</td>
</tr>
<tr>
<td>SPC</td>
<td>State Planning Commission</td>
</tr>
<tr>
<td>SSIC</td>
<td>Shunde Social Innovation Centre</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>SSTC</td>
<td>State Science and Technology Commission</td>
</tr>
<tr>
<td>TES</td>
<td>Territorial Economic System</td>
</tr>
<tr>
<td>TFT-LCD</td>
<td>Thin-Film-Transistor Liquid-Crystal Display</td>
</tr>
<tr>
<td>TVE</td>
<td>Township and Village Enterprise</td>
</tr>
<tr>
<td>TVG</td>
<td>Township and Village Government</td>
</tr>
<tr>
<td>URDC</td>
<td>Urban Renewal Development Centre</td>
</tr>
<tr>
<td>YRD</td>
<td>Yangtze River Delta</td>
</tr>
</tbody>
</table>
Abstract

The University of Manchester

Miao Qiao
PhD in Planning

Economic linkages of China’s small towns: urban-rural integration in a learning economy

2016

As the problem of urban-rural inequality in China becomes increasingly severe, urban-rural integration has become a hot topic among both researchers and policymakers. However, to achieve urban-rural integration faces the challenges from dualism in institutional arrangements, diversity in territorial contexts, and uncertainty in development environments. In response to these challenges, this research employs the idea of ‘economic linkages of small towns’ to develop a rural-centred, place-based, and process-oriented approach towards urban-rural integration. This research examines the functions, patterns, and dynamics of economic linkages of small towns under the wider economic-spatial restructuring process brought by rapid economic growth and urbanisation in China. More specifically, this research explores the implications of small towns’ economic linkages for integrated development of urban and rural areas.

Based on the idea of ‘problem-solving’, this research develops the conceptual framework of ‘Learning-based Territorial Economic System (TES)’ which includes ‘knowledge system’, ‘organisational system’, and ‘territorial system’. This conceptual framework conceptualises ‘economic linkages’ as interactions between economic actors who participated in various ‘interactive situations’ in solving local development problems. This research carried out two case studies of successful small town and rural development in Kunshan, Jiangsu and Shunde, Guangdong. The empirical findings demonstrate that economic linkages are crucial in identifying local development problems, getting access to key economic resources, and coordinating economic activities in uncertain circumstances. Based on the empirical findings, this research develops two development models of Learning-based TES – the Kunshan Model and the Shunde Model – as coherent systems of economic linkages in problem-solving processes. Explicitly, the Kunshan Model features interactive situations of competitive positioning, elite coalition-building, and synchronised operation and the Shunde Model features interactive situations of reflective monitoring, skill matching, and communicative mediation. In application of these two development models, this research formulates a ‘3-step formula’ as key policy implication, including assessment, experiment, and institutionalisation. Such ‘3-step formula’ can contribute to build up local problem-solving capacities that lead to more substantial urban-rural integration.
Declaration

The author confirms that no portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.
Copyright statement

The copyright of this thesis and the ownership of intellectual property rights are regulated according to the following notes:

i. The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

ii. Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

iii. The ownership of certain Copyright, patents, designs, trade marks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

iv. Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=487), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.manchester.ac.uk/library/aboutus/regulations) and in The University’s policy on Presentation of Theses.
Acknowledgement

I would like to thank all the people who have supported me during my PhD journey.

I would like to thank my supervisors, Prof. Cecilia Wong and Iain Deas, who have guided me through the pleasures and sufferings in doing a proper research; my PhD colleagues, who have taught me knowledge from all over the world; the enthusiastic scholars in planning and geography, who have inspired me to take an academic career; the PGR office and other supporting staff, who have created a comfortable office space. I also would like to thank the China Scholar Council and SEED who funded my PhD study.

I would like to thank all the people and interviewee who shared their experience and stories during my field work in Kunshan and Shunde. Especially, I would like to acknowledge Prof. Li Xun, Mrs. Xue Rong, Mr. Kou Jianqiao, and Mr. Jiang Bin, who have accommodated me generously and facilitated my data-collection.

I would like to thank all my friends. With these wonderful people, I travelled London, Edinburgh, Tenby, Wild West of the USA, and many other places; I played football and explored the nightlife of Manchester; and I started to learn Music. I also would like to thank my old friends from 3401 and Chenghuan in Beida. It is you my dearest friends who keep me healthy, balanced, and sane while completing this PhD.

Lastly, I would like to thank my parents. In my heart, I never travel too far from home.
The author

Miao Qiao studied urban planning and economics in Peking University from 2007 to 2012. He became a PhD candidate in planning at University of Manchester in 2012. In 2016, he started to work as a Research Associate in Centre for Urban Policy Studies (CUPS), University of Manchester. He is a member of research team on Newton Fund project “Eco-urbanisation: promoting sustainable development in metropolitan regions of China”.

Chapter 1 Introduction

Urban-Rural Integration in China: challenges from dualism, diversity, and uncertainty

China has drawn the attention of the world due to its dramatic and sustained economic growth over past decades. However, doubts and criticisms have also mounted, especially over the issue of urban-rural disparity, as the economic achievements have mostly concentrated in urban areas while small towns and rural areas are lagging behind. There is an increasingly huge income gap between the urban and rural residents (Sicular et al. 2007). Urban residents also enjoy much better living conditions and public services (e.g. education and healthcare) (Tang et al. 2008). Moreover, the majority of government investment is made in urban areas where most of job opportunities are created (Tao and Zhou 1999). Such urban-rural disparity has led to a large flow of rural-to-urban migration and rapid urbanisation (Zhao 1999). Nonetheless, migration and urbanisation fail to provide effective solutions to urban-rural disparity. Due to a unique administrative system of urban-rural management, rural migrants are unable to enjoy the welfare that is available to local urban residents (Feng et al. 2002). For this reason, China’s urbanisation is often criticised as pseudo-urbanisation (Li 2006). In the meantime, cities in China are overburdened to host rapid population growth, given the emergence of severe urban problems such as urban poverty, over-crowdedness, and pollution (Wu 2009; Cheng et al. 2002; Hao and Wang 2005). As a result, tensions in urban-rural relations are building up and require serious attention.

To counter the problem of urban-rural disparity, central government has been promoting “urban-rural integration” policy initiative over the last decade (Qian and Wong 2012; Ye
2010). The latest authoritative policy document is the National New Urbanisation Plan 2014-2020, which sets out to achieve urban-rural integration through new models of urban-rural development. However, this document is more about an ideal scenario rather than an action plan. To explore a concrete approach to urban-rural integration, there are at least three major challenges for policy-makers and researchers: dualism, diversity, and uncertainty.

**Dualism: institutional discrimination against rural areas**

Urban-rural dualism in China creates a discriminative institutional structure that constrains rural development. Urban-rural dualism is one of the most profound institutional legacies from Maoist China (Nolan and White 1984). The initial economic reform in the late 1970s greatly stimulated rural development through decollectivising agricultural production and promoting rural industrialisation and the Township and Village Enterprise (TVE) sector (Lin 1992). This reform pulled huge number of rural population out of poverty and urban-rural inequality decreased (Huang 2008). In this process, small towns become the foci of rural development (Ma and Fan 1994). However, after the Tiananmen Square protest in 1989, the liberal and entrepreneur-friendly policies for rural areas were discontinued (Huang 2008). The focus of reform had shifted to urban areas (Qian 2002). From the 1990s onwards, central government invested heavily in urban areas to reform State-Owned Enterprises (SOEs) and to attract Foreign Direct Investment (FDI) (Huang 2003). Since then, the urban-rural dualism has remained largely intact regardless of piecemeal subsidies to rural areas.

Given the persistent dualism, we need to understand how dualism has generated a cumulative effect on urban-rural disparity and the actual development conditions of rural areas. If neglecting the underlying structural bias, the pursuit of superficial urban-rural equality will be fruitless. Ultimately, urban-rural integration will depend on the catching-up of rural
development. Therefore, it is essential to take a rural-centred approach towards urban-rural integration to explore how small towns and rural areas might realise their development potential and what kind of urban-rural relations are most beneficial to them.

**Diversity: no one-size-fits-all answer**

The diversity of territorial contexts of urban-rural development in China indicates that there is no one-size-fits-all answer to urban-rural integration. China is a huge country and different localities have their own unique sets of economic, social, and cultural contexts for development. As a central level policy initiative, urban-rural integration has to be delivered in ways that are coherent with specificities of local and regional contexts. Therefore, we need to examine development models at local and regional scale to understand how territorial contexts shape urban and rural development in a systemic way.

Many studies have identified various territorial development models in China (Ge 1999; Zhou 2005; Fan 1995). Among them, three models are most influential and relevant to urban-rural integration, namely the Southern Jiangsu Model (Sunan Model), Pearl River Delta Model (PRD Model), and Wenzhou Model. All three models feature agglomeration of dynamic small towns in rural areas that are well integrated into regional, national, and global economies. Studies demonstrate that the success of the three models depends on the endogenous and bottom-up development of small towns in accordance with their local and regional contexts (Wei 2011; Yuan et al. 2014; Lu and Wei 2007). Therefore, development models of small towns would be very useful to provide key insights to achieve urban-rural integration. As economic dynamics at local and regional level become increasingly diversified, a place-based approach in economic analysis is essential to take the wider territorial contexts into account (Barca et al. 2012).
Uncertainty: competing in a learning economy

Uncertainties in both external and internal development conditions of China impose great challenge upon urban-rural integration. Economic globalisation has intensified competitions among nations and regions (Scott and Storper 2007). Since China’s economy is highly dependent on foreign investment and export-oriented manufacturing, urban and rural development in China is subject to the fluctuations of world market. At the same time, the development model of China as “world factory” faces severe indigenous constraints such as resource depletion, environmental deterioration, and rising costs of labour and land (Brandt and Thun 2010). In this case, central government has been advocating economic restructuring and upgrading centred on technological innovation. Consequently, China is challenged to incorporate the goal of urban-rural integration with an uncertain future of economic restructuring.

Since the mid-1990s, the dynamic and mechanism of contemporary economic development have been conceptualised as “learning”, which emphasises the inherent capacity of an economy to adapt to changes (Lundvall and Johnson 1994). Given the aforementioned uncertainties in development, urban-rural integration also becomes a moving target that requires continuous reinterpretation and re-evaluation to adjust development practices. Therefore, it is essential to take a dynamic and process-oriented approach towards urban-rural integration, rather than a static and result-oriented one.

Research Significance: a rural-centred, place-based, and process-oriented approach towards urban-rural integration

In response to above analyses, this research develops a rural-centred, place-based, and process-oriented approach towards urban-rural integration. In developing this approach, this
research employs the concept of “economic linkages of small towns”. By targeting small towns, the focus of rural development, this research investigates the actual development trajectories and conditions of rural areas. Through the perspective of their economic linkages, this research examines how small towns endogenously develop their economic relations with other localities in accordance with their specific territorial contexts. Therefore, the study of “economic linkages of small towns” will be both place-based and process-oriented. Based on this approach, we can achieve more substantial understanding on urban-rural integration and make more concrete and systematic policy suggestions to achieve this goal.

**Aim and Objectives**

Aim

This research aims to examine the functions, patterns, and dynamics of economic linkages of small towns under the wider economic-spatial restructuring process brought by rapid economic growth and urbanisation in China. More specifically, this research explores the implications of small towns’ economic linkages for integrated development of urban and rural areas.

Objectives and key research questions

1. To review key ideas and theories on small town and urban-rural relations, regional and territorial development with a specific focus on the ways to conceptualise the economic linkages of small town in its development process;
   - What are the major theories and methods applied in studies of small town development and urban-rural relations?
- How do these theories explain the mechanism and process of territorial economic development (development of certain small towns, cities or regions)?
- How do these theories conceptualise the functions, pattern, and dynamics of economic linkages?

2. To examine the specific contexts of urban and rural development in China by charting the shifts in national development strategies, policy frameworks and institutional systems with a specific focus on their impacts upon small town development and urban-rural relations;
   - What are the major national development strategies and policy frameworks since the establishment of the People’s Republic of China?
   - How urban-rural relations in China have changed during different development periods?
   - What are the characteristics of small town development during different development periods?

3. To identify the key actors, functions, patterns, and dynamics of small towns’ economic linkages in the development processes;
   - Who are those economic actors being linked? What forms do their linkages take?
   - What resources and advantage do economic actors gain through their economic linkages? How do they contribute to local economic development?
   - What are the locational patterns of actors being linked?
   - How economic linkages are established, maintained, or changed?

4. To compare and contrast the characteristics and patterns of economic linkages of different small towns and to conceptualise them into different development models; and
   - What are the key components and mechanisms of a development model?
- What are the conditions for suitable application of a development model?
- What are the circumstances that mostly expose the weaknesses of a development model?

5. To synthesise the research findings and draw out key theoretical and policy implications with regard to the role of small town development in urban-rural integration in China.
- What are the implications of this research for theories of regional and territorial development?
- What are the implications of this research for policy-making and planning in integrated development of urban and rural areas?

**Thesis Structure**

Chapter 2 offers a literature review on development theories and practices, with the focus on small towns and rural development, urban-rural relations, and general issues regional and territorial development and integration. Moreover, special attentions are paid to how these theories and practices conceptualise the idea of “economic linkage” and the role of economic linkages in local and regional development. Chapter 3 outlines the broad picture of how urban-rural relations in China have evolved under different development stages and national policy frameworks. Chapter 4 constructs the conceptual framework of Learning-based Territorial Economic System (Learning-based TES) to form the theoretical basis of this research and explained the methodological design for this research. Chapter 5 and Chapter 6 respectively report the empirical findings of small towns’ economic linkages in two case studies, Kunshan and Shunde respectively. Chapter 7 critically discusses the empirical findings and constructs two development models from which theoretical and policy
implication are drawn. Chapter 8 concludes this research with a summary of key ideas, key findings as well as weakness in this research and suggestions for future research agenda.
Chapter 2 Literature Review

This chapter begins with a literature review on urban-rural classification, the functions of small town, and the role of urban-rural relations in small town development. It, then, draws on wider theoretical and policy studies on dynamics and mechanisms of territorial and regional development to explore different ways to conceptualise the role of economic linkages in local and regional economic development. In this respect, this chapter highlights the three theoretical discourses: growth pole theory, Global Production Network theory, and learning region theory. This chapter concludes with critical remarks on the strengths and weaknesses of the three theoretical discourses when applied to the analysis of economic linkages of China’s small towns.

Small town and rural development has been an essential part of reducing regional disparities in economic activities and income. In contrast to metropolitan regions, rural regions are more likely to be lagging behind because of their peripherality (Copus 2001). Peripherality implies that the nature of rural problems is caused by the lack of key resources and assets of economic development. At the same time, the conceptualisation of key resources of economic development has also shifted from production factors such as land, labour, capital, technologies and infrastructures to more intangible dynamics such as economic linkages, institutional supports and learning capacities (Gaile 1992; Storper 1997; Amin 1999). Therefore, the problems of economic development have been firstly framed as lack of access to investment and markets, then as lack of specialisation and agglomeration economies, and most recently, as lack of learning capacities (Parr 1999b; Porter 2000; Malecki 2004). These different interpretations of rural problems have invoked different local and regional
development theories and strategies to address challenges in respective circumstances. This chapter aims to provide a critical review of these theories and strategies by untangling their propositions, rationales, initiatives, and lessons from both academic discussions and policy practices.

A regional perspective is adopted in this research due to two major reasons. Firstly, a region is an inherently integrated spatial unit that does not necessarily separate urban areas and rural areas (Storper 1997). Second, spatial perspective is more attentive to territorial specialities (e.g. place-specific social, cultural, technological, and industrial characteristics) which need to be addressed for regional policies to be effective (Barca et al. 2012). However, the idea of a predetermined territorial focus is not without challenges. The World Bank’s World Development Report *Reshaping Economic Geography* advocated the advantages associated with the economies of agglomeration in large cities and claimed that attempts to spread economic activities would undermine growth and prosperity (World Bank 2009). Thus, the spatial pattern promoted by World Bank favours mega-urban agglomeration at the top of the urban hierarchy. The ideal situation of regional convergence may not only be unachievable but also inefficient. Nevertheless, arguments that justify the place-specific approach are also very strong. It argues that the focus of development policy should be to maximise the development potential of all regions (Barca et al. 2012). In the case of rural regions in the United States, Porter et al. (2004) pointed out that the inability of rural areas to achieve their potential had retarded national productivity and national prosperity. Moreover, it leads to an inefficient spatial distribution of economic activities in the United States as activities that could be performed more efficiently in rural areas either move to foreign countries or add to the congestion of urban centres (Porter et al. 2004).
This chapter first reviews literature on urban-rural classification and definition of small towns to reveal the interdependent relations between small towns and rural-urban development. It then examines three theoretical discourses – growth pole, global production network, and learning region – to explore different conceptualisation of dynamics and mechanisms in local and regional economy, with a special focus on the functions and patterns of economic linkages in them.

**Urban-Rural Classification and Definition of Small Towns**

**Urban-rural classification and urban-rural linkages**

The urban-rural classification of territory has been proved problematic. A range of criteria have been widely used such as population size, population density, employment density, agriculture employment and land-use type, or a combination of them (Bengs and Schmidt-Thomé 2005). The understanding of urban-rural dichotomy has shifted to a recognition of the urban-rural continuum (Champion and Hugo 2004). The European Spatial Planning Observation Network (ESPON) project on “Urban-rural relations in Europe” distinguished six types of European territory based on population density and land-use type (see Table 2.1).

<table>
<thead>
<tr>
<th>Table 2.1 ESPON urban-rural classification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Higher than average population density</td>
</tr>
<tr>
<td>Type 1 Most Urban</td>
</tr>
<tr>
<td>Type2</td>
</tr>
<tr>
<td>Type3</td>
</tr>
<tr>
<td>Lower than average population density</td>
</tr>
<tr>
<td>Type4</td>
</tr>
<tr>
<td>Type5</td>
</tr>
<tr>
<td>Type 6 Most Rural</td>
</tr>
</tbody>
</table>

Source: Zonneveld and Stead (2007, p.443)
In the ESPON classification, there are two types of population density, namely higher than and lower than average. The typology further differentiates three types of land use according to the extent to which a territory is influenced by human activity, ranging from high (built-up), through medium (cultivated), to low human influence (wild). Most rural areas are in type 6 – both wild and less densely populated.

The ESPON classification operationalises the idea of a rural-urban continuum in terms of their morphological characteristics. Its weakness lies in its narrow spatial focus which gives no reference to their current development levels, growth dynamics, socio-institutional contexts and governance regimes (Zonneveld and Stead 2007). Therefore, pure morphological classification of rural and urban areas is not very useful for both academic studies and practical policy intervention. For this reason, administrative classifications of urban and rural areas are still widely used for policy development in local government. Furthermore, administrative boundaries are important to create territoriality and economic embeddedness (Amin 1999). Nevertheless, such distinction of “rural” and “urban” is not to adopt urban-rural dichotomy. Macro policy initiatives have been calling for territorial cohesion and balanced development, with a strong emphasis on urban-rural integration (Habitat 2010; COPTA 2007).

The significance of urban-rural linkages lies in the recognition that the importance of agriculture is decreasing for the local and regional economy in many rural areas. Therefore, non-agricultural sectors of rural economy need to be developed (Zonneveld and Stead 2007). The diversification of rural economies, especially the promotion of entrepreneurship in non-agricultural sector, become the prime initiatives. Rural-urban linkage therefore becomes a key policy concern of rural development. For example, the European spatial policies have actively promoted “the balanced territorial development of rural areas throughout the EU by
empowering people in local areas, building capacity and improving local conditions and links between rural and urban areas” (European Commission 2011, p.10). The Polish Ministry of Regional Development (2010, p.6) also commented that: “It is about creating conditions for supporting the diffusion and absorption by strengthening linkages of major urban areas with sub-regional and local centres and rural areas (e.g. by improving transport accessibility, strengthening investments in sub-regional centres, developing potential of rural areas, and developing territorial specialisations)”. Urban-rural linkages are becoming less constrained by geographical proximity, shifting from the traditional town-hinterland linkages to the more generic urban-rural interactions. Advances in information and communication technology (ICT) and transport infrastructure have made urban-rural interactions increasingly ‘footloose’. Rural businesses now can easily market their products through the internet. Therefore, their customers or suppliers are not necessarily local ones. Urban customers of rural recreation and tourism are by no means restricted to nearby towns or cities. Urban-rural linkages thus can have ubiquitous rather than contiguous impacts (Zonneveld and Stead 2007).

**Definition of small towns**

It is also problematic to give small towns a precise definition. The term ‘small towns’ is often used synonymously as ‘small urban centres’, ‘small and intermediate urban centres’, ‘small and medium-sized towns’, and ‘small and intermediate towns’ (Gaile 1992; Evans 1992; Tacoli 1998; Satterthwaite and Tacoli 2003). In order to define clear-cut boundaries for these small towns, three major approaches are generally adopted. First, “town”, as an administrative status designated by the government, has legally defined boundaries of town territories within which certain power are exercised (i.e. public decision-making). Second, morphologically defined, a “town” is a continuous built-up area with an aggregated population exceeds a certain threshold (Champion and Hugo 2004). The third approach
emphasises on the functional relations between the urban core of a town, usually defined by morphological features and its surrounding areas. Different nations have their own criteria for determining whether a settlement is classified as urban, such as administrative status, density or concentration of non-agricultural employment. In most nations, official definitions consider settlements with 20,000 or more inhabitants as urban centres (Satterthwaite and Tacoli 2003). However, it is less meaningful to distinguish small towns from intermediate towns in terms of population size before any functional difference between these two groups of settlements can be identified. In this research, the term ‘small town’ is used in reference to small and intermediate urban centres in rural areas.

**Function of small towns as central places**

Small towns were recognised as the central places for exchange of goods and services, each for its local farm trade area (Satterthwaite and Tacoli 2003). The function of small towns as service centres is an inherent feature of ‘central places’, as Thomas (1961) stated, these small places provide basic connection between dispersed agricultural population and the agglomerated urban population. For the most part, such direct connections are through the goods and services provided in these small towns for agricultural population surrounding them.

One important issue has to be the ‘smallness’ of small towns. In the context of industrial and regional development, “smallness” has multiple implications. First, ‘smallness’ implies the smallness of size in terms of population and territory, which also means that small town tends to have less local natural and human resources. Second, ‘smallness’ can be interpreted as the lower rank of the administrative hierarchy, which means less autonomy and less power of the local state. The consequence is that small town government has less capacity to mobilise
resources. Third, the ‘smallness’ implies the size of the economy. Small towns usually have small local market and less diversity in local economy, which make small towns more vulnerable to external changes. The lack of economies of scale is related to the inherent nature of rural areas as sparse areas (Parr 1999b). Fourth, the ‘smallness’ means lower quantity and quality of both physical and soft infrastructure, especially the cultural and educational facilities. Fifth, the “smallness” of small town also implies a homogenous cultural and social background.

Since the 1950s, rural economies in developing countries have been undergoing market-based transition (Evans 1992). Export agricultural production becomes the part and parcel of rural income sources. Under such a context, lack of market access has been accused of causing rural poverty (Rondinelli 1983). Small towns are seen as playing a key role in linking their rural hinterland with both domestic and international markets as well as providing the rural population with non-agricultural employment opportunities and thus broadening the local economic base (Gaile 1992). Putting ‘market’ at the focus, a ‘virtuous circle’ model of rural-urban development was proposed by (Evans 1992) (see Figure 2.1). Access to markets would enable rural households to increase their income by producing and selling more agricultural goods. Then, higher incomes would spur rural households’ demand for food and other consumer goods. This leads to the creation of non-farm jobs and the diversification of urban activities, especially in small towns close to areas of agricultural production. This, in turn, absorbs surplus rural labour, raises demand for rural product and, once again, boosts agricultural productivity and rural incomes. The service functions of small towns include not only the provision of basic goods and services, but also that of market, information, technology and other non-material resources essential for rural development (Rondinelli 1985). Based on these conditions, the role small towns played in rural economy has been
supposed to be an active initiator rather than a passive server of rural economy. Adopting the strategies of small towns as central places, investments concentrated in small towns to enhance their service functions in hopes of development diffusion to rural hinterland (Tacoli 1998).

Figure 2.1 A virtuous circle model of rural-urban development

Source: Evans (1992)

When facing the problems of developing rural areas in developing countries, it is natural to count on small towns which are the nearest and most accessible urban centres to rural areas. It is argued that more towns should be nurtured to enhance the accessibility of markets and services. Market-based regional policies were proposed to prioritise government investment based on the ability of that investment to facilitate, expand and improve the functioning of the market system, as a departure from traditional subsidy-oriented strategies (Gaile 1992). However, this positive view has been criticised on the grounds that the cause of low rural
consumption is social inequality and low income rather than difficult access to supply (Hardoy and Satterthwaite 1986).

In the 1980s, a team of geographers at Utrecht University started a programme of comparative studies focusing on the functioning of small towns to elucidate their role in developing rural hinterlands under different regional conditions. Based on the findings of these studies, they challenged the optimistic assumption of policy-makers and regional planners who emphasised the essential role of small towns as regional service centres (Hinderink and Titus 2002). The programme argued that small towns were frequently bypassed due to the competitive advantages of higher-order centres. Also, a small town’s production and service functions tended to depend upon, rather than to initiate, the surplus production and consumption demand of the rural hinterland. Moreover, functions of towns would be constrained by direct government interventions. Thus, the structure and role of small towns were very much affected by regional and local conditions (Hinderink and Titus 2002). Whatever the precise nature of small towns and the roles assigned to them as part of rural development strategies, they form the lower order population and functional nodes in relation to particular institutional structures and hinterlands.

In Europe, the central place relationships between urban and rural areas are most evident in the exchange of goods and services and delivery of public services. Many functions of towns have been taken over by metropolises because increasing traffic speed and expanding communication networks facilitate the accessibility of central nodes (Schneidewind 2006). Therefore, the degradation of private services in small towns causes reduced consumer choices and lower quality of life for rural households who are unable to access larger centres (Copus 2013). In the meantime, urban households will be in need of leisure and recreation of natural landscapes in rural areas. More peripheral parts expect a better rural-urban linkage for
access to urban infrastructure or an improved use of their landscape and cultural assets for recreation and tourism (Courtney and Errington 2000). The same situation applies to employment and shopping facilities for goods beyond daily consumption. Thus, good accessibility to small and medium sized towns and also to larger ones, often further away, is of special significance. It is one of the foundations for rural-urban linkages which in turn also bring improved accessibility of rural assets for the urban population.

This research aims to explore the role of urban-rural linkages in small towns and rural development. In order to frame a more theoretical discussion of urban-rural linkages, the following section takes the idea of “economic linkage” as generalised interactions among places in economic development. The focus is on how development theories conceptualise the role of “economic linkage” in local and regional development.

**Economic Linkages in Growth Pole Theory: spread and backwash effects**

**Growth poles and urban centres**

Uneven pattern of growth within an economy has been well captured as Perroux wrote: “growth does not appear everywhere and all at once; it appears in points or development poles, with variable intensities; it spreads along diverse channels and with varying terminal effects to the whole of the economy” (see Parr 1999a, p.1197). Subsequently, Boudeville (1968) extended the concept of ‘growth pole’ to include the geographical dimension, defining it as a set of expanding industries in urban centres, which stimulated further development of economic activities throughout its zone of influence. The growth pole theory consists of three basic propositions: first, the dynamics of a growth pole come from propulsive firms in leading industries; second, the rapid growth of the leading industries induces the polarisation
of other economic units into the growth pole due to various economies of agglomeration; and third, the dynamic propulsive qualities of the growth pole radiate outwards into the surrounding space (Friedmann and Weaver 1979; Glasson 1978).

With the interpretation of growth poles as urban centres, growth pole theory became particularly attractive to policymakers (Glasson 1978). Especially during the 1960s and 1970s, growth pole strategy was widely applied to solve problems such as reviving depressed areas, encouraging regional deconcentration, modifying the national urban system, and attaining interregional balance (Parr 1999a). Growth pole strategy will always involve a deliberate concentration of infrastructure and economic activities, which will not only supplement formerly absent infrastructure, but also promote the access to raw materials, energy supplies, low-cost labour, and new markets (Parr 1999a).

The rationale for concentration of economic activities is to exploit the economies of agglomeration (Hoover and Giarratani 1969). The agglomeration will generate localisation economies, which indicates externalities outside firms but within the industries such as skilled labour pool, availability of specialised services, and on joint action with respect to input acquisition, marketing, research and development activities, etc. The agglomeration will also generate urbanisation economies, which indicates externalities outside the industries but within the region such as shared public services as well as a range of specialised business and technical services (Parr 1999a; Parr 1999b).

**Spread and backwash effects of growth poles**

A growth pole can have a mix of positive, neutral and negative impacts on its hinterland. The positive effects are also called ‘spread effects’ or ‘trickling down effects’ (Myrdal and Sitohang 1957; Hirschman 1958). Possible spread effects for local economy in the hinterland
include multiplier effects (as the population size and numbers of firms in pole increase, demands for foodstuffs, raw material, or manufactured inputs from the hinterland will increase) and cost-reducing effects (firms in hinterland can have cheaper inputs because pole enterprises become more efficient and produce low-price goods). The growth pole will also promote rural-to-urban migration. As the rural migrants earn more wages in the city, they can contribute to local economy in the hinterland by increased consumption and remittance payments. A growth pole also helps to concentrate investment and retard out-of-region capital flow. As the pole continues to grow, there will be more spread effects on hinterland in the long run (Tacoli 1998).

The neutral effects are evident when pole development featured ‘enclave’ or ‘an island of development’ (Fair 1963). Neutral effects are evident when most industrial linkages are with external firms, often facilitated by improvement of telecommunication and transport infrastructure. Finally, the negative effects, or ‘backwash effects’, include processes of squeeze-out, substitution, and polarisation (Parr 1999b). Squeeze-out can take place when more efficient enterprises at the planned pole take over the market previously supplied by hinterland ones. A substitution of hinterland suppliers can be caused by vertical integration at pole as well as lack of competitiveness of hinterland enterprises. The polarisation refers to the selective nature of factor movement (labour, investment, etc.) from hinterland to the pole, especially the loss of entrepreneurial, highly skilled personnel.

Positive, neutral, and negative effects are likely to occur simultaneously though at different intensities and keep changing over different time-intervals. The net effects of a growth pole on local economy are conditioned on factors such as the overall level of development, the nature of the existing sectoral structure, and the extent of factor mobility (Richardson 1976).
Therefore, the adoption of growth pole strategy will need a close scrutiny over these factors to ensure favourable net effects in long term.

**Application of growth pole strategy and its limitations**

The practical application of growth pole theory centres on the implantation of propulsive industries, including the selection of target industries, the locational requirements of these industries, and the necessary investment and policies to enable the industries to operate profitably (Thomas 1975; Lo and Salih 2013). The challenge for a newly planned growth pole is that the industrial linkages between the propulsive firms and suppliers cannot be easily established. It usually takes a long time for the local industry to be able to supply the right product, in the right quantity, at the right time to meet the demands of the propulsive firms (McCrone 1969). Even though the propulsive firms can attract competent suppliers to relocate to the target areas, it is subject to great uncertainty. Small supplier firms are sometime unable to relocate to the planned growth pole due to huge transaction costs. They could also be firmly embedded in the linkages with existing propulsive firms (Parr 1999b). Moreover, the stock of inter-regionally mobile manufacturing activities may be not sufficient for the desirable amount of economic activities in the planned pole, especially when the whole nation has a weak industrial base (Parr 1999b).

Another practical problem of growth pole strategy concerns the optimal spatial configuration of growth poles, in terms of their sizes, hierarchies, frequencies and locations. An optimal configuration of growth poles is difficult to calculate, due to the extremely complex nature of economic system and the lack of data. Therefore, the spatial configuration of growth poles often confines to a limited geographical coverage, as a specific problem-region is targeted (Glasson 1978). Alternatively, some studies argue the market mechanism will automatically
work out the spatial pattern of growth pole. There is a path that, according to the World Bank (2009) report, all territories must tread, which involves a greater concentration of economic activity in dynamic poles. Consequently, large cities are much more preferred than small towns as growth poles. Such spatially-blind policies of economic development are built around factor mobility and agglomeration economies. However, it is uncertain whether these spatial consequences are desirable, both economically (in terms of economic efficiency) and politically (in terms of social justice) (Barca et al. 2012).

There are at least three weaknesses of the orthodox concept of growth poles. First, there is a lack of recognition of interactive learning and innovation processes in providing the dynamics of a growth pole. The orthodox concept of a growth pole attributes its dynamics to propulsive sectors, which often leads to a very limited set of sectors being considered, such as oil-refinery and automobile. More recently, industries like biotech, clean energy, and advanced manufacturing have been recognised by policy-makers as contemporary propulsive industries. Usually, small towns are not competitive sites for these industries due to weak industrial and technological bases. Thus, the scope for adoption of growth pole strategies has become very narrow.

Second, institutional support does not receive enough attention in promoting growth pole. In growth pole strategies, the operation of propulsive firms and their linkages with local development were assumed to be coordinated by market forces and take place rather automatically (Parr 1999b). On the contrary, such embedding processes require adequate institutional supports (Granovetter 1985). The establishment of growth poles has been characterised by a top-down approach and driven by predominantly exogenous forces. In search of alternatives to imported poles, the potential sources of endogenous dynamics of growth poles are of importance (Isserman 1993). A supply-side approach has been suggested,
particularly in terms of technology transfer, the encouragement of process and product innovation, the development of equipment sharing, the availability of training and support services, as well as the fostering of entrepreneurial skills, small-firm formation and the retention of existing manufacturing activity (Gaile 1980).

Third, the effects of external forces on a growth pole are not substantially addressed. The globalisation trends have greatly increased the mobility of propulsive firms in growth poles, which increases the local risk of losing them (Friedman 2006). Depending on the wider technological and market conditions, certain pole industries may also decline due to structural change before they generate any spread effects. The ability of propulsive industries to sustain rapid growth is not sufficiently addressed. At the same time, vertical disintegration of propulsive firms can also reduce their capacity to pull local growth (Christopherson and Storper 1986).

**Economic Linkages in Production Network: chains, clustering and coupling**

**Globalisation and the emergence of specialised regions**

Globalisation as a fuzzy concept has been approached through different disciplinary lens. Economists tend to picture a borderless world by pointing to the rise of multinational corporations (MNCs), the liberalisation of trade regimes, and the near free flows of international currency and equity trading (Ohmae 1990; 1995). Meanwhile, political scientists, sociologists, and geographers tend to be more modest towards such borderless world by emphasising the persistence of distinct political and economic structures of nations and regions (Scott 1996; Storper 1995). As globalisation has greatly improved the mobility of economic factors, it tends to undermine place-based advantages. However, the importance of
place has been reconstructed given the emergence of new forms of territorial agglomeration based around specialisation (Scott 1986). Since the early 1980s, the resurgence of ‘region’ as a fundamental basis of economic and social life has been evident (Storper 1997). It was asserted that regional level, rather than national, is the scale that these non-material advantages, rooted in sets of social relations between firms and institutions are located (MacKinnon et al. 2002).

In order to reconcile such contradictory interpretations of globalisation, Sturgeon (2001) claims that globalisation is an ongoing process and distinguishes the difference between globalisation of markets and globalisation of production. While free trade gives rise to globalisation of markets, trade restrictions leads to the globalisation of production. Evidence can be found in the establishment of local production capacity by MNCs in developing countries; such investments have been primarily made to gain market access (Dicken 2003). The globalisation of production also allows firms to take advantage of cheaper input factors (e.g. labour, natural resources) located elsewhere (Narula and Dunning 2000). The latter process of functional integration of internationally dispersed activities was claimed to be the more important aspect of globalisation, rather than merely geographical extension of the same set of economic activities (Dicken 2003).

Given the globalisation trend, the integration into wider production network has been the necessary condition for a successful regional economy (Coe et al. 2004). A locality must ‘tailor’ itself to satisfy specific needs of the wider economy and establish economic linkages with external resources. This understanding of economic success focuses on the exploitation of local specificities. A locality relies on these specificities to develop competence so as to satisfy the strategic needs of the wider regional, national and global economy. The trend that cities and regions are becoming increasingly “specialised” has been well documented. Storper
and Scott (1995) argued that the global economy was made of a set of specialised regional production systems, each with its own dense systems of intraregional transactional arrangements and local labour market activities. Storper (1997, p.4) also commented, “Integration was not bringing similarity, but specialisation, a form of regionalisation”. These individual cities and regions are entwined in a worldwide web of inter-industrial linkages, investment flows, and population migrations (Scott and Storper 2007).

**Production network and Industrial districts**

The phenomenon of globally organised production system and the active role played by MNCs have inspired scholars to transcend regional and national boundaries to capture new spatial and organisational forms of production (Ernst and Kim 2002). The earlier studies of cross-border economic integration adopted a “value-chain” approach to trace the spatial distribution of production, provided a globally organised division of labour involving key actors such as MNCs, Original Equipment Manufacturers (OEMs), and suppliers. (Gereffi et al. 2001).

A value chain is a sub-set of a production network since it indicates a linear sequence of productive activities which transform material and non-material inputs into demanded goods and services (Coe et al. 2008). The chain concept puts emphasis on inter-firm networks, less on the non-firm actors which may affect activities of firms significantly (Coe et al. 2004). A related concept *filière* is defined as a system of economic actors involved in every procedure of product production and distribution. The concept of *filière* incorporates firms, state institutions and their hierarchical relationships into analysis (Raikes et al. 2000). A major weakness of the ‘chain’ approach is that it only captures the linear and vertical processes of production and distribution. In reality, each stage of a production chain is associated with
wider sets of non-linear/horizontal relationships (Henderson et al. 2002). In this regard, Lazzarini et al. (2001, p.7) have put forward the concept of the ‘net-chain’: “a set of networks comprised of horizontal ties between firms within a particular industry or group, which are sequentially arranged based on vertical ties between firms in different layers . . . Net-chain analysis explicitly differentiates between horizontal (transactions in the same layer) and vertical ties (transactions between layers), mapping how economic actors in each layer are related to each other and to agents in other layers”.

Built on the ideas of ‘chains’, global production networks (GPN) was defined as the globally organised nexus of interconnected functions, operations and transactions by firms and non-firm institutions through which goods and services are produced, distributed and consumed (Coe et al. 2004, p.471). An important aspect of GPN is its geography. Firms and non-firm actors within GPN are embedded within concrete socio-institutional contexts as well as pre-existing local production systems (Henderson et al. 2002). Key elements of such socio-institutional contexts include state policies, the legal frameworks, the nature of education, training and labour systems, and the sources and organisations of corporate finance (Amin 1999). Local production system usually consists of agglomeration of small and medium enterprises, local social networks and local labour markets (Henderson et al., 2002). Embeddedness becomes a key element in regional economic growth and in capturing global opportunities (Amin and Thrift 1995). National and local government may intentionally facilitate embeddedness of particular parts of the GPN through specific policies (training programmes, tax advantages etc.) in order to be integrated into global networks (Harrison 2007). A process of disembedding can also take place (for instance, by disinvestment or plant closure) when a lead firm cuts its ties with a city or region (Phelps and Waley 2004).
The form of locally and regionally organised production system is substantially discussed in the literature on “industrial district”. An industrial district is generally defined as a sizeable and spatially delimited area of trade-oriented economic activities which has a distinctive economic specialisation, be it resource-related, manufacturing, or services (Park and Markusen 1995). The original concept of ‘industrial district’ dated back to the end of the nineteenth century when the British economists Marshall (1920) observed the specialised agglomerations of small and medium-sized enterprises (SMEs) such as Lancashire cottons, Sheffield cutlery, and South Wales tinplate. Zeitlin (2008, p.223) reinterpreted Marshallian industrial district (MID) as “a geographically localized productive system based on an extended division of labour between small and medium-sized firms specialized in distinct phases or complementary activities within a common industrial sector”.

The concept of industrial district was revived by the studies which capture the decentralised industrial complexes across the central and Northeast Italy (Becattini 2004). The Italian experiences emphasised the importance of historical and cultural traditions such as the extended family, sharecropping, and peasant proprietorship, and local political subcultures of both the red (Socialist/Communist) and the white (Catholic) (Zeitlin 2008). The stylised accounts of Italian-type industrial districts also featured a series of social features such as a non-metropolitan, small-town environment; a set of shared values like hard work, cooperation, and collective identity; and a local social structure dominated by small entrepreneurs and skilled artisans (Schmitz and Musyck 1994). There were evident sectoral specialisation of Italian industrial districts which were mainly light and labour-intensive industries like clothing, textiles, shoes, jewellery, and furniture (Brusco 1986).

However, local production systems consisting of small and innovative firms and intensive inter-linkages can also be observed in regions which do not share such social backgrounds.
There are more technology-intensive districts emerging from disintegration of mass-production (e.g. automobile districts in Turin), high-tech as well as cultural industry districts such as Silicon Valley, Orange County and Hollywood (Saxenian 1983; Christopherson and Storper 1986; Galbraith 1985).

Markusen (1996) made a typology of industrial districts including Marshallian industrial district (MID), Hub-and-spoke district (HSD), Satellite industrial platform (SIP), and State-anchored district (SD). The configuration of MIDs is dominated by small, locally owned firms. There are substantial intra-district trade among buyers and suppliers while cooperation and linkages with external firms are at minimum. HSDs feature structures dominated by one or several large, vertically integrated firms surrounded by suppliers. Core firms are primarily linked to external suppliers and competitors. Substantial intra-district trade linkages are present between core firms and suppliers. SIPs are dominated by large, externally owned and headquarterd firms. Intra-district trade among buyers and suppliers tends to be minimal. SDs are dominated by one or several large government institutions such as military bases, national capitals or large public universities. In this case, there are substantial intra-district trade linkage between dominant institutions and customers. The four models of industrial districts are highly conceptual and stylised. Therefore, a real-world district may be a combination of several types and they can mutate from one type to another, especially under the changing global economic circumstances (Markusen 1996).

From a GPN perspective, we consider how different types of industrial districts might be integrated into the global economy as well as their respective resilience and vulnerability. MIDs are supposed to a relatively stable and self-contained system because small firms in MIDs are of great autonomy and flexibility, which consciously network to share risks and information so as to stabilise external market fluctuations (Harrison 2007). The success of a
regionally specialised industry is often associated with some degree of market power and dominance over regional factor markets (Markusen 1996). In this way, such localities hosting MIDs are capable of contesting forces of global leading firms in fixing local economic activities and protecting market share. Nevertheless, lead firms can still penetrate into MIDs by acquiring local firms in hope of tapping into specific assets (Sturgeon 2001). In a certain GPN, MIDs tend to sit in a higher hierarchy.

HSDs are where single or several large firms buy from both local and external suppliers and sell to external customers (Gray et al. 1996). HSDs are often where lead firms located, which functioned as anchors of local economic activities (e.g. evoking agglomeration of skilled workers and business services around them). Small firms can also be formed in HSDs to take advantage of these labour pools and specialised business services without necessarily linking to large firms, in which way diversifying and regenerating local economies (Knorringa and Meyer-Stamer 1998). Cooperation among large competitor firms is unlikely compared to MIDs and large firms’ strategic alliances are opting to be with partners outside the district (Bellandi 1996). The vulnerability of HSDs lies in over-reliance upon their major firms, which may decline due to poor management or changes of market conditions (Guerrieri and Pietrobelli 2004).

SIPs are often initiated by states at relatively peripheral locations as a way of stimulating regional development by offering low-wage labour, cheap rent, and discounted tax (Markusen 1996). Firms within SIPs, dominated by external parent corporations, tend to be heterogeneous in term of products and even industries so levels of cooperation and interlinkages are relatively low. The main sources of finance, technical expertise, and business services are all external to the region. Therefore, the fortune of SIPs is jeopardised by competition from similar districts. The degree of territorial embeddedness is thus low for
economic activities in SIPs. However, growth of suppliers towards platform tenants, labour pool, and improvement of infrastructure and amenities will potentially strengthen the ability to retain local economic activities (Howes 1993).

**The bright and dark side of strategic coupling**

Economic performance relies more on localised capacities to build “global” connections, complemented with an adequate local resource base, than on local networking and clustering (Lagendijk and Lorentzen 2007). Traditionally, the success of a region has largely been attributed to Ricardian comparative advantages based on resource endowment and labour productivities (Martin and Sunley 1996), whereas the relations between region and the wider economy have not been attended to. More recently, scholars claimed comparative advantages are more humanly created through the process of trade (Coe et al. 2004). Thus, the critical factor of economic success is often not necessarily the local factors, but the ability to anticipate and respond to changing external conditions (Coe et al. 2004). As Amin (1999, p.375) argued, “It is the management of the region’s wider connectivity that is of prime importance, rather than its intrinsic supply-side qualities”. Copus (2013, p.11) also remarked: “The forces of agglomeration … are today driven by shared support resources, social embeddedness, or access to transportation hubs, rather than by business interaction with other local firms”. A balance is then called for between exogenous and endogenous forces in local and regional development.
A strategic coupling process is that the assets of a region meet the needs of actors in GPNs (see Figure 2.2). According to Yeung (2009, p.213), “in the context of urban and regional development, strategic coupling refers to the dynamic processes through which actors in cities and/or regions coordinate, mediate, and arbitrage strategic interests between local actors and their counterparts in the global economy”. This strategic coupling process has three important characteristics (Coe and Hess 2011, p.131-132). First, it is viewed as strategic since it relies on intentional actions of economic actors. Second, it is time and space contingent, involving the set-up of a temporary coalition between groups of actors in the pursuit of a common objective. Third, it transcends territorial boundaries, bringing together actors who operate across different spatial scales. From the GPN perspective, regional
development is essentially multi-scalar (Henderson et al. 2002). The fortunes of regions are shaped by wider sets of relations of control and dependency, of competition and markets at all scales (Coe et al. 2004). The GPN approach is thus proposing the ‘globalising’ or ‘scaling up’ of regional development, by emphasising the extra-regional processes that affect intra-regional economic activities (Wei 2010; Wei et al. 2007).

Though it is essential for a locality to be integrated in wider economy, there is also a dark side of strategic coupling. A city or region could be locked into a production network when they are only adapted to meet narrow needs of external actors without the capacity to connect to other network and diversify local economic bases (Martin and Sunley 2006). Second, the asymmetrical power between MNCs and local actors can force local government to prioritise the need of external firms at the expense of indigenous firms (Dicken et al. 2001). The strategic decoupling from some GPNs will take place if the benefits of external linkages do not outweigh the detrimental effects. Both processes of coupling and decoupling are strategic given the selectivity towards GPNs. Any development strategy must therefore reflect decisions about which networks should be engaged with and which should be de-coupled from, thereby actively shaping the regions’ positionality with respect to wider economic systems (Coe and Hess 2011). As a result, in most cases, a locality is inserted into a number of different GPNs.

**The elements of locational advantage and cluster effects**

Globalisation has intensified competitions between locations. So what are the sources of locational competitive advantage? The cluster theory has been a major attempt to answer this question. Cluster, defined by Porter (2000, p.16), is “geographic concentration of interconnected companies, specialized supplier, service providers, firms in related industries
and associated institutions (e.g. universities, standard agencies, and trade associations) in a particular field that compete but also cooperate”. Thus, cluster is considered as a specific form of microeconomic foundation of the competitiveness of a locality. Competitiveness attained by creating local synergies among local actors, or integrating external firms in the local relational web, exploits spill-overs and increasing returns that are at the very base of economic development, in its positive-sum, ‘generative’ sense (Camagni and Salone 1993).

Porter (2000) summarised the four main sources of locational competitive advantages: the context for firm strategy and rivalry, the factor (input) conditions, the demand conditions, and the related and supporting industries. An ideal local context will encourage appropriate investment and sustained upgrading. The transition of local competition from low wage to low total cost, from competition over same product to differentiation and specialization, from imitation to innovation will greatly enhance local competitiveness. The factor (input) conditions include the quantity and quality of resources and infrastructures, ranging from both tangible assets such as natural resources and intangible assets like information and technology. The demand conditions indicate the sophisticated and demanding local customers who give out the signal of market needs. Local demands also can reveal niche markets where firms can differentiate them. The presence of capable local suppliers and competitive related industries can provide local firms with early, rapid and preferential access to highly cost-effective inputs (see Figure 2.3).
Clusters can amplify locational competitive advantage through increasing the productivity of constituent firms or industries, increasing innovation capacity, and stimulating new business formation that supports innovation and expands the cluster (Porter 2000).

According to Porter (2000), cluster can offer many potential advantages in innovation compared to isolated locations in three ways. First, cluster firms can perceive new buyer needs more clearly and rapidly because of better buyer knowledge and relationship, the concentration of specialised information-generating entities, and buyer sophistication. Second, cluster participation offers advantages in identifying new technological, operating, or delivery possibilities and the flexibility and capacity to act on them quickly. Third, peer pressure from constant comparison also reinforces the stimulus for innovation. Moreover, new businesses

---

**Figure 2.3 Sources of locational competitive advantage**

Source: Porter (2000, p.20)
are more likely formed in clusters rather than in isolated locations because of better information about opportunities; easy access to assets, skills, and other inputs; and presence of local market, etc. New business can play a major role in speeding up the process of cluster innovation given their flexibility in experimenting new ideas.

How constituent firms in a cluster acquire information and knowledge from nearby firms? Spatial clustering of firms is supposed to create a vibrant place where ‘local buzz’ is present (Asheim et al. 2007). According to Bathelt et al. (2004, p.38), buzz refers to “the information and communication ecology created by face-to-face contacts, co-presence and co-location of people and firms within the same industry and place or region”. This buzz consists of “specific information and continuous updates of this information, intended and unanticipated learning processes in organised and accidental meetings, the application of the same interpretative schemes and mutual understanding of new knowledge and technologies, as well as shared cultural traditions and habits within a particular technology field, which stimulate the establishment of conventions and other institutional arrangements” (Bathelt et al. 2004, p.38).

Actors continuously contribute to and benefit from the diffusion of information, gossip and news by just ‘being there’ (Gertler 1993). In this context, “actors are not deliberately ‘scanning’ their environment in search of a specific piece of information but rather are surrounded by a concoction of rumours, impressions, recommendations, trade folklore and strategic information . . . ” (Grabher 2002, p.209). However, intensive buzz is neither a direct consequence of agglomeration of firms, nor is all sorts of buzz equally helpful to firms in a cluster. Co-location also enables firms to understand the local buzz in a meaningful and useful way because firms develop similar language, technology attitudes and interpretative schemes to form the “communities of practice” (Lawson and Lorenz 1999). Such
communities consist of “agents which are bound together through day-to-day interaction, based on the same expertise, a common set of technological knowledge and similar experience with a particular set of problem-solving techniques” (Bathelt et al. 2004, p.39). Communities of practice can be highly efficient and effective in problem-solving given the establishment of distinct routines, conventions and other institutional arrangements (Wenger 1999).

**Supporting system for cluster**

The success of cluster strategy does not only depend on the clustering of firms, but also a set of supporting conditions for the cluster. The government has a role to remove obstacles and ease constraints to cluster formation and upgrading (Porter 2011). Ideally, all government policies that inflict costs on firms without any compensating, long term competitive or social value should be minimized or eliminated. Besides trade linkages, interpersonal relationships also play a crucial role in inter-firm interactions (Porter 2011; Gordon and McCann 2000). Communication is the essence of successful cluster initiatives, especially in places where mutual understanding and trusts are absent. Since interpersonal relationships can effectively foster open communication and build trust, it is important to build the cluster based on a stable and active actor network at the outset. The advantage of actor network is that it tends to endure and reinforce over time. This is to overcome the weakness of promotion campaigns, the effects of which tend to diminish quickly after the campaigns end.

A cluster includes not only the grouping of firms, suppliers, related industries and service provides, but also other types of actors who play supportive roles, such as government and various intermediate organisations (Amin 1999). A cluster provides a platform to “bring companies, government, and local institutions together in a constructive dialogue about
upgrading, offering a new mechanism for business-government collaboration” (Porter 2000, p.30). Such platform is essential for the formation of a shared understanding of local development perspectives. The consensus will make firms more likely to be engaged in government initiatives to build business-government-institution dialogue (OECD 1992).

Porter (2000) suggested that cluster initiative should embrace all clusters in a region or nation. Successful cluster initiatives include established clusters in traditional sectors (e.g. agriculture and labour-intensive manufacturing) and emerging ones in new sectors (e.g. finance, services, and hi-tech sectors). To avoid misguided attempts to create clusters from scratch, targeted clusters should have a sound foundation of local assets, which could be a group of firms that have survived in competitive market. Government should reinforce and build on established and emerging clusters rather than creating entirely new ones (Porter 2000). Therefore, the cluster approach is more market-oriented with strong emphasis on local productivity and competitiveness (Malecki 2004), while the growth pole strategy concerns more on employment creation (Gaile 1980).

**Economic Linkages in Learning Region: interaction and learning**

Exploration of GPNs certainly reveals the geographical characteristics of successful regions. Yet the attention tends to concentrate on the visible structures of the production system. In other words, they are the outcomes of success as observed in many places. Therefore, there is a need to dig deeper beneath the observations and find out the ‘genesis’ upon which these visible structures are built.
Learning economies and innovation

Learning as the central concept for development has been flourishing since the mid-1990s (Lundvall and Johnson 1994). Nowadays, an emerging consensus among researchers is that “learning economy” best conceptualises contemporary economic dynamics (Morgan 1997; MacKinnon et al. 2002; Ketels 2013). Of course, knowledge has been the resource of economy and learning has been important economic activity throughout history. The new characteristic of learning economy is that “learning processes have been institutionalised and feed-back loops for knowledge accumulation have been built in so that the economy as a whole, including its production and consumption, is both ‘learning by doing’ and ‘learning by using’” (Lundvall and Johnson 1994, p.26). From a functional perspective, “the learning economy is the organisation of firms that facilitates effective responses to technological change through the accumulation of know-how, continuous adaption to new knowledge, and the pursuit of new, higher quality, more cost-effective production. The emergence of the learning economy requires investments in organisational assets at the level of both the firm and the economy” (Storper et al. 1998, p.4).

In a learning economy, innovation has been perceived as processes rather than outcomes (MacKinnon et al. 2002; Morgan 1997). The contents of innovation have not changed greatly as products and production processes still situate at the target of innovation endeavours. What has changed is that technical and organisational progresses have been increasingly endogenous (Lundvall and Johnson 1994). As highlighted by Morgan (1997), there are two propositions of endogenous innovation. First, innovation is an interactive process. Innovation is no longer considered as a linear model with R&D at upstream, technological innovation and transferring at midstream, and production at the downstream (Cooke et al. 1997). Instead, it involves an interactive network of firms, government, customers, knowledge institutes.
such as universities, research institutes, consultancies, and technology transfer agencies), and a governance structure of private business associations, chambers of commerce, and public economic development, training and promotion agencies (Cooke et al. 1997). In this sense, innovation requires broader participation and builds on multi-skilling and networking (Lundvall and Johnson 1994). Second, innovation is shaped by a variety of institutional routines and social conventions. Institutions are defined as sets of habits, routines, norms and laws that regulate the relations between people (Lundvall and Johnson 1994). As innovation is an interactive process, the capacity of innovation is thus defined by the efficacy of interactions. In search of the institutional set-ups that govern innovation processes, economists, economic geographers and regional theorists have advanced several concepts. Lundvall and Johnson (1994) argued that there is “organised markets” as mixed forms in-between pure market and hierarchy. Markets are not constituted of completely anonymous sellers and buyers. Instead, markets involve a set of relations, especially the user-producer relations. Such relations are keys to communicate technical opportunities and user needs, which sometimes involve direct cooperation.

**Learning region: locational characteristics of innovative activities**

As mentioned before, in a world which is increasingly globalised, the importance of ‘place’ has increased rather than diminished. The intellectual challenge to identify the spatial form of learning economy has been well posed by a heterodox paradigm integrating technologies, organisations and territories. Based on a relational turn in economic analysis, this holy trinity of regional economics was reconceptualised by Michael Storper, implementing the metaphor of economy as relations. This guiding metaphor views the economic process as conversation and coordination, the subjects of the process as reflexive human actors, both individual and
collective, and the nature of economic accumulation as not only material assets, but as relational assets (Storper 1997, p.28 original emphasis).

In this model, key perspectives of economic analysis include conventions, relations, and action framework. The goal is to understand how relations of coordination between reflexive agents and organisations are established and how individual and collective reflexivity operate through cognitive, dialogic, and interpretative processes (Storper 1997, p.31). The content of the theoretical holy trinity - technologies, organisations, and territories – is also redefined to a set of relations and their constituent reflexive processes (see Figure 2.4).

Figure 2.4 the holy trinity of reflexive turn

Source: Storper (1997, p.42)
Technologies

Technological change is no longer viewed as a linear input-output model, with scientific R&D upstream, innovation midstream, and commercialisation and diffusion downstream. On the contrary, technology change tends to recreate imperfect competition through destandardisation. In this process, a set of relations are emphasised, including user-producer relations (interfirm, interindustry and consumer-producer); science-production relations; interfirm relations in technologically cognate areas; and firm-government-university relations in technological innovation. The essence of technological change is therefore the relations by which asymmetric, noncosmopolitan knowledge is generated, applied, and further evolved (Storper 1997, p.34).

Organisations

Organisations refer to firms and production systems. In confront of uncertainty, the problem of economic coordination is that the effectiveness of one actor’s actions depends on other actors’ actions. Therefore, it is crucial to have a certain level of confidence on one’s expectations upon others. This problem used to be tackled by bureaucratic hierarchy or market. However, neither hierarchy nor market is efficient to solve two main problems in learning-based competition: the ‘flexibility’ problem, which refers to the capacity to move resources around to implement what is learned; and the ‘specialisation’ problem, which refers to highly focused attention of the learners through divisions of labour. Storper argues that economic coordination to solve these two problems is through untraded interdependencies and conventional-relational (C-R) linkages. Untraded interdependencies include personal contacts, knowledge of the other, reputation and diffusion of information through various informal channels. C-R linkages include “labour markets, public institutions, and locally or
nationally derived rule of action, customs, understandings and values” (see Storper 1997, p.19). Formal organisations, such as firms, governments, universities, and industry associations, are only able to communicate and coordinate their interactions by using channels with a strong C-R content.

**Territories**

There are many circumstances in which distance is a barrier and proximity is necessary. Such circumstances would normally concern intensive learning when frequent, repeated interactions are needed. “These are situations involving high levels of substantive complexity in transacting between persons; in general they are circumstances which depend on interpretative interaction and require persons to achieve and reproduce confidence in their relations” (Storper 1997, p.40). Geographical proximities emerge as the necessary conditions for learning-based relations identified in domains of technologies and organisations. The benefit of proximity lays in reducing a bundle of transaction costs in interactive activities, broader than merely lowering the transport costs in input-output linkages. “There must be simultaneous consideration of territory and region as derived outcomes of technology and organisations, and as the locales of differentiated conventions and relations” (Storper 1997, p.43).

**Elements of learning and absorptive capacity**

In terms of empirical research addressing how innovation affected regional development, three seminal studies have been most referenced: Saxenian’s (1983) comparative studies of Silicon Valley, the work on the small firms located in the university cities of Oxford and Cambridge (Keeble et al. 1999), and Henry and Pinch’s (2000) work on British motor-sport industry. Saxenian (1983) explained that flexibility and collaborative learning had been the
continuing dynamism of Silicon Valley while the stagnation of Route 128 was related to its orientation towards vertical integration and product standardisation. The Cambridge and Oxford studies operationalised the idea of ‘collective learning’ by identifying three key mechanisms of learning: the formation of new enterprises as spin-off from existing organisations, inter-firm interaction and cooperation, and flows of skilled personnel between firms (Keeble and Wilkinson 1999). Henry and Pinch’s studies operationalised Storper’s notion of untraded interdependencies and identified several mechanisms of knowledge diffusion, such as staff turnover, the formation of new firms, the development of career trajectories, and more informal exchanges based on gossip and rumour (Henry and Pinch 2000).

The idea of ‘innovative milieu’ was developed by the GREMI School of economists in continental Europe, which emphasised the importance of dynamic collective learning process in supporting local development (Keeble and Wilkinson 1999; Capello 1999). Collective learning among a group of firms are important in stimulating industrial agglomeration (MacKinnon et al. 2002). The collective learning involves combining and restructuring knowledge of each participant firm into new knowledge (Lawson and Lorenz 1999). A distinction between two forms of knowledge – codified and tacit knowledge – is needed to understand such process (Morgan 1997; Storper 1997). While codified knowledge can be easily traded or communicated through markets and hierarchies, tacit knowledge is normally territorially embedded in production practices and the ‘know-how’ of particular firms and workers (Malmberg and Maskell 2002). Since tacit knowledge is considered more important, the geographical proximity between firms becomes necessary to facilitate the transmission of tacit knowledge through close interpersonal and inter-firm relations (Cooke et al. 1997). Geographical proximity is necessary to ensure the degree of continuity and stability in inter-
firm relations required in learning processes (Maskell 1998). Trust, which promotes reciprocal exchange of information and knowledge, is also more likely to be established among firms that locate near to each other (Morgan 2004).

Critiques of the learning region concept have pointed out that some stagnated regions are also featured of “untraded interdependencies”. Explanations are not sufficient in terms of why some knowledge-based regions adapt to new growth trajectories while others fail (Morgan 1997). Especially, more studies are needed to solve the problem of institutional lock-in, as “an inability to make the change from one development trajectory to another precisely because the institutional bases of the region reflected the past dominance of now declining firms and sectors” (Hudson 1999, p.68). Therefore, a crucial element of urban and regional development involves how endogenous knowledge resources can be linked with complementary knowledge resources in other regions (Freel 2000). Bresnahan et al. (2001) argued that entrepreneurs and their abilities to start up new ventures and tap into external technologies and markets are crucial to the genesis of clusters. Scott (1986) also emphasised that strong growth can only occur when external markets are linked to local production and a right mix of local and nonlocal transactions can largely determine the performance of a local cluster. The competitiveness of a city or region can be threatened when localised social relations are too close, too exclusive and too rigid, running the danger of over-embeddedness (Uzzi 1996). Therefore, attempts to consciously open local networks to tune in external information, as well as upgrading traditional solutions, are important to avoid lock-in (Bathelt et al. 2004).

Nonetheless, internal accumulation and external linkages are complementary rather than contradictory. Bathelt et al. (2004, p.31) distinguished two simultaneous processes of knowledge dynamics in regional development: “on the one hand, the learning processes
taking place among actors embedded in a community by just being there – the local buzz; on the other, the knowledge attained by investing in building channels of communication to selected providers located outside the local milieu– the global pipelines”. In terms of learning, local networking certainly has its limitation in access to decisive, non-incremental, sometimes breakthrough knowledge that is created elsewhere (MacKinnon et al. 2002). Distant interactions, in addition to local interactions, are considered as an essential part of local learning processes (Oinas 1999). The term ‘pipelines’ was used to refer to the channels used in such distant interactions (Owen-Smith and Powell 2004), which function in a very different way compared to relatively unconstructed and largely ‘automatic’ local buzz (Bathelt et al. 2004). The establishment of ‘pipelines’ with new partners requires that new trust is being built in a conscious and systematic way (Bathelt et al. 2004; Lawson and Lorenz 1999).

Pipeline formation involves a complex and costly process (Bathelt et al. 2004). First, the selection of external partnership will often be constrained by incomplete and truncated information about the set of potential partners. Furthermore, firms at both ends of global pipelines have to develop a shared understanding of each other’s particular institutional and cultural contexts (Owen-Smith and Powell 2004). This involves intense efforts to develop joint action frames and projects. Such costly processes imply that only a limited number of pipelines a firm will be able to develop and handle (Bathelt et al. 2004). High costs also force firms to rely on certain selection routines, for example, a firm may look up to the reputation of external actor, or use regular conventions and trade fairs (Lawson and Lorenz 1999). In addition, firms can set up branches or acquire other firms in distant clusters in order to establish local linkages within new locations and their markets (Bathelt et al. 2004).
Over time, these pipelines enable fine-grained information transfer and cooperation in more complex projects. Buzz and pipelines are supposed to be mutually reinforcing. The more trans-local pipelines built, the more information and news about technologies and markets are ‘pumped’ into local networks and stimulate local buzz (Bathelt et al. 2004). Pipelines enable firms to go beyond the routines of the local cluster by providing a wider set of technological and organisational options (Bathelt et al. 2004).

The absorptive capacity refers to “the ability to assimilate the information arriving through pipelines and to apply it successfully towards commercial ends” (Bathelt et al. 2004, p.44). Therefore, the role of “internal gatekeepers” becomes crucial for translating externally produced knowledge into a form that can be internally processed (Bathelt et al. 2004). At the firm level, both the diversity of expertise and its distribution within the firm are key elements of absorptive capacity (Bathelt et al. 2004). The lack of diversity of expertise will lead to genuinely new knowledge being ignored or treated as something irrelevant. The distribution of expertise will also affect how knowledge is understood and handled because the expertise of gatekeepers will decide how knowledge is organised and dispatched to various departments; and then, the expertise of respective department will eventually decide how knowledge is processed (Bathelt et al. 2004).

**Economies of association**

In learning regions, the clustering of learning actors and their economic linkages create the “economies of association”, in comparison to the conventional idea of “economies of agglomeration” (Amin 1999). Economies of association can be built on inter-firm exchange and reciprocity, buyer-supplier linkages, pooling of resources, joint ventures, and task specialisation (Amin 1999). More importantly, non-government organisations, such as trade
associations, sector-specific service centres, lobbies, labour unions, chambers of commerce, and local elites, are playing crucial roles in building local “institutional thickness” that engenders economies of association (Amin and Thrift 1995).

The importance of economies of association has changed the core of economic coordination from the idea of government to governance. As Stoker (1997, p.10) stated, “Governance is about governmental and non-governmental organisations working together”. Murdoch and Abram (1998, p.41) interpret the shift from government to governance as “new institutional arrangements come into being which promote partnerships, alliances and forms of government at a distance”.

Porter’s cluster theory also calls for a much broader scope of economic coordination to bind firms, governments, and various organisations together (Porter 2000). In the development of local clusters, it is crucial to include firms of all sizes as well as representatives of different interest groups, rather than excluding certain actors, especially small, discrete but numerous ones. Local development should be as nonpartisan as possible and should remain independent of any party or administration’s political agenda. Although there might be sceptical, parochial, and opportunistic actors, a successful cluster should incorporate and communicate with them to improve mutual understanding. Then, it can ensure that the majority of actors will participate in activities that generate collective interest. Porter (2000) also emphasises the important role of private sector leadership. He argues that private-led project with active government participation will have a better chance of success than a top-down government-led project. Private enterprises usually can better identify the opportunities and threats in market competition. Also, private sector leadership also reduces the political content of a project and takes advantage of the private sector’s superior ability in practical implementation. Strong senior champions are needed in both government and the private sector.
Entrepreneurial leadership and the involvement of opinion leaders characterize virtually all successful initiatives. Governance, however, should avoid becoming a regional corporatism that relies on a small elite drawn from the regional government offices, local authorities, development agencies, the business leadership and mayors wielding extraordinary powers (Amin 1999).

**Learning economy in rural areas**

The economic stagnation of rural and peripheral areas can be attributed to weak financial capabilities of firms, ‘second best’ technologies, and dependence on external knowledge sources. Learning concept can be applied to less favoured regions (LFRs) as well as more advanced ones (Florida 1995). Incremental notions of innovation suggest that branch plant and low-technology regions can also be repositories of forms of practical know-how that provide localised competitive advantage (Malmberg and Maskell 1997). Poor learning characteristics internal to LFRs themselves are considered as more deep-rooted reasons of their backwardness (Amin 1999). The growing divergence between strong and weak territories is largely a divergence in orientation toward innovation-prone and innovation-averse regions (Rodríguez - Pose 1999). Prospects for local development are therefore highly dependent on their capacity to adapt to change (MacKinnon et al. 2002). “Learning is a long process that can be achieved only through a distinct form of intervention, one that creates new informal rules, routines, and conventions between economic agents. It is precisely this new goal that should be the target of industrial policy” (Storper et al. 1998, p.5).

Doloreux and Dionne (2008) provided a thorough analysis of a regional innovation system in the peripheral areas of Québec, Canada. It shows that local public organisations can provide stability to a modest and durable innovation system. It demonstrates that a regional
innovation system not only relies on network of firms, but also builds on cooperative network between local public organisations (Doloreux and Dionne 2008). The institutional basis of local public organisations in rural areas is usually originated from agricultural production and business. As the rural areas are industrialising, these public organisations adapt to new challenges and continue to serve the local economy.

However, the efficacy of local buzz in rural areas tends to be very limited. Local firms need to source external knowledge by employing different search strategies (Lagendijk and Lorentzen 2007). Local firms are able to innovate based on knowledge inputs from mainly external customers and suppliers, and to follow global trends through the use of various media and attending exhibitions. They are capable of utilising new knowledge in solving practical problems, not only by copying, but also by adaptation. By using their networking and learning capabilities, they can create an innovative economy built on external knowledge resources (Lagendijk and Lorentzen 2007).

**Critical discussion: conceptualising economic linkages in territorial economic system**

As the literature review reveals, economic linkages are generated to fulfil systematic demands of the economy. In other words, economic linkages do not stand alone as an independent mechanism. Therefore, it is necessary to situate the analysis of economic linkages within an appropriately defined territorial economic system. In this light, a Territorial Economic System (TES) indicates a particular geographical locus which has managed to host a necessary set of actors, institutions, and activities that constitute a coherent economic system (Maillat 1995). TESs can take various forms as a result of different interpretations of what the key drivers, structures, and mechanisms are. As an explorative
step towards the specific conceptual framework of TES for this research, theoretical insights were drawn from three major bodies of literature (namely, growth pole discourse, Global Production Network (GPN) discourse, and learning region discourse) to identify the key conceptual components and processes of a TES. Here, we give special attention to how different forms of TESs conceptualise the idea of economic linkage and integration.

In growth pole discourse, propulsive industrial sectors are seen as the key economic driver. Economic linkages are industrial linkages between firms in propulsive sectors and suppliers. The whole economic system is conceptualised as a self-contained production system (Glasson 1978). The main economic processes are purely market-driven matches between demand and supply. The formation of economic linkages is considered as automatic spread and backwash effects; supply sides are expected to expand in response to the pull of a propulsive sector’s demands (Richardson 1976).

In growth pole discourse, small towns have two main roles: on the one hand, small towns are the growth poles in respect to their rural hinterlands; on the other hand, small towns are at the receiving end of spread or backwash effects of a nearby growth pole – normally a city. Urban-rural integration is considered as functional interdependence between city (town) and rural hinterlands, which can be achieved through the formation of direct trade linkages between urban and rural areas. Firms and governments are the only two main actors emphasised in pole-hinterland systems, in which firms are functionally linked and coordinated by market mechanisms, whereas governments provide necessary infrastructure to support these firms. Therefore, growth pole theory essentially proposes a spatially bounded territorial economic system. The motivation of firms to agglomerate is to reduce transport costs in interfirm trade (Tacoli 1998). Nonetheless, growth pole theory is important as it identifies the presence of “economic space” where propulsive industrial activities are the
cornerstone of territorial economic dynamics. However, the constraints of growth pole theory are also evident as the interactions between economic actors become increasingly complex in contemporary economies. The main problem of growth pole theory is that it neglects the interactions with other economic systems. The globalisation of the world economy has challenged spatially enclosed economy and demands a better understanding of economic linkages that are expanding and deepening.

In this respect, the GPN discourse makes progress by constructing a multi-system view of TESs (Dicken et al. 2001). Drawing upon the GPN perspective, Coe and Hess (2011) proposed a conceptual framework consisting of three key components: global production networks, ‘regional’ institutions, and regional assets. The key processes in this framework focus on the strategic coupling of regional assets into the global production network, an interface mediated by ‘regional’ institutions across different scales. Regional assets include both physical assets, like infrastructure, labour and land resources, and nonmaterial assets, like local trusts, conventions, and culture (Coe and Hess 2011). When interpreted through the conceptual framework of GPN, cities and towns will be the territories where regional assets accumulate and concentrate. The ‘regional’ institutions will point to various actors within the economic systems of small towns, including governments, firms, and intermediate organisations. These actors will create and accumulate “regional assets” that eventually serve the external needs of the global production network. Urban-rural integration can be conceptualised as the strategic coupling of small towns and rural production systems into the wider regional, national, and global production network.

The merit of the GPN framework is that it proposes a multi-scalar analytical framework, which combines both external dynamics driven by multinational corporations and internal dynamics underpinned by local actors. A crucial issue neglected in the GPN framework is the
complex nature of interactions between local and external actors in the strategic coupling processes. It says little about how local actors were able to know about demands from the external market. Furthermore, it assumes that the GPN will send open and clear messages about its demand to localities across the world; therefore, whether a locality can succeed in integrating into the GPN depends on the executive capacity to act upon these messages. However, such a level of certainty in contemporary economy is rather rare. More likely, economic actors act upon their subjective interpretations and expectations of highly vibrant external conditions (Simon 1991). In this light, the problem of the GPN framework is that it still conceptualises economic interaction as functional ‘coupling’ based on industrial linkages in the production system rather than dynamic interactions between reflexive actors.

Findings from the learning region discourse can complement the missing part of the GPN framework. Research on learning economy has called for knowledge and learning to be given a central role in the analysis of economic changes (Lundvall and Johnson 1994). Here, learning is defined as the activities involved in reflections upon the status quo and the simultaneous sourcing and processing of knowledge in order to solve any problem that has been identified (MacKinnon et al. 2002). The increasing capacities of economic systems to change and adjust are captured by Storper (1997, p.28 original emphasis) in his conclusions on the new “metacapacities” of modern capitalism:

First, the revolution in production, information, and communication technologies permits vast expansion of the nature and spheres of control of firms, markets, and institutions, involving deeper and more immediate feedbacks from one part of these complex structures to others than ever before, dramatic cheapening of many forms of material production, and great increase in variety of material and intangible inputs and outputs. Second, there has been a vast spatial extension and social
deepening of the logic of market relations, in part facilitated by the technological leap (especially through the cheapening of telecommunications and media as vehicles of market relations, and through the extension of physical infrastructure). … Third, and combining the effects of the first two processes, there has been a generalisation of the “grid” of modern organisational methods, bureaucratic rules, and communicational processes to more dimensions of economic and noneconomic life than ever before.

As these “metacapacities” greatly enhance economic reflexivity, they also lead to the manufacturing of new kinds of risks, which are expressed through the redefinition of competition – what does it take to win and how is it possible to lose (Beck et al. 1994)? Such redefinition of competition is more about constructed images rather than “real” material reality. However, these interpretations and images will shape material reality as they are “diffused and accepted and become the bases on which people act” (Storper 1997, p.29). Consequently, the challenge imposed upon actors is that winning has become a moving target, the content of which is fluid and open to interpretation. Economic activities are fundamentally driven by a cognitive model of reality and subsequently shape the institutional structure of the economy (Boschma and Lambooy 1999). Therefore, the structural constraints of economic systems are actually fluid and flexible, and respond to the learning dynamics of the actors (Amin 2010).

In learning region discourse, cities and towns are considered as territories where actors participate in learning collectively. Urban-rural integration is seen as the result of capacity building in the rural economic system, as local actors are able to absorb external knowledge (especially those in urban areas) effectively to promote local competitive advantage. In terms of urban-rural relations, learning region discourse refutes the core-periphery structure in the
growth pole and the GPN discourses. Instead, it emphasises that rural economic systems can compete with urban economic systems by constructing their locational competitive advantages through continuous learning (Lagendijk and Lorentzen 2007).

So far, we have learnt that an appropriate conceptual framework for territorial economic systems has to take into account the agglomeration of industrial activities, the multi-system network, and learning dynamics. This research will work on these insights and construct a conceptual framework of TES specific for the analysis of the economic linkages of small towns in chapter 4. Before moving to the discussion of the conceptual framework, the next chapter will first deal with the specific context of urban-rural relations in China, in which the economic linkages of small towns are situated.
Chapter 3 Urban-Rural Relations in China

Two Chinas in the Maoist era: urban China and rural China

China is a country of deeply rooted urban-rural dualism (Li 2008; Putterman 1992). Such urban-rural dualism is systematically institutionalised in China’s economy, society, and politics. During the 1950s, the newly established communist government rolled out a series of administrative, organisational, and institutional arrangements that laid down the structure of urban-rural dualism, creating two Chinas – urban China and rural China (Huang 2008). The analysis of urban-rural relations in China, therefore, is situated in a dualistic structure. Notably, China’s renowned achievements during the reform era can largely be attributed to adjustments in urban-rural dualism. Nonetheless, decades of reform have by no means eliminated such urban-rural dualism, partially due to what is claimed to be a gradualist path towards reform (Liew 1995). Many of China’s most pressing development issues can still find their roots in pre-reform urban-rural dualism.

This section examines the key characteristics of China’s administration, economy, society and polity that create this urban-rural dualism. More explicitly, this section looks at three key aspects of urban-rural relations: first, the set-up of urban and rural administration and the implications of their hierarchical orderings; second, the spatial and sectoral division of labour between urban and rural areas; and third, the different types of production units in urban and rural areas.
City and county: urban and rural administration

Urban-rural dualism is firstly manifested in the division of territorial administration. During the 1950s, for all county level administrative units in China, central government designated ‘cities (shi)’ as urban administration and ‘counties (xian)’ as rural administration. Thus, ‘cities’ would govern existing large and medium size urban centres and ‘counties’ would govern small towns and rural areas. For the different natures of urban and rural areas, central government also designed different organisations and regulations operating within them. In the planned economy, such territorial demarcation functioned as a geographical reference when the state located imperative economic activities.

China’s administrative hierarchy and urban-rural typology

There are four basic ranks in China’s territorial administrations: in descending order, province (sheng) – prefecture (diqu) – county (xian) – township (xiang)² (see Figure 3.1). City (shi) and town (zhen) are officially designated territorial units to accredit their urban attributes. Town (zhen) would always fall within the ranks of township (xiang). However, city (shi) in china can now be found in the administrative ranks of the province, prefecture, and county.

_________________________

¹ 市
² sheng (省) – diqu (地区) – xian (县) – xiang (乡)
In 1955, central government first designated cities and counties. Until 1982, most counties were independent from cities. In order to guarantee the supply of rural resources to urban centres, in 1983, central government announced the reform of prefecture-level administration and implemented the system of ‘cities administering counties’.

Figure 3.1 Hierarchy of territorial administration in China

Source: modified from Abramson (2006)
The ‘city administering county’ (*shi guan xian*) reform was operationalised in three ways (Ma 2005). The first approach was to ‘merge prefecture with city’ (*dishi hebing*). A number of ‘province administering cities’ were merged with the prefectures in which the cities were located, and the counties that used to be under such a prefecture were placed under the newly established prefecture level ‘city’. The second method was to ‘abolish prefectures and establish prefecture level cities (*di gai shi*)’. This operation has been carried out since the 1990s in economically less developed prefectures. This method was to abolish a prefecture and promote a ‘prefecture administering city’ located therein to the rank of prefecture, and subordinate counties under the newly designated prefecture level city. The third method was more radical in the reorganisation of prefecture level administration. Some counties were promoted directly to prefecture level cities to enable them to administer surrounding counties. In 2011, 85% of the total prefectural level administrative units were prefecture level cities. Prefectures only remain in remote ethnic areas. As a result, most counties are administered by cities, which means urban administrations are empowered to have control over rural administrations.

In the reorganisation of administrative division since the early 1980s, the number of county level cities and city administered districts had risen (Abramson 2006). Most of them have been converted from rural counties to expand city administration in ways known as

---

3 市管县
4 地市合并
5 地改市
‘converting county to city (xian gai shi\textsuperscript{6})’ and ‘annexing county as city administered district (che xian she qu\textsuperscript{7})’. As a result, city administration has greatly extended to large parts of rural areas where a lot of small towns are located. Administration restructuring has made rural administration – xian – subordinate to urban administration and has added a level of hierarchy above rural administration. As position within the hierarchy ordering was tied to power and resource allocation in China, rural areas were at a huge disadvantage because of their low hierarchical position.

The official urban-rural classification in China has been always based on urban-rural administrative divisions (Chan 1994). Before the ‘city administering county’ reform, designated cities and towns were urban areas, while the rest were rural areas. However, such administrative classification of urban-rural areas corresponded to the morphological classification based on built-up areas, densities etc. Now, urban administrative restructuring as well as urbanisation dynamics have made urban-rural classification a rather complicated task (Chan and Hu 2003).

The latest regulations for urban-rural classification were published by the National Bureau of Statistics of China in 2006. Of the new criteria, the fundamental units of the classification are Resident Committees and Villager Committees approved by the Ministry of Civil Affairs. Urban Areas comprise City Area (chengqu\textsuperscript{8}) and Town Area (zhenqu\textsuperscript{9}). City Areas are areas

\textsuperscript{6} 县改市

\textsuperscript{7} 撤县设区

\textsuperscript{8} 城区

\textsuperscript{9} 镇区
delineated by the regulations within legal cities (city administered districts under a prefecture level city or county level city). City Areas include: 1) the areas of Resident Committees under the administration of Street Offices; 2) the areas of other Resident Committees or Villager Committees which are adjacent to city infrastructure. Town Areas are areas delineated by the regulations within designated towns and areas which are not classified as City Areas. Town Areas include: 1) the areas of Resident Committees under the administration of Designated Towns; 2) the areas of Villager Committees which are adjacent to town infrastructure; 3) special areas of independent settlements (like mining fields, development zones, institutions of R&D, universities, farms and forest farms, etc.) with a total population over 3,000 people. Rural Areas are other areas outside the delineated City Areas and Town Areas. Both Urban Areas and Rural Areas are subdivided (see below).

![Urban-rural classification in China](image)

Figure 3.2 Urban-rural classification in China

Source: By author

Even though the latest urban-rural classification tried to amend the previous one with more detailed consideration of the extensions of built-up areas, it is still inappropriate to use such official urban-rural classification as the analytical basis of urban-rural development issues in this research. There are several flaws in the official urban-rural classification. The category in
which a place falls can be altered completely by changing its administrative status (Zhou and Ma 2003). For example, if a county has just been promoted to a county level city, some previous Town Area type units would become City Area type units. However, the difference between Town Area and City Area is not clear. The criteria for designation of a town and a city are not integrated. Moreover, both sets of criteria are far too out of date. For designation of towns, the criteria were last amended in 1984 and were rather simple and unidimensional as only the total population and the non-agricultural population are considered. The latest revision of designation criteria for cities was in 1993, using indicators such as population density, GDP, industrial output, fiscal revenue, and public infrastructure.

Regardless of the credibility of census data, the actual designation of towns and cities does not necessarily depend on the fulfilment of these criteria. Or rather, it is more of a result of political campaigning (Ma 2005). The acquisition of town or city status is not like a title granted whenever a place has achieved these official requirements. From the central government’s point of view, the promotion of town from township or city from county is more a strategy of macroeconomic control (Zhang and Wu 2006). The designation of towns or cities would happen in batches when central government ‘decided’ there was a need to increase the number of towns and cities. Criteria were not strictly applied. The outdated and low criteria for town designation have led to an excess of towns (nearly 20,000 towns compared to 650 cities). During the years from 1994 to 1997, 99 counties had been promoted to county level cities. However, only six of them had met the 1993 criteria for designating cities (Ma 2005). So the administrative status of town and city cannot reflect the real status of the development level of cities and towns.

Discarding the official urban-rural classification, this research will approach the problem of differentiating urban and rural areas in a more practical fashion. First, the administrative units
of ‘cities’ and ‘counties’ are adopted for urban-rural classification, with ‘cities’ as urban and ‘counties’ as rural. The reason for using these administrative units is that ‘cities’ and ‘counties’ constitute basic governance units with a complete set of state and non-state organisations and well-defined boundaries. If not specifically noted, ‘cities’ in this research indicate original ‘city administered districts’ before the urban administrative restructuring. Second, what is usually neglected is the temporal dimension of urban-rural classification. A very simple reality is that rural areas which develop would usually urbanise. As this research aims to tackle the questions of urban-rural development, it is essential to take a dynamic perspective which focuses on processes. Therefore, in locating the research objects – small towns in rural areas – this research would also consider small towns in county level cities or city administering districts. These county level units suit the purpose of this research since they have gone through a rather rich experience of rural-urban development. Most importantly, they have somehow become winners in local and regional development. The secret of such success is exactly what this research aims to unveil.

**Counties and small towns**

Counties have always been the most stable administrative units through Chinese history (Oi 1997). In the administrative sense, the territory of a county is constituted of towns (zhen) and townships (xiang). Town (zhen) is an officially designated urban status, as a promotion from township (xiang). Town (zhen) status would be officially approved by the provincial government and then the entitled township level unit would become a ‘designated town (jianzhi zhen10)’. Those townships which do not have town status are also referred to as ‘non-

---

10 建制镇
designated town (fei jianzhi zhen\textsuperscript{11})’ or ‘market town (jizhen\textsuperscript{12})’. For the sake of clarity, the term formatted as town or township with its Chinese translation in bracket – ‘town (zhen)’ or ‘township (xiang)’ – would always indicate the administrative units. Meanwhile, ‘town’ or ‘small town’ refers to the common understanding of a small urban centre in rural areas.

The criteria for designation of town (zhen) – last amended in 1984 – are as follows:

(a) The township (xiang) hosting county level government;

(b) For a township (xiang) with a total population of less than 20,000, the township (xiang) may be granted town status if the non-agricultural population in the township seat exceeds 2,000;

(c) For a township (xiang) with more than 20,000 people, the township (xiang) may be granted town (zhen) status if non-agricultural population in the township seat accounts for 10% or more of the total township population;

(d) If in remote areas, mountainous areas, small mining fields, small harbours, tourist areas or border areas, a settlement with fewer than 2,000 people employed in non-agricultural work may also be granted town (zhen) status if necessary (Ministry of Civil Affairs, 1984)

In essence, both town (zhen) and township (xiang) would govern a small town and its rural hinterland. The difference is that town (zhen) tends to have a bigger central town area with a

\textsuperscript{11} 非建制镇

\textsuperscript{12} 集镇
larger urban population and stronger economy. Therefore, the urban system of a county consists of a set of small towns (Lin 1993). The pattern of a county’s urban system depends on the relative size of these small towns. Usually, the county seat, defined as the town (zhen) which hosts the county government, would serve as the administrative, economic, and social centre of the whole county territory (Fei 1986). The county seat would tend to host the largest town of the county, with other towns (zhen) hosting smaller towns, and townships (xiang) hosting the smallest towns. However, the urban system of a county could also be rather evenly distributed without a primal town in the county seat (Tan 1986). Such a pattern can be found in economically developed counties, where each town has its own dynamic industrial basis (Wang and Hu 1999).

The county government would oversee, guide, and promote the development of the county. Therefore, county government plays a coordinator’s role to balance the different interests of the subordinate towns (zhen) and townships (xiang) (Oi 1997). In a planned economy, the county government is responsible for issuing targets, plans and budgets which would be broken down into sub-targets, sub-plans, and sub-budgets for towns (zhen) and townships (xiang). The county government then employs an extensive reporting system which gathers reports from town (zhen) and township (xiang) governments and monitors their performance. At the same time, county government is responsible for facilitating appeals for assistance from towns (zhen) and townships (xiang). The degree of county involvement in a town (zhen) or township (xiang) depends on the importance of the project to the overall well-being of the county (Oi 1997, p.101).
The functional nature of small towns during Maoist era was quite simple. The ‘socialist transformation’ (shehuizhuyi gaizao\(^{13}\)) of industry and commerce in the early 1950s forced many handicraft workshops and retail shops in the small towns to close down, which greatly reduced the economic diversity of small towns (Lin and Ma 1994). Moreover, in the late 1950s, the state implemented the policy of ‘unified procurement and distribution’ (tonggou tongxiao\(^{14}\)) of grains, cooking oil, cotton, and other essential goods. This policy allowed the state to monopolise trade, which further eroded the commercial function of small towns (Lin and Ma 1994). As a consequence, small towns became merely administrative centres and transit points in the distribution of goods controlled by the state (Fei 1986).

Based on an administrative division of rural and urban areas, China’s land ownership system also featured an urban-rural dualism. In essence, urban land is state-owned and rural land is collective-owned (Ding 2003). In terms of the actual ownership holder, urban land is directly owned and managed by local governments, and rural land is owned and managed by village committees, consisting of a handful of village cadres. Moreover, the financial system is also different between urban and rural areas. The financial organisations operating in urban areas are state-owned banks, while in rural areas they are Rural Credit Cooperatives (RCCs) (nongcun xinyong hezuoshe\(^{15}\)). State-owned banks serve exclusively for urban projects and RCCs serve exclusively for agricultural production in rural areas (Allen et al. 2007).

\(^{13}\) 社会主义改造

\(^{14}\) 统购统销

\(^{15}\) 农村信用合作社
Industrial urban and agricultural rural: urban-rural division of labour

Given the size and population of China, running a planned economy is not an easy task. Since all plans and commands are made by the elite minority at the top, these central ‘planners’ need an economic system that resembles a machine which has to be not only easy to operate but also functionally reliable. In designing such a machine, urban-rural dualism in administration is advanced to provide a locational reference for economic activities. In essence, urban administrations host industries (mainly manufacturing) with urban residents as factory workers; rural administrations host agriculture with rural residents as farmers.

Under the communist regime, the private sector was abolished due to violation of ideological correctness. In the early 1950s, the socialist transformation of the economy substantially dismantled market mechanisms and eliminated private ownership in the agricultural and industrial sectors. Given the economic situation at that time, agriculture and heavy industry were identified as priorities for development. A series of institutional and organisational arrangements were made to guarantee a well-functioning planned economy that featured urban-rural dualism. The following section will discuss how labour is mobilised and the organisational characteristics of production units.

The hukou system: institutionalising the sectoral role of the individual

The household registration system, also known as the hukou\textsuperscript{16} system, has been widely discussed in urban studies literature (Chan and Zhang 1999; Cheng and Selden 1994; Wu and Treiman 2004). Researchers’ interests have concentrated on how the hukou system has

\textsuperscript{16}户口
institutionalised discriminative treatment of rural migrants in the post-reform situation. The reason why such a system was designed is less mentioned. The hukou system is the key institutional arrangement for mobilising labour and distributing consumer goods in the planned economy (Han 1999). It institutionalised the sectoral role of individuals to suit the urban-rural production structure (Lin et al. 1998).

By definition, the hukou system is a registration system that records a resident’s personal information (name, date of birth, gender), place of registration, and urban/rural status (Cheng and Selden 1994). It is the last two items that are specific to China’s hukou system. A person’s urban/rural status would be based on whether their place of registration is under urban or rural administration. Such arrangements facilitated a series of regulations on labour during the Maoist era. First, labour mobility was restricted by confining a resident within his/her place of registration. This regulation thus disallowed both urban-rural migration and interregional (across counties or cities) migration. Second, urban/rural status was locked to a sectoral role. An urban resident would do industrial jobs and a rural resident would do agricultural jobs. This regulation was the institutional root of the sudden reduction of economic diversity in rural areas, which severely weakened the economic foundation of rural areas (Ma and Fan 1994).

The hukou system was rather necessary in a planned economy (Han 1999). Without the market as the distribution mechanism, the state needed to know the exact population of a place to decide how many resources should be allocated to it. If labour mobility had been allowed, it would have been extremely costly for the state to monitor population changes everywhere. The heavy industry strategy adopted by the newly established communist government was another reason why the hukou system was implemented. In order to concentrate resources on heavy industries in urban areas, the state had to confine the majority
of the population to rural areas and agricultural production so as to bring down the level of consumption (Lin et al. 1998).

_Urban state-owned enterprises and rural people’s communes_

State-owned enterprises (SOEs, _guoyou qiye_\(^{17}\)) in urban areas and people’s communes (_renmin gongshe_\(^{18}\)) in rural areas were the two types of production unit within the urban-rural dualism. They are responsible for organising industrial and agricultural production as well as caring for the welfare of urban and rural workers. Though both types of organisation produced according to a central plan, the rural people’s communes were collectively-managed and therefore enjoyed a higher level of autonomy than the hierarchically controlled SOEs (Watson 1982). The production culture also varied between SOEs and people’s communes. Workers in SOEs tended to be rather passive and order-following types, who enjoyed secure job positions and routinised work procedures without any pressure of competition. Therefore, SOE workers were often referred to as ‘eating from an iron rice bowl’ (_tie fanwan_\(^{19}\)) in the sense that an iron bowl could never smash (Benson and Zhu 1999). On the rural side, farmers in people’s communes tended to be more cooperative. Unlike the workers in SOEs, who distanced themselves from the state and were comfortably reconciled following rules, farmers in the people’s communes had more involvement in the decision making processes, especially those concerning the distribution of material compensation (Feuchtwang 1997).

\(^{17}\)国有企业

\(^{18}\)人民公社

\(^{19}\)铁饭碗
**SOEs: organisational features and relations**

Under the heavy industry strategy SOEs, as the key production units, were also the central points of wider inter-organisational relations, especially relations of SOEs with governments, banks and science and technology institutions. First, the government was the actual decision maker for SOEs because the government was the central planner who decided the output quantity required from a SOE as well as how much resources would be accordingly allocated. Since all SOE jobs were permanent and came with a whole package of state welfare, the government would also hold the decision rights about hiring workers for SOEs. Nevertheless, the central planner would still need to rely on information fed back from below. There would be problems when asymmetry of information existed between different hierarchies (Groves et al. 1994). People from below tended to distort the information to suit their self-interests. The longer the hierarchical distance from the production floor to the state agencies, the more likely information was to be distorted to gain a bargaining advantage for those below (Lin et al. 1998). As Walder (1987, p.36) put it, “in their dealing with industrial bureaus and government agencies, managers engage in continual face-to-face bargaining over the setting of a mandatory production plan…, and in procuring low priced supplies, subsidised credit and tax breaks. The bargaining, invariably including a measure of deception, and sometimes the cultivation of official favour, has several goals”.

The financial and price system was also tailored to supporting SOEs under the strategic goal of heavy industry development (Bramall 2006). Heavy industry was a capital intensive industry with a large lump sum investment and a long return period. For less developed countries like China in the 1950s, key machineries need to be imported. Capital, as well as foreign exchange, was scarce, so the market price would be high. In a market economy, economic surplus would also be scattered among households, which would pose barriers for
the state to concentrate resources (Lin et al. 1998). As a response, the state would suppress interest rates, foreign exchange rates, wage rates, and prices of raw materials and other inputs (Lin et al. 1998). Banks were all owned by the state and facilitated the state’s capital and foreign exchange allocation plans. Therefore, there was no role for banks in assessing the risks of loans to SOEs. As SOEs were not allowed to go bankrupt, banks were always supposed to bail out their losses (Steinfeld 2000).

China’s economic system in the planned economy featured a dualist structure of organisations specific to either urban or rural areas, with very limited inter-organisational interaction (Lo 1997). Following a linear model of technological innovation, research, technological adaption, implementation and manufacturing were undertaken by functionally separate organisations, whose activities and interactions would be managed by the State Planning Commission (SPC) (Liu and White 2001). Therefore, unlike US manufacturing firms which institutionalise R&D departments so that they are internal to the firms, China’s SOEs were separated from the R&D function and their technological inputs came from external organisations and were arranged by the state (Naughton 1990). Under the planned economy, SOEs had neither mandate nor incentive to introduce technological innovation into production. R&D institutes included the Chinese Academies of Science, focusing on basic research (regulated by the State Science and Technology Commission (SSTC)), universities focusing on training and research (mostly overseen by the Ministry of Education), and other industry-specific research institutes for applied technology (subordinated to industrial bureaus). As the performance of SOEs would not affect evaluation of these R&D institutes, they had few incentives for technological transfer to SOEs. At the same time, SOEs were so dependent on vertical interactions with governing authorities that they had much less interest in horizontal interactions with other SOEs or R&D institutes (Liu and White 2001).
People’s Communes

Rural people’s communes were established in the late 1950s when the existing Agricultural Production Co-operatives (APCs, nongye shengchan hezuoshe\(^{20}\)) were amalgamated under state direction. In 1959, there were about 25,500 communes with an average of 5000 households (about 22,000 people) in each. APCs were smaller units with an average of 160 households and were mostly ‘semi-socialist’, which allowed private ownership of means of production (such as tools, animals, and farm machinery). By Mao’s rationale, it was possible to increase agricultural output through large projects (such as land consolidation for more arable land and construction of irrigation systems). Guided by this rationale, the people’s commune system was an organisational tool to mobilise a large amount of labour and centralise control over distribution between investment and consumption (Nolan 1983).

As a result, the people’s commune system scrapped all private ownership and imposed rationed consumption. Income distribution was largely equalised among APCs. These changes dramatically reduced individuals’ incentive and therefore productivity dropped. The people’s commune system was modified by the central state after severe contraction of farm output, and population growth around 1960 (Nolan 1983). The basic accounting and production organising unit was decentralised to the production team with an average of 24 households. A typical rural commune would then consist of three levels of units: the commune, the production brigade, and the production team. The commune and brigade would decompose annual production targets and assign them to each production team who

\(^{20}\)农业生产合作社
would then make more specific plans and allocate work among team members (McMillan et al. 1989).

Income distribution among team members largely depended on an estimate of each member’s labour contribution. Members were often classified into different grades according to their technical skills, their capacity for work, and their success in meeting the labour norms set up by the team. Members earned work points (gongfen\textsuperscript{21}), counted by working hours. Due to a grade system, the same working hours could correspond to different numbers of work points, as a mechanism to reflect the quality or efficiency of one’s work (McMillan et al. 1989). More significantly, controls over the private sector were relaxed. Commune members were allowed to cultivate ‘private plots’, to own farm animals, and to undertake various household side line activities.

During the early 1970s, the central government felt the urgency to promote agricultural modernisation to boost food output. Therefore, the state adopted a rural industrialisation strategy which encouraged communes and brigades to set up factories, known as Commune and Brigade Enterprises (CBEs, shedui qiye\textsuperscript{22}) (Bramall 2006). At that time, CBE development was strongly agriculture-oriented and was involved mainly in the ‘five small industries’ (wuxiao gongye\textsuperscript{23}) – fertilizer, cement, farm machinery, energy (coal and hydropower), and iron and steel. The National Conference on Rural Mechanisation of September 1971 further made rural industry eligible for bank loans and fiscal support (He

\textsuperscript{21}工分

\textsuperscript{22}社队企业

\textsuperscript{23}五小工业
2004). Consequently, bank lending to the CBE sector increased greatly during the 1970s (Bramall 2006). Another important factor for CBE development was that the Cultural Revolution had disrupted production in urban SOEs and had compelled the ‘sending down’ of cadres, technicians, and workers, who restored part of the SOE production capacity within rural CBEs (Wong 1988). However, CBE development was volatile because of recurrent political campaigns and ideological checks (Bramall 2006).

**Reform and urban-rural conditions**

The year of 1978 was when the central leadership of the Chinese Communist Party (CCP) for the first time officially announced decisions about pro-market economic reform at the Third Plenary Session of the Eleventh Central Committee of the CCP. Though 1978 marked a significant diversion from the Maoist approach, it was misleading to consider China’s reform as an isolated event. On the contrary, reform is an overarching ideological framework under which a series of changes were made over a prolonged time period. What could happen was that later decisions could sometimes revise or contradict earlier ones. Just as reform was not linear over time, it showed great spatial variance as well. The implementation and effects of these economic reforms were often regionally and locally specific.

With a gradual and experimental approach, China’s reforms did not radically change the urban-rural structure described in the previous section. The city and county administration and household registration systems were still in operation in the post-1978 era. More explicitly, reforms were undertaken within the urban-rural dualism, rather than replacing it. As reforms continued and deepened, urban-rural conditions kept changing, while urban-rural dualism could be either strengthened or weakened as policies changed. The following section
aims to examine the processes and effects of post-1978 reforms with special focus on how reforms have altered urban and rural conditions and urban-rural relations.

**The rural as the pioneer of reform**

The rural areas had always been a source of bottom-up initiatives. As rural people received much less state welfare than urban residents, they had to take much more responsibility for their own benefits. Therefore, rural people are more motivated to appeal for changes. Such motivation could even lead rural people to take risks in experiments without government approval. If rural experiments worked out, the reformist government might authorise those practices and adopt them as formal reform policies.

*Key rearrangements of rural policies*

During the first three or four years of reform, it was in agriculture that the most substantial changes occurred (Nolan 1983). A step-by-step process of de-collectivisation had taken place inside the people’s commune system. As described in the previous section, during the late 1970s, central government had already decentralised communes into much smaller production teams as basic units for agriculture. A responsibility system had already been introduced before 1978 which allowed production teams to keep residual outputs after completing assigned targets (Zweig 1983). Due to ideological barriers, a responsibility system operating at the household level was still forbidden. Some peasants in poor areas decided to secretly contract production to households, as in the widely reported story of Xiaogang village. Household level contract production was controversial among top party officials and local cadres were very cautious towards such practices due to concerns of political correctness (Zweig 1983). A household responsibility system was not officially sanctioned until September 1980, even though it had been secretly implemented in many
places. In this case, Watson (1982, p.38) wrote, “once collective control over labour began to relax … tremendous pressures came from below to force the pace of change faster and further than the central leadership had at first envisaged. At each stage the Party had to sanction and justify changes that had already taken place”.

The household responsibility system greatly incentivised individuals to work harder and more efficiently. Together with other policies to boost agriculture (such as raising the state procurement price, applying more chemical fertilisers, and investing in more agricultural machinery), agricultural output had increased by 61% during 1978 to 1984 (McMillan et al. 1989). While agricultural productivity improved greatly, the problem of over-employment in the agricultural sector became severe. During the early 1980s, hukou control was still so tight that rural-to-urban migration, as well as interregional migration, was very rare. There was a pressing demand for non-farm employment for surplus rural labour.

Parallel to rearrangements in agriculture, rural industry was also an important target of post-1978 government policies. During 1978 to 1981, the state embarked on a readjustment programme focusing on re-allocating investment between heavy and light industry (Bramall 2006). Such readjustment in the rural areas took the form of closing down inefficient agricultural CBEs and encouraging light industry (such as textiles) rather than the ‘five small industries’ (Mo 1987). However, the effects of readjustment were rather transitory as the absolute change in the balance between heavy and light industry was rather small (Bramall 2006). Nonetheless, the readjustment programme was important in preventing waste of scarce investment and skilled labour in the inefficient CBE sector and heavy industries in rural areas (Wong 1988).
The application of the household responsibility system had gradually dismantled people’s communes, which were converted into townships and villages. CBEs, as well as enterprises set up by township and village governments (also including those set up by rural individuals after 1984), were then named township and village enterprises (TVEs, xiangzhen qiye\textsuperscript{24}). Many scholars have argued that it was the rapid growth of TVEs that marked one of the most distinctive features of China’s reforms (Wong 1988; Naughton 1990; Naughton 1996; Huang 2008). Then again, the surge of the TVE sector was induced by synergetic effects of government policies and external economic conditions in the early 1980s.

The existence of a product market was the prerequisite for TVE development. However, the product market was not specifically created to promote the TVE sector. On the contrary, it was the key element of SOE reform (Lin et al. 1998). In order to boost the productivity of SOEs, central government adopted a contract responsibility system, which allowed SOEs to sell their above quota output to the market. SOEs could also purchase inputs from the market to expand production. At the same time, the government was determined to introduce competition for SOEs by encouraging development of collective TVEs, foreign companies, and eventually private enterprises (Bramall 2006). Therefore, China’s product market was running on a dual track system with the ‘old track’ being the planned economy and the ‘new track’ being the market economy. The new track provided the TVE sector with access to key raw materials, equipment, and markets. Financial policies were also favourable towards the TVE sector with loosened control over bank lending and a low tax rate (Naughton 1994). Moreover, the agricultural reform had greatly improved living standards of rural residents who created a great market demand for consumer products. To meet this demand, the TVE

\textsuperscript{24} 乡镇企业
sector was able to respond quickly by focusing on producing ordinary household products which were neglected by SOEs. Arguably, hukou control had also retained agricultural surpluses and abundant labour in rural areas, providing a resources base for rural industrial initiatives (Lin et al. 1998).

Economic linkages with urban firms played an important role in TVE growth. Because land and labour in rural areas were much cheaper than these in urban areas, TVEs became an organisational vehicle for SOEs to exploit such benefits in the absence of land and labour markets. Some SOEs subcontracted their production to TVEs, providing the necessary machines and technical support. TVEs could also buy second-hand machines from SOEs in the grey market and hire technicians from SOEs on a temporary basis. Many TVEs grew up as complements to state-run industry. Given their dependence on sources of technology, TVEs tended to concentrate around major cities (Naughton 1994).

Although these government policies, as well as favourable external conditions, were essential to the success of the TVE sector, they were not sufficient to explain why and how the TVE sector was able to make such achievements. There must have been real actors who took real actions to make things happen. Key actors in the TVE sector and their organisational contexts have to be examined to decipher the success of TVEs.

*Explaining the “unexpected success” of TVEs*

The success of TVEs was largely unexpected by central government in two respects: on the one hand, TVEs were not part of the state’s plan (Naughton 1996); on the other hand, the scale and the speed of TVE development had been so significant that the TVE sector became the major driving force of rapid growth in gross national product during the 1980s (Weitzman and Xu 1994). The favourable external conditions would be the only necessary conditions for
the success of TVEs. Therefore, a series of questions have been thrown up around TVEs: What was the nature of TVEs? Who were the actual actors running TVEs? What were their incentives for developing TVEs? How did they manage production, marketing, financing and income distribution in TVEs? And how were the actors’ behaviours shaped by specific organisational contexts?

Although external conditions were favourable to rural enterprises in the early 1980s, these conditions were still much inferior than those in advanced market economies (Gang 1994). Though markets for products were created, markets for assets and production factors remained absent for a prolonged period. Therefore, rural enterprises would have to either utilise local resources or trade on informal markets. The labour market was also geographically segregated by the hukou system. As a legacy of the commune system, key rural resources such as land and other natural resources remained collectively-owned. Meanwhile, private ownership was not legal until the mid-1980s; by then TVEs had already gained momentum (Wong 1988). Given these distinctive characteristics of China’s economic transition, many scholars have argued that TVEs were basically a form of effective institutional adaption to these external conditions (Naughton 1994).

According to orthodox economics literature, collective ownership should perform rather badly, given the agency problem, just as the inefficient SOEs had proved (Lin et al. 1998). Therefore, how collective ownership actually worked out in TVEs demands closer examination. Huang (2008) argues that TVEs are de facto private enterprises. This makes sense at the firm level because TVEs respond to the factor price of the market, face reasonably hard budget constraints (can go bankrupt), and fire workers. It is less accurate when considering the relations among TVEs, local government, and local communities. The ‘collective’ label referred to the fact that TVEs were owned by township and village
governments (TVGs). Village and township leaders are appointed from county level authorities, and they would designate the managers of TVEs. In most cases, township and village officials, with their administrative power, have total control over the property rights of TVEs: control of residual income; the right to dispose of assets; and the right to appoint and dismiss managers (Naughton 1994). Thus, TVEs were never worker cooperatives, where ideally every member would have a say in decision making and income distribution. The local community could gain from TVE growth through employment generation and social services funded by revenues from TVEs (Weitzman and Xu 1994).

Since TVGs were the de facto owners of TVEs, it is essential to understand how governments managed to create successful businesses. We need to examine the relations between local governments and TVEs, the characteristics of rural government officials, their motivation to develop TVEs, how they facilitate access to key inputs, and how they perceived market opportunities and risks.

The relations between the local governments and the TVEs were conceptualised as ‘local state corporatism’ by Jean Oi. In essence, ‘local state corporatism’ was about how local government took on a proactive role in developing local TVEs (Oi 1997). Just like in the agricultural sector, there was also a contracting system in operation for TVEs. There was a competitive bidding process for local villagers to win contracts. The local officials would normally make the decision based on candidates’ personal calibre as well as loyalty and commitment to local development (Oi 1997). Since TVGs retained the ownership, this arrangement left windows for direct TVG intervention into management of TVEs, especially the use of their profits.
As the *de facto* owner of TVEs, local government was institutionalised to situate the costs and benefits of local TVEs within the overall interests of the whole township or village (Oi 1995). Therefore, an individual TVE was not an independent bearer of its own costs and revenues. Instead, all local TVEs succumbed to the collective interests of local development, with the government as the central mediator (Naughton 1994). Collective ownership enabled the pooling of resources, which in turn generated several advantages for TVEs. First, the pooling of resources solved the problem of financing new enterprises. Local government would invest revenues extracted from existing enterprises in new start-ups. Second, the pooling of resources provided an insurance system for local TVEs. Profits from enterprises with better performance could be allocated to support loss-making enterprises. Given the uncertainty of the market, spreading the risks was an essential strategy for collective survival. Third, the pooling of funds could be used to finance infrastructural facilities that would benefit local TVEs as a whole, such as road networks, electricity, and water supply. TVE profits could also be channelled to local social welfare (such as health and education) and improve the quality of local human capital. Fourth, pooling resources gained local government an advantageous position when negotiating bank loans for TVEs. Banks were more willing to lend to TVEs backed by a strong local government with solvency generated by pooling resources (Naughton 1996).

However, these advantages were effective only when TVEs performed well and made profits. The basic rationale of a successful enterprise, regardless of ownership, is to convert inputs into products and sell them at prices higher than costs. A successful TVE would require raw materials, machinery, technical expertise, and information about the market. The local government played an essential role to support TVEs to acquire these resources. Two questions naturally arose: Why was local government so proactive in developing TVEs? And
how was local government capable of doing that? In a local state corporatist system, township and village officials were the actual entrepreneurs and the benefits of a successful TVE sector would correspond with their own benefits (Oi 1995). Scholars have documented several ways in which the interests of local officials were integrated into TVE development. There were specific relations between local officials and other actors who owned resources.

Firstly, the promotion system in a local official’s personal career provides the incentive for local government to actively develop TVEs. The appointments of government officials have always been hierarchical in China. The heads of townships and village officials are appointed by county government and they report their work to county government. Appointments usually came with township and village development targets for GDP, employment, social welfare etc., set by county government. Whether a local official would get promotion depended on fulfilment of pre-set targets. In most cases, local officials would have to outperform what was expected substantially to win promotion. At the same time, county government officials would be promoted if the townships and villages they administered performed well. As agriculture provided little growth potential, TVEs became the primal vehicles to generate GDP, employment, and funds for social welfare. Therefore, TVE development was tied to local officials’ careers (Naughton 1996; Weitzman and Xu 1994; Wong 1988). Meanwhile, governments at different levels were interrelated by mutual benefits and dependence (Oi 1997).

Given such a hierarchical as well as interdependent system, flows of resources could be channelled through bureaucratic relations. During the reform era of the 1980s, although the political system was decentralised with substantial autonomy granted to local governments, higher levels of government still possessed much more resources than lower levels. Since townships and villages were seated at the lowest administrative level, there were not many
resources allocated for TVGs. Meanwhile, markets at that time were very incomplete (markets of assets and labour were absent for a long period) and parochial, so it was unlikely that all the necessary resources could be obtained from the markets. TVG officials had to go beyond the township and village boundaries to secure resources for TVEs. Based on common interests, TVG officials were able to utilise bureaucratic relations with county government officials so as to tap into resources that county governments were able to mobilise. County government could further represent local TVEs to appeal to prefectural, provincial or even central government for key resources (Weitzman and Xu 1994). The benefits gained from vertical relations with higher levels of government would be enhanced by horizontal relations among different government agencies and bureaus (Oi 1997). For example, the commission on science and technology would help TVEs find scarce technical personnel, the county tax bureau would help TVEs train accountants, and local banks would simplify the procedures for granting loans (Wong 1988). In general, local governments tend to be omnipresent in TVE development. At a time when the market and legal systems were not mature, the network of government administration became one of the most reliable means to coordinate economic activities (Pei 1997).

The degree of dependence of TVE development on higher level government would vary case by case. It tended to be determined by the capability of government officials in acquiring scarce resources through personal networks. The bureaucratic system would only lay the inter-organisational relations shaping such capability. Therefore, interpersonal relations (such as relatives, friends etc.) played an important role in mobilising resources for TVEs. Local government could be less dependent on higher level government when they possessed social capital that could effectively mobilise economic resources.
However, it is inappropriate to over-emphasise the role of administrative powers in securing resources for TVE development. Otherwise, it would have been higher level government which was more crucial for TVE development and county-owned enterprises would have been much more successful than TVEs in rural areas. The reality was that TVEs were far more dynamic than county owned enterprises during the 1980s (Bramall 2006). In some cases, TVEs could be so successful that county government would ask township and village level government for assistance (Oi 1997). This has led researchers to explore further what was specific about the territoriality of townships and villages, especially the social and cultural relations among local communities (Pei 1997).

It was the characteristics of interpersonal relations that made the localities of townships and villages distinctive. Township and village government often designated officials as managers of TVEs or granted TVE managers authoritative titles (Weitzman and Xu 1994). This created a dual identity of entrepreneur-official that allowed flexibility in mobilising resources across administrative and business systems. The second difference was that township and village officials had more substantial interpersonal connections (e.g. family, kinship, colleagues, and friendship) with local communities than officials above the township level (Pei 1997, p.112). The dual identity and local relations provided incentives for TVE development other than promotion. Local officials could directly increase personal income when TVEs generated more profits. At the same time, since TVEs were crucial to the incomes of local communities, pressures from relatives and friends could also directly stimulate local officials to actively develop TVEs (Feuchtwang 1997). These incentives were rooted in the specific territory and unlikely to transfer to other places, as those officials who were locally born were involved in a much denser network of relatives and friends. In their collective interests, TVE development would focus on the substantial benefits for local communities, rather than vanity.
projects. Local officials were able to take advantage of the social network of local elites to enhance their capability for sourcing external resources (Luo 1990).

Interpersonal relations within township or village were also the foundations of economic coordination in running a TVE. Interpersonal relations facilitated the formation of understanding and trust among local officials and residents. Mutual understanding and trust could reduce the cost of hiring and performance evaluation (like human resource management in modern firms). Because the differences between wages and social welfare received by local communities was often negligible, this encouraged the existence of free-riders who tended to work less hard (Gelb 1990). Based on the everyday interactions with local residents, TVE managers could easily select out and employ villagers who had good attitudes to work. Also, workers knew each other well and one would lose face if others knew he/she was not hard working (Feuchtwang 1997). Therefore, even though TVEs had very few managers, they could rely on interpersonal relations to supervise workers. Second, interpersonal relations could also ensure that most of the TVE profits were kept within local communities. In management of collective property, agency was a common problem which indicated the risk of TVE managers transferring benefits outside the local communities. However, if a TVE manager was corrupt, his/her family members might face moral pressure from other local residents. Therefore, the embeddedness in the local network could ensure a high degree of local loyalties. Further, as local workers trusted in local officials, they were more willing to accept a low salary so more profits could be re-invested to ensure long-term prosperity of TVEs (Pei 1997). In addition to local networks, external interpersonal relations would also play an important role in TVE development, especially in acquiring technical expertise. During the early reform era, most of the capable engineers and technicians worked
in the state sector and lived in cities. To make contact with and persuade these urban experts to work for TVEs would involve frequent visits and building of trust and friendship.

The combination of inter-organisational and interpersonal relations within township and village made local officials responsible and capable representatives of local benefits. The administrative identity of TVE managers and mutual understanding and trust had constituted specific assets for TVE development. Scholars have argued TVEs were effective institutional adaptations of very specific conditions during the early reform era (Naughton 1994). The nature of TVE sector’s creation of value was that it managed to make efficient use of acquired resources, by mobilising and arranging resources from various sources, as well as providing workers incentives to work efficiently. Again, this process of value creation depended on relations that internalised benefits within local areas.

Based on the analysis above, TVE economy could be disrupted in several ways. First, there could be changes in the specific conditions to which TVEs had adapted. Changes were rather certain to happen as central government was determined to deepen the reforms. Lin et al. (1998) have pointed out that as markets for assets and factors of production become more complete, the advantages of TVEs in administrative relations would fade. Second, the close relations among local government, TVEs, and local communities could be dismantled by institutional changes, such as privatisation. If these relations were changed, the specific assets for township and village development would diminish. In retrospect, scholars have identified a reverse trend in TVEs and rural development entering the 1990s (Bramall 2006; Huang 2008). Huang (2008, p.109) even used the phrase “a great reversal” to summarise his observations on rural income stagnation, reduction in rural enterprise investment, and anti-rural policies in the decade of the 1990s. From the late 1980s, central government rolled out a series of new reform policies that deeply reshaped urban-rural relations in China.
Deepening reform and rural-urban development

Unlike the conventional impressions that China’s reforms have been a linear, continuous, and incremental process, there was a great policy reversal towards reform around the late 1980s and early 1990s. Many scholars have claimed the 1980s and the 1990s were two very different periods. Huang (2008, p.112) commented, “Whereas Chinese Capitalism in the 1980s was a rags-to-riches capitalism, the capitalism in the 1990s led to sharp income inequality, a reduction of social opportunities to the rural population, slower income growth, and an investment-heavy growth pattern.”

The Tiananmen Square protests in 1989 marked a change of political attitude towards reforms (Huang 2008). Though economic reforms had achieved huge success during the 1980s, the reforms also caused a series of problems. During 1988 to 1989, the Chinese economy encountered severe inflation. The negative effects on urban residents were much greater than on rural residents because the former had to buy everything on the market while the latter could mostly be self-reliant for essential substances, such as grain and oil (Aaberge and Zhu 2001). Another serious problem was corruption of urban officials (White 1996). Because of the application of the dual track system, urban officials were able to benefit from arbitrage by buying commodities at low prices from the state track and selling them at high prices in the market track. Urban residents, especially intellectuals and students, had interpreted the roots of these problems as the concentration of power and the lack of democracy (Vogel 2011).

The tension between the government and urban residents started building as urban residents appealed for political reforms along with the tackling of inflation and corruption (Benewick 1995). Such tension eventually culminated in confrontations at Tiananmen Square when the
central government subdued the crowd by force without compromise on political reform. However, the Tiananmen incident made the central government determined to reflect on its pro-market policies and make readjustments that not only promoted the economy but also served political purposes (Vogel 2011). A reshuffle of the top party leadership followed the internal verdicts on who was responsible for the Tiananmen protests. The then Communist Party General Secretary, Zhao Ziyang, who had shown sympathies to protestors’ appeals, was purged from the top leadership. Zhao was one of the pioneers who had actively promoted market-oriented reforms, especially when he was in charge of the rural province, Sichuan. Zhao’s ‘Sichuan experience’ was appreciated by Deng Xiaoping who then appointed Zhao to lead nation-wide reform as a top central government official (Vogel 2011). After the Tiananmen incident, Zhao was succeeded by Jiang Zemin, a trained engineering cadre, who rose to political prominence in Shanghai, with no experience in administering rural areas. Other members of the post-1989 top leadership, the then Premier Li Peng and his successor Zhu Rongji, were all from an urban administration background and in favour of state-control approaches towards the economy (Huang 2008). Unsurprisingly, the new leadership retreated from their predecessors’ liberalist attitude towards reform and pushed reform forward with cautious concerns over socialist ideology.

* Tightening financial control*

On the economic side, the high inflation in the late 1980s had alarmed the central government with the over-expansion of credit creation and the shrinkage of central revenue (Naughton 1991). To deal with the problem of over-investing, central government imposed a series of policies that tightened financial control. Restrictions were gradually imposed on financial organisations outside the state bank system, such as funds, mutual assistance associations, savings associations, capital services departments, share capital service departments, fund
clearing centres, and investment companies (Huang 2008). The operations of these semi-official financial organisations were constrained from 1990 and completely banned in 1998. At the same time, state banks were instructed to substantially cut the amount of loans available to the private and TVE sectors. In the stereotypical view of technocratic officials, private firms and TVEs were rural-based, small-scale, low-tech, and therefore incapable of generating high returns for investment. The government would concentrate precious capital on investing in projects of strategic importance, usually located in urban areas. Meanwhile, the Rural Credit Cooperatives (RCCs), the primary credit source for rural enterprises, were directed to allocate the majority of lending to agriculture and reduce lending to manufacturing and services (Huang 2008). The imposition of credit control policies, combined with mandatory price control of consumer goods, successfully brought the inflation rate to a normal level. Nonetheless, the repression of non-state financial organisations was a long-term strategy rather than a short-term emergency measure. This has led to a great credit squeeze for rural enterprises (Huang 2008).

**Reframing central-local relations: recentralisation**

The problem of central revenue shortage was addressed by recentralisation measures that reframed central-local relations (Tsui and Wang 2004). In the early 1980s, the central government initiated fiscal decentralisation reform to grant more economic autonomy to local governments. A fiscal contracting system was implemented to substitute the unitary revenue and expenditure system. Such a contracting system, known as ‘eating from separate kitchens’ (*fenzhao chifan*25), committed the central government and the provinces to long-term and

25 分灶吃饭

106
fixed schemes of sharing fiscal revenues. As a result, local governments could claim the residual local output after submitting a fixed amount to central government. Many scholars have argued that the devolution of fiscal power had motivated local cadres to actively engage in local development and laid down one of the key institutional bases for reform (Williamson 1995; Oi 1992).

Scholars have also gathered evidence that has proved persistent *de facto* central control throughout the post-1989 era (Wong 1991). Central government was able to manipulate how local governments allocate resources through a highly hierarchical cadre management system (Huang 1995). Local cadres were subjected to the target responsibility system (*mubiao zerenzhi* 26), through which higher level government allocated development tasks to subordinate levels. The performance of local cadres was then evaluated, based on how well they completed the assigned tasks. Therefore, each level of local government had to fulfil targets from above, which were essentially different levels of decomposition of central targets. Such imperatives reduced the autonomy of local government in the allocation of local revenues and facilitated *de facto* central control (Tsui and Wang 2004). The negative effects of TRS were that local cadres were strongly motivated to prioritise those tasks that were measurable, visible, and to which upper level government attached heavy weight (Huang 1995). Consequently, there were always cases in which the interests of local government were not aligned with those of the local communities (Tsui and Wang 2004).

Second, central government did not refrain from grabbing local resources (Tsui and Wang 2004). The introduction of fiscal contracts was supposed to protect the autonomy of local

26 目标责任制
governments. However, there was no independent enforcement that could guarantee these contracts. The 1980s had already witnessed several runs of negotiations which redrew the division between local and central revenues. Since the end of 1980s, the Ministry of Finance had been experimenting with the tax sharing system (fenshuizhi\textsuperscript{27}) to replace the fiscal contracts system. The tax sharing system was implemented nationwide in 1994, reallocating 75 per cent of the new value-added tax and 100 per cent of the consumption tax to central government (Wong 2000). Among different levels of local government, the tax sharing system also redirected a much larger share of revenues to higher levels of government, like the provincial and prefectural levels, devastating the fiscal power of county and township governments (Tsui and Wang 2004).

\textit{Industrial policy: balancing plans and markets}

The reshuffle of the top leadership, as well as reinforcing central control, was a major setback for Deng Xiaoping’s market-oriented reform agenda. Actually, the members of the top party leadership had never reached consensus over Deng’s reform agenda. The opposition side, led by Chen Yun, Li Peng, and Yao Yilin, had always worried that capitalist development would undermine the throne of the Communist Party (Zhao 1993). They insisted that it was best to make improvements within a planned economy system in order to avoid economic overheating and corruption. The Tiananmen incident had become a great bargain chip for the opposition side. Moreover, the dissolution of the Soviet Union in 1991 had a huge impact on top party leaders. It was believed that Gorbachov’s pro-market and pro-democracy reforms had weakened the authority of the Communist Party and had eventually led to the dissolution

\textsuperscript{27} 分税制
of the Soviet Union. Around the years from 1989 to 1991, the opposition side had regained its dominance within the top party leadership. They had been actively preparing political and economic plans, determined to roll back market-oriented reform policies (Vogel 2011). In early 1992, Deng Xiaoping, who had already retired, but remained a backbone for reformist cadres, made the famous ‘southern tour’ (nanxun\textsuperscript{28}) to Shanghai and Guangdong to win support from provincial leaders. Through internal battles, Deng managed to re-control the thoughts of the top party leadership and put forward the concept of the ‘socialist market economy’ at the 14th National Congress of the CPC in October of 1992 (Zhao 1993). Though the reformists had won this battle, the opposition side persisted as a strong force within the top party leadership. Deng and his allies had also learnt from the lessons of the Tiananmen incident and the dissolution of the Soviet Union that the party leadership should remain supreme. Deng’s new reform agenda – the socialist market economy (shehuizhuyi shichangjingji\textsuperscript{29}) – was the result of balancing market-oriented reforms and socialist ideology (Zhao 1993). The Chinese government was challenged to use markets as a tool while maintaining the absolute authority of the party leadership.

In the search for a politically compatible approach towards the market economy, the industrial policy agenda started to gain popularity within the top party leadership in the 1990s (Heilmann and Shih 2013; Huang 2008). China’s interest in the industrial policy agenda was inspired by the industrial success of neighbouring countries, especially Japan. Since the early 1980s, China’s economic bureaus had organised a series of research projects on Japan’s industrial development experience and its governing body – the Ministry of International

\begin{flushleft}
\textsuperscript{28}南巡
\textsuperscript{29}社会主义市场经济
\end{flushleft}
Trade and Industry (MITI). At the same time, there were frequent exchange programmes between senior Chinese and Japanese officials and economists. Among Chinese policy circles, the Japanese industrial policies agenda was claimed to be “oriented towards strengthening competitiveness of large private firms in targeted sectors, first on domestic, then on global markets through government-sponsored incentive programs, while avoiding direct intervention into firm decisions” (Heilmann and Shih 2013, p.2). Therefore, the industrial policy approach was supposed to integrate an indispensable role of government guidance into market competitions, which was both economically effective and politically acceptable in the post-Tiananmen situation. From the early 1990s, top officials gradually established an industrial policy approach as the operational vehicle for the ‘socialist market economy’. Imperative economic planning was replaced by indirect indicative guidance and sector-specific programs, featuring administrative inducement measures such as tax and credit incentives and various preferential policies (Heilmann 2008).

Adapting from the Japanese experience, the Chinese government also sought to strengthen the competitiveness of large enterprises – not large private enterprises but large SOEs (Nolan 2001). Since the early 1990s, the deepening reforms in the SOE sector had been ‘grasping the large and letting go of the small’ (zhuada fangxiao). ‘Grasping the large’ refers to the government retaining the ownership of large-sized SOEs, while ‘letting go of the small’ refers to the bankruptcy and selling off of small-sized, loss making SOEs to private owners. The money from selling small SOEs financed the expansion of large SOEs, which were usually in monopolistic sectors and protected from competition (Huang 2008).

30 抓大放小
Another top-down development strategy was the embracing of foreign direct investment (FDI) (Huang 2003). Central government’s perception of FDI was, again, highly influenced by neighbouring countries. However, the idea of making use of FDI was ideologically opposite to socialism. It was impossible to open the whole nation to the world market. Therefore, it had to be a gradual process to introduce FDI into China’s economy (Qian 2002). In the early 1980s, four coastal cities (Shenzhen, Zhuhai, Shantou, and Xiamen) were established as special economic zones (SEZs) where foreign investments were allowed. In the mid-1980s, a dozen coastal cities were allowed to set up economic development zones (EDZs), which functioned as SEZs, only on a smaller scale. SEZs had only modest success during the 1980s. SEZ policies oscillated wildly as the tensions between reformists and conservatives evolved (Zhao 1993). The conservative party leaders had nearly abolished SEZs after the Tiananmen incident. Deng’s southern tour made specific stops at two SEZs (Shenzhen and Zhuhai) and Deng reportedly praised local officials for the economic achievements of SEZs (Zhao 1993). The continued development of SEZs (and EDZs) not only functioned as a symbolic signal of carrying on reform, but also served as the crucial carriers of industrial policies (Tseng and Zebregs 2003). Since the economic recentralization had limited the scope of indigenous investment, there was a pressing need to channel new sources of investments. To attract FDI became the target of the renewed reform endeavours (Huang 2003). Because of the financial recentralisation, the state was able to gather a huge amount of capital for the construction of SEZs and EDZs in order to satisfy the needs of foreign investors. The inflows of FDI were supposed to bring in capital, as well as new technology, new modes of management and new thinking. Therefore, FDI was generally more favoured than indigenous investment. It was
after the early 1990s that China’s FDI growth started to pick up speed and eventually became a key driver of China’s economic growth (Tseng and Zebregs 2003; Fung et al. 2004).

The idea of ‘special zones’ (i.e. SEZs and EDZs) reflected the gradual and eclectic mentality of Chinese reformists. At the beginning, special zones were crucial to overcome the ideological barriers to market-oriented reform. When the ideological issue diminished, special zones or experimental localities (shidian\textsuperscript{31}) continued to serve as testing fields of centrally initiated new practices (Heilmann 2008). Special zones were also encouraged to take local initiatives to experiment with new practices. They could sometimes break the current policy frameworks with substantial tolerance from above. Such an experimental approach towards reform was dubbed ‘crossing the river by fumbling the stones underwater’ (Nolan 1994). The problem was that those pioneers were trying to exclude ‘followers’ from crossing the river. They tended to either hide the crossing paths or monopolise the preferential resources to maximise the benefits. Such a tendency was to undermine the virtues of experiments as a test of practices which were intended to be generalised. The danger was that the success of experiments essentially depended on the preferential experimental conditions (Nolan 1994).

\textit{The downfall of TVEs in the post-1989 era}

Though TVEs had achieved rapid economic growth during the 1980s, they failed to convince the conservative party officials about the benefits of market-oriented reform. Furthermore, they became the target of the opposition side’s attack on reform. The then premier, Li Peng, made the following remarks shortly after the Tiananmen incident:

\begin{flushright}
\textit{\ldots}\end{flushright}

\textsuperscript{31} 试点
We disagree with the inappropriate exaggeration by Comrade Zhao Ziyang on the role of TVEs and with his policy of introducing some unhealthy TVE practices into the large and medium SOEs. But we do not deny the importance of TVEs. The main challenge facing the TVEs is how to utilise raw materials and inputs in their local rural areas. The markets for TVEs, except for a few TVEs aimed at the cities, should be primarily in the rural areas, providing for agricultural production and the daily commodities needed by the peasants.

– Premier Li Peng, October 11, 1989 (Li 1989)

The opposition side’s idea regarding TVEs was to restrict the operations of TVEs to rural areas, maintaining urban-rural dualistic markets. As the reform strategy after the Tiananmen incident had undergone thorough restructuring, the development of TVEs stumbled thereafter. Many scholars have identified the downfall of the TVE sector in the 1990s based on statistical observation of key indicators such as output share, employment creation, and investment (Park and Shen 2003; Kung and Lin 2007). There have been several contesting explanations for the downfall of TVEs. Some scholars argued it was the lack of competitiveness of TVEs in the increasingly mature market (Li 2003). The SOE sector had boosted its productivity and foreign firms were allowed to enter China’s market following deepening reforms. The intensified market competition had squeezed out the TVE sector. At the same time, collective ownership became problematic in TVE management (Luo et al. 1998). TVE managers lacked autonomy in making firm strategies, especially on investment decisions to promote individual enterprises. It worked when the government had trust in TVE managers and supported their decisions on running a firm. Without this, government intervention often proved contradictory to business logic (Kung and Lin 2007).
However, some scholars have identified flaws in such explanations for the TVE sector’s downfall. First, what TVEs produced were mostly consumer goods in light industry that were complementary to the state sector and foreign firms, rather than in competition with them. Many of these light industry products were labour intensive, so it was the TVE sector that had the competitive advantage, even in a maturing market (Naughton 1994). Second, the problem of collective ownership in business management was not something new in the 1990s. It had always existed since the birth of TVEs, but it had performed well in the 1980s. An abrupt dysfunction was not possible if the change in market competition were only gradual.

The point is that the change in the macroeconomic environment for TVEs was not gradual. The post-1989 restructuring generated a great reversal of fortune for TVEs. The tightening of bank credit and financial recentralisation had a devastating effect on the financial environments of TVEs. Central government’s new initiatives for SOE development and attraction of FDI had drawn the majority of resources. A growing trend since the 1990s was the massive rural-to-urban migration, which reflected the inequality created by urban-centred strategies. Not only did the external conditions worsen for TVEs, but the internal mechanism based on local state corporatism was also dismantled. In the 1990s, the central government laid out various measures to consolidate party control over rural areas. Central government started to designate higher level cadres to supervise local cadres in townships and villages and appointed non-locally born cadres to township and village party secretary posts (Huang 2008). These outsiders had no horizontal relations with local communities. Therefore, they accounted to higher levels of government rather than local communities.
Staggering towards balanced urban-rural relations

The re-centralisation of administrative power and the re-engineered development strategies had successfully rebooted China’s economy after the glitch of the early 1990s and achieved a high growth rate throughout the 1990s (Huang 2003). However, the new economic strategies had a very strong urban bias and caused devastating effects in rural areas, which was best captured by the term ‘three rural crises’ – the crisis of agriculture, village, and peasantry (san nong weiji: nongye, nongcun, nongmin32) (Huang 2008). The term ‘three rural crises’ was brought into public discussion by a rural cadre’s open letter to the then premier, Zhu Rongji, in the year 2000. Nevertheless, it did not enter the policy agenda of the central government until the advent of the new generation of central leadership under President Hu Jintao and Premier Wen Jiabao – the Hu-Wen administration (Naughton 2005).

Central policies to support rural areas

The Hu-Wen administration announced a brand new concept for socio-economic development shortly after its appointment in 2003 – the harmonious society (hexie shehui33). As an attempt to distinguish from the previous ideology, ‘putting economic growth first’, the harmonious society concept explicitly emphasised the coordinated development of urban and rural areas and ‘putting people first’ (Fan 2006). For five consecutive years, from 1982 to 1986, central government had published the “No. 1 Document” (zhongyang yihao wenjian34), which approved a series of key reform policies in rural areas, including the most acclaimed

32 三农危机：农业，农村，农民
33 和谐社会
34 中央一号文件
household responsibility system and TVE promotion policies. Therefore, the central government’s “No.1 document” had been historically institutionalised as macro-policies on improving rural conditions. In 2004, the new central government published the first “No. 1 Document” since 1986. After almost twenty years’ absence, it was both symbolically and concretely significant to publish a rural centred “No. 1 document” again (Gale et al. 2005). The 2004 No. 1 Document was themed on raising income and improving social welfare for rural population, which was sequentially implemented and showed the new central leadership’s more egalitarian attitude.

The preferential rural policies can be categorised as targeting four fields. First, there was substantial support for farmers and the agricultural sector. Central government initiated the rural tax reform which phased out the agriculture tax (eight percent of a farmer’s agricultural output) (Kennedy 2007). This was a major relief of the tax burden on farmers. At the same time, a series of other taxes and fees, such as those used to fund village administration expenses and road construction, were terminated. Despite tax reductions, there were also direct subsidies paid to farmers based on the acreage of their contracted arable land. Farmers were also able to purchase agricultural inputs, such seeds and machinery, at subsidised prices. The grain market was liberalised which, with the response of rising grain prices and government procurement prices, followed market trends (Gale et al. 2005). Second, central government injected a substantial stream of investment into rural areas, especially in infrastructure, the health care system, and education (Naughton 2011). Rural infrastructure projects that received financial aid included irrigation facilities, rural roads, methane production facilities, rural hydroelectric plants, pasture enclosures, research, and construction of agricultural high technology parks. Since 2004, a rudimentary cooperative health insurance
scheme has been gradually constructed and budgetary support for universal elementary education has been substantially increased (Liu 2004; Mok 2005).

Third, both central and local governments initiated a series of policies to improve the conditions of rural migrants (Gallagher 2005). In rural areas, the governments started programmes to provide job information as well as train rural migrants to protect their legal rights. In host cities, the notorious repatriation system, of which rural migrants had been the major victims, was terminated. Central government also urged local government to effectively implement the minimum wage system and intervened in salary arrears cases to guarantee that rural migrant workers were properly paid (Du and Pan 2009). Fourth, central government emphasised the need to protect rural residents’ land rights and restricted land use conversion from rural activities to urban construction (Gallagher 2005). As urban government was unable to provide rural migrants with adequate social welfare, rural residents’ land ownership had functioned as a social cushion if migrants lost their jobs in the cities. Therefore, rural land protection was essential to control the potential social instability of rural migration (He et al. 2009). The acute shrinkage of arable land during the 1990s also alerted the government to the danger of food crisis, which provided another rationale for rural land protection (Lichtenberg and Ding 2008). Fifth, the spatial development of rural areas was integrated into the statutory planning system. The new urban-rural planning system was supposed to coordinate land use conflicts caused by urban expansion, facilitate large scale transport infrastructure that would strengthen urban-rural linkage, and estimate the adequate quantity of housing and public infrastructure in accordance to urbanisation trends (Qian and Wong 2012).
Despite the emphasis on social equality, the Hu-Wen administration also made efforts to adopt a more sustainable development strategy by progressively promoting the rhetoric of the ‘scientific development viewpoint’ (SDV, *kexue fazhanguan*35). According to the official explanation, SDV was to promote coordinated development in five key aspects: urban-rural integration, narrowing regional disparity, balancing GDP growth and social welfare improvement, coordinating human activities and environmental capacity, and coordinating endogenous and exogenous development. As the guiding ethos, SDV reconceptualised the nature of development within the policy making arena and marked a departure from the previous rhetoric of ‘putting economic growth first’. Centred on SDV, the 11th Five Year Plan (FYP), the first FYP under the Hu-Wen administration, represented revolutionary change in the governance of China’s economy (Fan 2006; Naughton 2005).

The 11th FYP had gone through a rather inclusive consultative process. Central government had spread the network of consultation widely with the establishment of a 37 member ‘Expert Commission’, which included a number of highly influential and independent pro-market and pro-reform economists such as Wu Jinglian, Lin Yifu, and Hu Angang (Naughton 2005). Think tanks gained more weight in policy making, though most of them were funded by the government (Wang 2008). At the same time, the form of the word ‘plan’ in the FYP changed from *jihua*36 (involving more imperative, quantitative, and short-term commands and targets)
to *guihua*\(^{37}\) (involving more indicative, strategic, and long-term guidelines). In these ways, central government was sending local policy makers the messages that they should follow the central guidance while working out specific local and regional solutions through consultation with specialists (Naughton 2005).

The 11\(^{th}\) FYP put forward development strategies based on endogenous factors rather than exogenous ones. Such endogenous strategies included two related components: industrial upgrading and technological innovation. As the 11\(^{th}\) FYP pointed out, the current industrial development had depended greatly on foreign brands, product design, and production technology. This had placed China’s industry in a disadvantageous position in terms of the global division of labour, with foreign companies slicing away the major share of profits. Therefore, there was the need to build indigenous brands (*zizhu pingpai*\(^{38}\)) and promote indigenous innovation (*zizhu chuangxin*\(^{39}\)). As a complementary document to the 11\(^{th}\) FYP, the central government published the Medium and Long Term Development Plan (MLP) for Science and Technology Development (2006-2020). MLP articulated a systematic approach towards building a national innovation system, with special focus on ‘strategic emerging sectors’ such as information technology, biological technology, new materials and space technology.

The 11\(^{th}\) FYP initiated an agenda for administration reform, with a focus on reducing direct government intervention in the market economy. Highlighting the new role of governments

\(^{37}\) 规划

\(^{38}\) 自主品牌

\(^{39}\) 自主创新
as service providers (fuwuxing zhengfu⁴⁰), central government emphasised the need to redraw the boundaries of governmental intervention, to separate government from enterprises, and to streamline administrative procedures. Central government also encouraged provincial government to experiment with the ‘province administrating county’ system (sheng guan xian⁴¹) to grant county level units more autonomy in local development. Another major initiative was to restrict administrative protectionism in order to construct integrated national markets for products and factors.

The 11th FYP put forward the idea of ‘healthy urbanisation’ as a response to the wasteful expansion of urban land use. The FYP proclaimed a balanced pattern of urbanisation which strengthened the role of small cities and towns in absorbing rural population. It also identified urban agglomeration as the spatial entity with respect to urbanisation and encouraged integrated planning of the urban system on a regional scale. Within an urban agglomeration, cities and towns of all sizes were supposed to be tightly knit together with complementary functions. Beijing-Tianjin-Hebei, the Yangtze River Delta, and the Pearl River Delta were recognised as three relatively mature urban agglomerations in China and were supposed to facilitate further concentration of population.

**Shift and continuity: the new state activism**

Through the 11th FYP and other complementary policies, the Hu-Wen administration had constructed a coherent policy agenda centred on coordinated development and recognised human resources and technology as the key drivers of the economy. This new agenda

---

⁴⁰ 服务型政府

⁴¹ 省管县
corresponded to the fruits of the latest thinking on development, drawing substantially from the experiences of advanced economies in the western world. Although the Hu-Wen administration had shown their sophisticated understanding of the modern economic system, such a new orientation needed more concrete actions to generate a positive impact. In retrospect, the Hu-Wen administration failed to turn these ideal scenarios into reality during its decade long tenure. Though adjustments were made, the development strategy under the Hu-Wen Administration was largely inherited from the 1990s, especially the pro-investment and pro-growth policies (Naughton 2011). As a result, the state continued to play the central role in economic development. The dominant role of the state was further reinforced by the allegedly successful response to the global financial crisis (GFC) around 2007 and 2008. The Chinese government had publicly claimed its self-confidence in the rightness of ‘China’s path’, which featured strong government intervention. As Premier Wen Jiabao stated in his 2010 Government Work Report:

We must continue to make use of both market mechanisms and … the advantages of the socialist system, which are efficient decision-making, a powerful organisation, and the ability to concentrate resources on accomplishing big things.

During the Hu-Wen administration, the emphasis on economic and political stability during the reform process became evident (Gallagher 2005). The economy should maintain steady and rapid growth and the party leadership should also be stable. ‘Stability over everything’ (wending yadao yiqie42) was firstly formulated by Deng Xiaoping during the 1980s in order to reduce ideological debate and push forward the reform agenda. A basic judgment by Deng

42 稳定压倒一切
Xiaoping was that the people’s dissatisfaction over low living standards could be easily turned into objections against the party leadership. The only way out was to liberalise and revitalise the economy through reform and raise the people’s living standards. The 1989 Tiananmen incident marked another major manipulation of the ‘stability’ principle by affirming the absolute prominence of the party leadership in the reform process. As we shall see from the previous analysis of development strategies in the 1990s, the state regained the dominant role in economic governance (Huang 2008). The resurgence of the ‘stability’ discourse under the Hu-Wen administration was a response to the social unrest caused by inequalities, especially those between rural and urban areas. Therefore, central government’s redistributive measures could rather be seen as an emergency response to the threats to stability than a systematic revision of organisational and institutional dualism. At the same time, scholars have pointed out that the expansion of government expenditure on social welfare was accompanied by “a conscious effort to remove that sector of the economy from the sway of the market” (Naughton 2011, p.323). Although sectors such as health care and education required a certain degree of government intervention even in the most developed market economies, the Chinese government’s exclusion of private participation was seen more as a barrier to efficiency than as a responsible reaction to market failure.

The efforts to consolidate the state’s role could also be seen from the ongoing reform of the SOE sector. The Hu-Wen administration was determined to put a halt to the downsizing trend in the state sector. A new government agency, the State Asset Supervision and Administration Commission (SASAC), was created to hold ownership authority over large central level SOEs. SASAC was independent of the government administrative apparatus and behaved like a shareholder who was tasked with increasing the value of SOE assets. On the one hand, SASAC fostered effective SOE reform through corporate governance reform; on
the other hand, SASAC forged an integrated system of central level SOEs in different sectors, through which the state could exercise its powers in a wide range of economic fields. Such an integrated system played a vital role in facilitating China’s mega stimulus policies in response to the global financial crisis in 2007 and 2008. SOEs were able to scale up their investment and enter into new sectors. A lively discussion emerged in China about ‘the advance of the state and retreat of the private’ (guojin mintui⁴³). Notably, the private sector continued to grow and there were by no means signs of the state sector overshadowing the private sector. Moreover, the Chinese government affirmed officially the importance and legitimacy of the private sector and the market economy by re-issuing the “36 Articles on Private Sector Development”. Nevertheless, the state sector had tilted toward a growing prominence and became the main carrier of national development strategies.

With respect to the new orientation towards economic restructuring, the state also existed as a dominant player in such a restructuring process. The Chinese government published a document which specified seven industrial sectors as the ‘strategic emerging industries’, namely clean technology, new generation internet and communication, biology, advanced equipment manufacturing, new energy, new materials, and electric cars. These sectors receive substantial stimulus spending. At the same time, the 2006 Medium and Long Term Plan designated 16 state-sponsored research projects closely related to ‘core technology’ in industrial development, for example, the high end system on chip (SOC) and software, ultra-large scale integrated circuit manufacturing, new generation broadband mobile telecommunication, advanced computer numerical control machines (CNC), new medicine, large scale civilian jetliners, etc. Each of these projects has a supervisory commission in the

⁴³ 国进民退
central government, and a high level political patron as well. Further, the ‘indigenous innovation’ promotion policies were implemented more forcefully, including the use of procurement preferences for products that have been certified as containing ‘indigenous innovative’ content, patent rules that require disclosure of foreign technologies, and implicit conditioning of investment and product approvals on technology transfer.

This new state activism under the Hu-Wen administration certainly came at a crucial stage of social and economic development. When development is more about quality rather than quantity, it is always more difficult. What the Hu-Wen administration was trying to achieve in its ‘revolutionary’ policy agenda were very difficult tasks without clear solutions even in the most advanced economies. For example, in the case of developing strategic emerging industries, key sectors in China’s list are almost the same as those in the lists of the U.S. or European countries. Every country is investing in these strategic emerging industries in the hope of taking a dominant position in the future. However, no country exactly knows the real market size of these industries. Inevitably, the chances of failure are high. While the bursting of a market bubble often functions as an exit mechanism for overheated investment in the market economy, it is unclear how the state will be able to terminate underperforming projects and companies. Since the state has subsidised these sectors so much, the entrenched interest groups and politicisation of economic decision-making have made it difficult to either reduce the subsidies or to open the sectors up to private competitors.

**Conclusions: challenges to urban-rural integration**

This chapter has argued that China’s economy is structured on deep rooted state intervention and urban-rural dualism. At the same time, institutional reforms in such structure have an essential role in the transition processes of China’s urban-rural development. While China is
still pushing forward for deepening institutional reform, we have to be cautious about the institutional reforms as the primary dynamics for the economic development. For these economic successes brought by institutional reforms, we have to be aware of the distinctions between two types of institutional change: those which formalise or legalise certain desired activities – termed as ‘permission type’, and those which aim to promote certain desired activities but can only provide necessary, rather than sufficient, conditions – termed as ‘promotion type’.

For desired activities with the ‘permission type’ institutional changes, the incentives and capacities to carry out these activities are already present. The problem is that these activities are suppressed by regulations; therefore, once these constraints are lifted, the activities will roll out quickly and achieve the success expected. Examples include the improvement in agricultural productivity following the household responsibility system, and the development of the TVE sector after restoration of the market and rural industrial activities. For ‘promotion type’, the rationale for institutional change is to provide incentives and the necessary conditions for the desired activities. The uncertainty is that the capacity to carry out these desired activities could be difficult to acquire. Therefore, such institutional change is subject to a greater possibility of failure to bring about the expected results. An example is the latest policy campaigns on technological innovation. As the capacity for technological innovation is difficult to acquire, those policy campaigns have not been rewarded with substantial successes (Liu et al. 2011).

Arguably, China has entered the stage where the functions of policies are more about promotion rather than permission. Though institutional reforms could be the major development dynamics for certain development stages, they may lose momentum as they aim for complex tasks like technological innovation, especially when the actors do not possess
adequate related capacities. Therefore, the challenges for urban-rural development are not only about the institutional barriers of urban-rural dualism, but also the problems of acquiring new knowledge and skills in development.
Chapter 4 Conceptual Framework and Research Methodology

This chapter constructs a conceptual framework so as to anchor the research aim and objectives to systematic lines of empirical enquiry. Drawing upon the discussions on territorial and regional development in chapters 2 and 3 (Bathelt and Glückler 2003; 2005; Lundvall and Johnson 1994), the conceptual framework of this research centres on how territorial learning and problem solving processes drive urban-rural development by integrating the knowledge system, organisational system, and territorial system.

Following the development of a conceptual framework, this chapter devises a methodological design, which will define the reasoning pattern that connects theoretical foundation, empirical evidence, and research findings. This research also takes a comparative case studies strategy, which not only accommodates territorially specific details, but also proposes common issues across and beyond specific cases (Ward 2010). The rationale for case study selection and the basic information on data collection and analysis are also reported in this chapter.

The Construction and Application of the Conceptual Framework

This research examines the functions and dynamics of economic linkage through a theoretically constructed Territorial Economic System (TES).
The conceptual framework

Drawing upon the ideas in the concluding discussion of the literature review chapter, the conceptual framework for this research has to accommodate some major principles listed below:

- Industrial activities as the focus of economic activities;
- Development as capacity building: process oriented rather than result oriented;
- Problem solving and learning as the development dynamic;
- The interactions between human actors as the basis of economic linkages;
- The inclusion of different types of actors: firms, government, and intermediate organisations; and
- The territorial specificities of economic development.

Based on the above principles, this research adopts the concept of ‘learning’ as the guiding metaphor of TES and proposes a conceptual framework of Learning-based TES, referring to the nature of the learning economy stated by Storper (1997, p.31):

Those firms, sectors, regions, and nations which can learn fast or better (achieving higher quality or cheaper price for a given quality) become competitive because their knowledge is scarce and therefore cannot be immediately imitated by new entrants or transferred, via codified or formal channels, to competitor firms, regions, or nations. ... Learning-based activities are not immune to relocation or substitution by competitors. Once they are imitated or their outputs standardized, then there are downward wage and employment pressures. Firms or territorial economies must therefore be equipped
to keep outrunning the powerful forces of imitation in the world economy. They must become moving targets by continuing to learn.

The conceptual framework of Learning-based TES consists of three components: the knowledge system, the organisational system, and the territorial system (see Figure 4.1). The knowledge system postulates that problem solving activities are the dynamics of economic development. Problem solving activities contain not only cognitive ones (such as the interpretation of information, combination of knowledge, identification of problems, and formulation of solutions), but also practical ones (such as knowledge sourcing and implementation of solutions). The organisational system specifies the involvement of different types of economic actors, namely firms, governments and intermediate organisations. More importantly, it reveals the intra- and inter-organisational relations formed in problem solving processes. The territorial system is also a functional component of a learning based economic system. It contains the geographical elements that support effective interactions in learning, such as proximity and external connection. It also indicates the territorially specific factors that make defining contributions to, and have important feedback effects on, the knowledge system and the organisational system (Storper 1997).
Learning based development as problem-solving

Development is a process of change. The way real economy develops in real time is seen as a process where new technologies, new products, new firms, new industries, and new organisations replace old ones. Thus, development is also seen as an evolutionary process, with its focus on the mechanisms by which “the economy self-transforms itself from within” (Boschma and Martin 2007, p.1). Borrowing metaphors from Darwinian evolutionary theories in biology, economies evolve when they compete or encounter major external changes. Both competition and unexpected impacts create the pressure for novelty (such as new technology and new products), whether it is to consolidate competitive advantage or to
adapt to a new environment. It is therefore important to identify the dynamics and mechanisms of how economic actors approach novelty. In this respect, the Learning-based TES is about how the ‘learning’ mechanism functions towards the creation of novelty in territorial development. Learning is the fundamental activities that create new knowledge to serve certain needs. More explicitly, this research aims to find out how ‘learning’ as an ensemble of activities is organised with respect to problem solving. The economy progresses as reflexive actors reflect upon their competitive situations and seek solutions to the problems.

The metaphor of problem solving, most famously formulated by the philosopher Karl R. Popper, has been substantially applied to explain the processes of scientific discoveries as well as economic development (Popper 1999). Problem solving provides a model of meta-processes underpinning the evolutionary nature of regional development (Boschma and Martin 2007). This research proposes a formula of problem solving consisting of three major steps: problem awareness, problem construction, and solution testing (see Figure 4.2).
Problem awareness

Problem awareness concerns how actors realise that there is or might be a problem for them to solve. A problem can be easily evident when sudden shocks are imposed upon the actors. However, in most cases, a problem would be less obvious. Moreover, it is rather important to identify a problem in a precautionary sense before it causes any damage. Therefore, the awareness of a problem often comes from intentional problem seeking activities, such as monitoring and reflecting upon current actions and situations regularly. Here, we define the problems identified in this initial awareness step as ‘general problems’. Typical general problems include current actions failing to bring about the expected result, i.e. the ‘ineffectiveness’ problem, and current actions no longer being possible, i.e. the ‘constraint’ problem. For example, a government may realise that there is a problem with their policy if there is a drop in GDP or employment level statistics, and a firm may be alerted to a problem if its products are difficult to sell.

Problem construction

Problem construction concerns how a general problem is processed into a ‘constructed problem’. A general problem is not ready for drawing out solutions as it might involve too many factors and it is not possible to test out all of them. Therefore, to find a solution for a problem essentially depends on how the problem is properly simplified. In other words, a problem is something constructed upon knowledge. As suggested by Popper, a constructed problem is usually built upon a theory (or conceptual model) serving as a verisimilitude of the reality, no matter whether it is to deal with a problem of nature or human society. In this research, such a theory or conceptual model is termed a ‘meta-model’. A general problem can be conceived of as a possible breakdown in the operation of the meta-model. As a result, a
constructed problem will inherently contain ‘tentative solutions’ that are articulated through the theoretical rationale of the meta-model. In this sense, the quality of a constructed problem would essentially depend on the quality of the meta-model in use.

**Solution testing**

Solution testing concerns the implementation of solutions derived from the rationale underlying the constructed problem. For an individual, a decision is made according to one’s own perception of the situation, which is a function of information available and one’s computational capacities. The actor can search for more information and build up better computational capacities in order to improve his or her decision making. However, the high cost of searching and other constraints will push the actor to adopt a practical solution for testing.

When implemented and tested in the real world, these solutions are subject to trial and error. As a result, solution testing tends to incur new problems, which could either be represented through the current meta-model or require a modified version. Problem solving is therefore a recursive process involving repeated and constant fluxes and cycles of problem awareness, construction and solution testing. In terms of knowledge dynamics, this trial and error feedback is the central mechanism for the accumulation of practical and situational knowledge.

As development is a problem solving process, the three components in the conceptual framework – the knowledge system, the organisational system, and the territorial system – are three functional systems that drive and support learning-based development.
The knowledge system

The knowledge system is the domain where actors generate and utilise knowledge to accomplish any task in problem solving. From a functional perspective, the content of knowledge can be categorised into four types: know-what, know-why, know-who (when and where), and know-how (see Table 4.1) (Lundvall and Johnson 1994).

Table 4.1 Types of Knowledge

<table>
<thead>
<tr>
<th>Types of Knowledge</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know-what</td>
<td>Facts and information</td>
</tr>
<tr>
<td>Know-why</td>
<td>Scientific knowledge of principles and laws of motion in nature, in the human mind and in society</td>
</tr>
<tr>
<td>Know-who (when and where)</td>
<td>Knowing who knows what and can do what; knowing when and where there are good chances for fulfilling certain purposes</td>
</tr>
<tr>
<td>Know-how</td>
<td>Skills and the capability to accomplish a specific task on a practical level</td>
</tr>
</tbody>
</table>

Source: adapted from Lundvall and Johnson (1994)

From a transactional perspective, scholars have identified a key distinctive property of different types of knowledge: that is, whether the knowledge is explicit knowledge or tacit knowledge. Know-what and know-why types of knowledge are considered as explicit because they can be codified, reproduced, and transmitted easily in physical or digital formats such as books, files, or data bases etc. In contrast, know-who and know-how types of knowledge are tacit as they tend to be context specific, dependent on social relations and, therefore, difficult to codify, reproduce, and transfer. Therefore, human actors would be the only carriers of tacit knowledge.

Problem solving is essentially knowledge intensive. Different phases of problem solving may demand specific types and contents of knowledge (see Figure 4.3). For example, problem awareness would centre on know-what knowledge as it involves observational facts while
monitoring economic performance; problem construction would demand know-what, know-why, and know-how types of knowledge on possible meta-models; and solution testing would especially depend upon know-who (where and when) and know-how types of knowledge that work at a practical level.

Figure 4.3 Types of knowledge in the different steps of problem solving

Source: By author

The key question, then, is: how is new knowledge generated? Studies in learning regions have argued that new knowledge comes from the combination of existing knowledge. However, these studies are not very clear about the ways in which existing knowledge should be combined. In this respect, problem solving would also bear key processes that generate knowledge. The meta-model, the basis of a constructed problem, is the carrier of knowledge combination as it evolves both conjectures and reasoning that would make tentative connections between existing knowledge. These connections, once proved effective in practice, would then be accepted as new knowledge. As meta-models are specific to problems, knowledge will also have a context. Therefore, a constructed problem would set up the
‘problem context’ that gives meaning to new knowledge. Without a problem context, knowledge cannot be fully understood.

From an actor’s perspective, the actor in a certain problem context possesses both old knowledge and new knowledge. Old knowledge is the knowledge that the actor already possesses before the problem context is ever created – termed background knowledge. Background knowledge is accumulated through previous problem solving. As for new knowledge, the novelty of knowledge is relative to the actor’s old knowledge, rather than in the sense of originality. On the one hand, there is new knowledge that is external to the actor’s problem context. Such knowledge is generally know-what and know-why types of knowledge which would be used as materials for constructing a meta-model – termed external knowledge. On the other hand, there is new knowledge generated internally through the actor’s problem context. Such knowledge comes from applying, refining and testing the meta-model specific to the problem context. Therefore, it involves more practical content of know-who and know-how types of knowledge – termed internal knowledge. In other words, internal knowledge is created through the so-called learning-by-using and learning-by-doing processes.

The knowledge dynamics described above suggest that there might be tensions between old knowledge and new knowledge. New knowledge will challenge and replace some of the old knowledge. However, new knowledge, to a certain extent, is actually evolved from old knowledge. The background knowledge would set up the vision of potential external knowledge required in a new problem context. Such knowledge vision, also discussed by Nonaka et al. (2000, p.12), gives a direction to knowledge sourcing and defines the ‘value system that evaluates, justifies and determines the quality of knowledge’. External knowledge is then processed through meta-model construction in combination with some background
knowledge. Therefore, internal knowledge would also have a trace in background knowledge. The effects of knowledge vision are more or less subject to the dispositions of the actors. In this light, the rationality of actors has a crucial role to play. Rationality indicates what a rational actor believes in and actions he/she takes to attain a goal (Simon 1978). Rational actors would actively impose their visions upon the knowledge they use for problem solving; in this way they are turning their visions into realities.

However, learning activities, such as sourcing and processing knowledge, are not free. Therefore, it is essential to decide when to terminate certain activities (such as information gathering) and move to others (such as solution testing). Therefore, there is a cost effectiveness concern and a pragmatic dimension to problem-solving. As articulated in the discourse of procedural rationality, in problem solving a rational actor would settle on an appropriate solution subject to various specificities of the situation.

**The organisational system**

The organisational system deals with the actors and institutions in problem solving. Here, organisation is used as the basic vehicle for analysis of actors in problem solving. The basic function of organisation is that it formalises, motivates, and facilitates problem solving and knowledge generation activities. Organisation will define the responsibilities of an actor through which problem solving is expected and motivated. In other words, the role attributes of an actor in an organisation would define the obligation or necessity to solve problems. For example, governments are obligated to solve problems concerning public infrastructure and services, macroeconomic coordination, and market regulation etc. Firms have to solve problems engendered in making and selling products to survive in a competitive market.
Then, the question is: how does problem solving take place within an organisation? The problem solving process of an organisation is characterised by the integration of three components: knowledge base, knowledge frame, and knowledge dynamics (Nonaka et al. 2000). The knowledge base provides the stock of knowledge, which includes the knowledge of all individual members and knowledge stored in the format of documents, files, data etc. The knowledge base forms the background knowledge of an organisation. The knowledge frame concerns the structure of an organisation, and lays out the task allocation, configuration of authority, and distribution of resources. The knowledge dynamics concern the interactions among members through which knowledge is shared, combined, and generated. Besides formal organisational rules, organisational culture and routines will be the key factors facilitating the knowledge dynamics. Therefore, effective problem solving would involve a high level of knowledge dynamics which actively mobilise the knowledge base within a properly designed knowledge frame. The organisational dynamics in learning-based TES would thus be generated through three sources: expansion or update of the knowledge base, optimisation of the organisational structure, and intensification of the knowledge dynamics.

However, problem solving can hardly be confined within an organisation. An organisation has to actively reflect upon the external environment for awareness of problems. An organisation also has to go beyond its boundary when sourcing external knowledge. Therefore, the three components of problem solving within an organisation would also be important at the inter-organisational or economic system level. The knowledge base of an economic system is constituted by the knowledge bases of all participant organisations. The knowledge frame and dynamics at the economic system level would involve inter-organisational relations and interactions through which knowledge is exchanged and processed on a broader scale. Therefore, there would also be the ‘structure’ of an economic
system, which works in the same fashion as organisational structure to formalise, motivate, and facilitate inter-organisational problem solving. The intensification of inter-organisational interactions has fostered the development of intermediate organisations, which function as mediators and coordinators among various organisations (Amin 1999). In this sense, the role attributes of intermediate organisation are normally purposefully constructed for solving inter-organisational problems that cannot be solved through the market or a single organisation.

The territorial system

The territorial system of a TES concerns how territorial factors are functional in problem solving in learning-based development. First of all, a territory indicates the geographical agglomeration of a certain number of organisations. As widely discussed and agreed in learning region literature, geographical proximity facilitates frequent, sustained, and spontaneous inter-organisational interactions which are requisites for possessing uncodified or tacit knowledge. These functional interactions cannot be planned beforehand by any formal organisational design. In this sense, a territory does not naturally constitute a place for problem solving; on the contrary, problem solving gives rise to territory as actors are drawn together by the inter-organisational knowledge dynamics.

Second, it concerns how territorial factors would support problem solving that involves actors from different locations. Despite the rich local learning based on geographical proximity, there has been increasing pressure for actors to learn at a distance. Therefore, problem solving is performed within a multi-location network and multi-scale processes. This form of learning-at-distance is often termed as “strong focused learning”, which is structured upon a specific project with organised external relations (Crevoisier and Jeannerat 2009). There is
then the question of how an actor would source external knowledge that is not locally available? General knowledge about where the new knowledge might exist would serve as a starting point. Therefore, it is essential for a locality to appear in certain ‘territorial images’ to position itself in a multi-location network. Such territorial images would not only generate a place identity for local actors, but also shape an outsider’s ex ante knowledge on local actors. In this sense, place branding and place marketing can be seen as territorial dynamics to build up territorial image that supports actors in multi-locational learning.

Third, territory constitutes a major factor of pragmatic conditions in a problem context. On the one hand, territory, as an administrative unit, could be an integrated part of problem context. The regulatory environment created by the administrative apparatus remains an immensely formative influence on economic activities (Whitley 1998). This is especially so for local government, which only has the incentive to solve a problem if it can be convinced that the benefits would concentrate in local territories. The ‘location’ of problems thus becomes a pragmatic concern in problem solving. On the other hand, there will be territorially specific factors that constitute pragmatic situations for problem solving. These territorially specific factors include assets that are difficult to move or imitate, such as place-based preferential policies, territorial conventions and relations, or specialised knowledge in territorialised organisations and communities, such as a skilled labour market. Meanwhile, as a locality is open to external impacts from wider economic conditions, there will also be a temporal dimension of territorial specificities, such as the effects of unpredictable events.

**Interactive situations: situational cases for economic linkages**

It is essential to apply the conceptual framework to achieve the research objectives of identifying the key actors, functions, patterns, and dynamics of a small town’s economic
linkages. The conceptual framework has empowered us to formulate hypotheses to research questions developed. These hypotheses would then be tested through empirical studies. In the fashion of scientific discovery in natural science, if the empirical facts conform to the hypothesis, the theory (conceptual framework) is corroborated; otherwise, it is falsified. However, in social science, testing of theory can hardly be as scientific as in natural science. Theories in social science tend to be situational models, which explain the appropriate actions in a given situation. In this sense, to hypothesise in this research is to construct interactive situations in accordance with the conceptual framework. In relation to the research aim and objectives, this research is to build interactive situations of economic linkages for problem solving. An interactive situation has to explain a coherent set of economic linkages that are functionally integrated to accomplish any task raised while solving a problem. As revealed in the major procedures of problem solving, this research focuses on three general sets of interactive situations of economic linkages in a certain problem context; these are problem awareness, problem construction, and solution testing.

As the learning capacities of an economy are determined by its ability to combine and transform old knowledge into new knowledge, or its capacity for ‘transposition’ which indicates its capacity to transfer knowledge and skills in one area to another, then ‘interactive situations’ provide the key mechanisms of learning. Therefore, the nature of ‘interactive situations’, whether they facilitate knowledge exchange or block it, could be the core of learning dynamics in the economy. For the analysis of organisations in the economy, it is thus crucial to identify what formal and informal institutional structures have produced what kinds of interactive situations in the economy; how these interactive situations have enhanced or blocked learning; and what new economic linkages have been built during these processes.
The ‘interactive situations’ not only function as a learning mechanism, but also as a sphere where voices are heard. The interests of groups and communities are more likely to be different, or even conflicting, than they are to be homogenous and consistent. The degree of diversity of interests can be determined by long term social and cultural factors, such as ethnicity, religion, and culture. A diversity of interests can also be produced via institutional arrangements during development processes; for example, the hukou system that created the situation of rural population against urban population. It could also result from the accumulative effects that work on winning and losing groups in practice, which could be unexpected, unforeseeable, and undesirable consequences. It is important for a diversity of voices to be heard, not only for the common value of democracy and justice, but also for good economic reasons. This is an essential feedback mechanism that could allow mistakes to be corrected in the early stages. It is also important for the formation of economy-wide confidence that would eventually lower the transaction costs of coordination.

In this research, the empirical investigation is not designed to corroborate or falsify the entire conceptual framework. Rather, empirical study would contribute to this research in two major ways. On the one hand, the empirical study is to test to what extent empirical facts can be explained by the proposed situational cases. Through such tests, we would have confidence in the explanatory power of theory in at least certain situational cases. On the other hand, empirical facts would provide demonstrations of how conceptual processes constructed in situational cases are carried out in the real world.

*Interactive situations of Learning-based TES*

Economic linkages are conceptualised as functional interactions between actors in Learning-based TES. Therefore, in order to examine economic linkages, we need to extract the
interactive contents of the Learning-based TES. Interactive situations are the place where three systems interact to drive changes in each other. The organisational dimension of the action framework thus involves a bundle of formal and informal rules and the role dimensions of actors in problem solving are thus exhibited as role playing and rule following activities. However, the rational dimensions of actors in problem solving would always provide dynamics to break these rules in accordance with knowledge dynamics. Thus, the rule following activities of actors cannot be seen as absolute. There is always space for rule breaking and formulation of new rules. This research proposes to capture these interactive situations through developing the interactive dimensions of Learning-based TES. Interactive dimensions indicate the variables of the Learning-based TES, whose different values and different combinations of these values will generate different functions and forms of interactions. We now consider the interactive dimensions of each of the functional components of Learning-based TES: the knowledge system, the organisational system, and the territorial system.

*The knowledge system*

In order to explore the possible interactive situations in the knowledge system, this research proposes two key dimensions of knowledge dynamics that would have key effects on interactive behaviours.

The first dimension concerns the explicit or tacit property of knowledge. Whether the knowledge is explicit or tacit makes major distinctions in how the knowledge can be transferred, exchanged, and communicated. For explicit knowledge, this tends to be easier to gain access to or transfer from one actor to another. The reason is that explicit knowledge tends to be codified or standardised. Therefore, it can be contained in physical or digital
media, large amounts of which can be produced at low cost. Although explicit knowledge is highly transferable, this does not mean that it can be easily exchanged through the free market. Market transactions in knowledge as a commodity face a major challenge; the seller and the buyer of a piece of knowledge have a dilemma due to information asymmetry. The buyer may not know the value of the knowledge, so the buyer cannot decide the price they are willing to pay; however, once the buyer knows the knowledge, there is no need to pay for it. As a result, explicit knowledge is often capitalised and enclosed into physical assets that can be traded as a normal commodity, such as machines. For tacit knowledge, this tends to be possessed and carried only by human actors. More often, tacit knowledge would only be functional when certain social relations are available. Therefore, the transfer of tacit knowledge would always involve complex interpersonal interactions, or more precisely, socialisation. The transfer of tacit knowledge from one actor to another tends to be a collective learning process in which the exact contents of tacit knowledge are subject to mutation in a specific problem context. For tacit knowledge that is conditioned on a set of social relations, the acquisition of it tends to be the acquisition of the whole team of actors that carries the tacit knowledge collectively.

The second dimension of interactive situations concerns the problem context of interaction, whether the interactive dynamic is within or outside a certain problem context. As we have discussed the distinctions between internal and external knowledge, those distinctions would also generate difference in interaction that deals with the interplay of internal and external knowledge. Intra-context interaction in this study is defined as interactive activities in the processes that turn external knowledge into internal knowledge. Therefore, the premise of intra-context interaction is the existence of a problem to be solved. In this sense, intra-context interaction starts from the awareness of a problem and runs through the stages of problem
construction and solution testing. By contrast, extra-context interaction is defined as interactive activity that does not target any particular problem and activity that aims to decontextualise internal knowledge – an attempt to make new knowledge transferable for external use. Thus, extra-context interaction is essential in both knowledge sourcing that enriches background knowledge and knowledge diffusion that contributes to the knowledge assets on a broader scale.

The interplay of the two dimensions of interactive dynamics in the knowledge system can thus produce four broad categories of possible interactive situations (see Figure 4.4). The top left quadrant concerns the situation of interactions or economic linkages that convey explicit knowledge in an intra-problem context. This situation involves knowledge transferring within a problem solving team, such as circulation of internal files or internal training. It is important to note that, although the circulating knowledge is intended to be explicit, the language, text, or image that carries the knowledge would still largely be context specific. The understanding of it would be conditional upon common understanding of a set of words or practices that have particular meanings within the team.
The top-right quadrant concerns the interactive situations where explicit knowledge is mobilised in an extra-problem context. These situations include general monitoring and knowledge sourcing activities that gather feedback and information. These activities are necessary as they keep the actors alert for problem awareness. Also, the constant inflow of new knowledge and information helps to enrich the actors’ background knowledge and broaden the knowledge vision. Therefore, interactions in these situations tend to be routinised in order to ensure a constant inflow.

The bottom left quadrant concerns the interactive situations where tacit knowledge is mobilised in an intra-problem context. As the functional know-how type of tacit knowledge is possessed by human actors, another type of tacit knowledge – know-who – would play an
essential role in sourcing and acquisition of tacit knowledge. Intra-context interactions are also involved in structured (or meta-model based) knowledge processing through which individual know-how is applied to interpret external knowledge and communicate it to other team members. The trial and error of knowledge combination also constitutes an important interactive situation where tacit knowledge is generated and accumulated. Past mistakes in such trial and error processes will also be valuable assets as they somehow lead to the path to the right answers. It is the ‘path’ that sometimes constitutes the content of tacit knowledge as it contains the ‘methodology’ that is most likely applicable to other similar problem contexts. Nevertheless, such methodology is tacit and not transferable to another actor.

The bottom right quadrant concerns the interactive situations of tacit knowledge in an extra-problem context. Tacit knowledge that an actor has acquired through problem solving will be accumulated by the actor in the form of experiences or personal connections. Though void of a specific problem, some personal connections are considered important so that efforts are spent to maintain them through socialisation. General talent sourcing practices can also be considered as extra-context interaction involving tacit knowledge. In order to acquire the tacit knowledge possessed by a talent, one would have to acquire the talent as a whole (such as by hiring the talent). However, it is often the situation that talents are recruited without a clear idea of how their expertise would be applied. Such acquisition would be more of an attempt to enrich background knowledge. General consensus or shared background knowledge can also be considered as tacit knowledge external to another particular problem. It is valuable as it could facilitate and speed up the process of reaching consensus in a particular problem context.
The organisational system

We now consider the interactive dimensions of the organisational system. As illustrated above, knowledge has to be effectively and efficiently transferred from one actor to another in problem solving. In this respect, the organisational system constitutes the basic institutional infrastructure for interactions that pump knowledge dynamics. Based on the aforementioned characteristics of organisational learning, this research proposes two dimensions of interactive situations in the organisational system.

The first dimension concerns the attributes of role playing, whether interactions are formal or informal. Here, formal interactions are defined as interactions directed and coordinated through formal rules. Formal rules are explicitly stated rights and obligations of one actor towards the others. Thus, formal interactions tend to be ‘official’ situations where actors behave directly according to their explicitly defined positions. These interactions are normally well organised and subject to legal enforcement. However, it is also important to bear in mind that there is no guarantee that formal rules will always be fully followed and they can be substituted or suspended in practice. In contrast, informal interactions are defined as interactions that are coordinated by implicit rules such as routines, customs, and conventions and interactions that break rules, both formal and informal ones. Informal interactions can be more flexible than formal ones as they can explore more possible channels of interactions. At the same time, informal interactions are also difficult for outsiders to penetrate as the implicit rules are difficult for them to fully acquire. However, for those informal interactions that break rules, it is important to understand them as potential initial steps of rule creating activities.
The second dimension concerns the levels of interactions, whether interactions are intra-organisational or inter-organisational. Intra-organisational interactions take place within the boundaries of one unitary organisation. Of course, the boundaries of any organisation are always soft ones. This research does not enter the debate about how to draw the boundary for an organisation but uses this idea in the most convenient way. A unitary organisation here is defined as one unit of registered organisation (for firms and intermediate organisations) or one administrative level of a government body. In this sense, inter-organisational interactions involve actors from more than one organisation, such as inter-firm and inter-government interactions and intricate interactions among firms, governments, and intermediate organisations. Within an organisation, there tends to be better structure for interactions, while it is more difficult to have such a pre-defined structure for inter-organisational interactions. Such inter-organisational structure tends to emerge gradually in an evolutionary fashion. As this research aims to explore the pattern of economic linkages and interactions, the pattern of such overarching structure for intra- and inter-organisational interactions is therefore important.

Based on the two dimensions of interactions and role playing, we are now able to draw out four basic interactive situations in the organisational system (see Figure 4.5). The top left quadrant concerns formal interactions within an organisation. In this interactive situation, there will be interactions that follow standardised procedures and rules, such as hierarchical command-execution interactions, collaborative interactions based on division of labour.
<table>
<thead>
<tr>
<th>Role playing characteristics</th>
<th>Intra-organisational</th>
<th>Inter-organisational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal</td>
<td>Following standardised procedures and rules; Hierarchical command-execution; Inter-departmental collaboration based on intra-organisational division of labour</td>
<td>Coalitions (strategic alliance; contracted cooperation; arranged exchange of personnel); State intervention in the form of industrial policy; Intermediate organisations (business associations, government consultative commissions); Public participation</td>
</tr>
<tr>
<td>Informal</td>
<td>Interactions coordinated by intra-organisational culture, routines and conventions; Leadership and personal charisma; Trust building between members based on familiarity; Intra-organisational socialisation; Recruitment and promotion based on personal preference</td>
<td>Interactions coordinated by inter-organisational culture, routines and conventions (i.e. sectoral culture, consensus on industrial best practices and competitive morality); Study tours and visits; Brokers (double or multiple roles of one actor); Leadership, authority (professional identity), and personal charisma; Inter-organisational socialisation; Inter-organisational turnover (job-hopping)</td>
</tr>
</tbody>
</table>

Figure 4.5 Interactive situations of the organisational system

Source: By author

The top right quadrant concerns formal interactions between multiple organisations. In this interactive situation, inter-organisational rules need to be somehow established upfront. Therefore, two or more organisations will firstly sign official contracts and agreements that lay out a set of rules; alternatively, an organisation can designate official channels for other organisations to participate in internal activities. In this sense, formal interactions that take place in inter-organisational situations could include those under contracted cooperation, such
as the arranged exchange of personnel, conferences, and meetings. In terms of government-firm interaction, state-intervention can also be concluded to fall in this interactive situation, especially support or restrictions through industrial policies. Meanwhile, public participation in government policy making also involves formal and inter-organisational interactions.

The bottom left quadrant concerns informal interactions within an organisation. In this interactive situation, organisational culture, routines, and conventions will play important roles. Other implicit factors include leadership, personal charisma, and trust built through familiarity and intra-organisational social activities, i.e. parties. Hierarchical interactions could also involve informal and implicit factors, such as recruitment or promotion based on the leader’s personal preference.

The bottom right quadrant concerns informal interactions between multiple organisations. At the inter-organisational level, there will also be culture, routines, and conventions in action, such as sectoral culture, competitive morality, and widely recognised and applied industrial best practices. Study tours and visits which enhance mutual understanding between organisations could also be included in this situation. Individual characteristics, such as authority, leadership, and personal charisma, would also impose crucial effects on inter-organisational interactions and linkages. This could be the case if one individual has dual or multiple organisational roles. Such characteristics could generate implicit effects on interactions as other actors would be consciously or unconsciously affected by that individual’s other role identities.

The territorial system

We now explore the possible interactive situations in the territorial system. Any problem solving activity must take place in specific conditions of time-space. At the same time, any
specific condition of time-space would have its own characteristics that affect interactive behaviours. Again, this research proposes two interactive dimensions for the territorial system.

The first dimension concerns the geographical space of interaction: whether the interaction takes place in geographical proximity or in a multi-locational network. Interactions in a proximity situation tend to be frequent, spontaneous, and dispersed. Arguably, in intra-organisational interactive situations, ‘organisational space’ has often presumed a geographical proximity between members of an organisation, as they are in the same building or company sites. Scholars in organisational studies have argued that organisation is the ‘space’ or ‘place’ where interactions take place; nevertheless, they have failed to develop explicit arguments on this crucial geographical feature of economic interaction. The importance of proximity which organisational studies take for granted has been treated seriously by economic geographers, who also extend such an argument to inter-organisational situations by examining the mechanism of agglomeration. On the other hand, the geography of interaction can also feature geographical distance, as interactions can take place in a multi-locational situation. Interactions in this situation tend to be organised and focused. Therefore, we would expect different interactive behaviours in these different types of interactive geography.

The second dimension concerns the types of specific factor in interaction: whether the factor has territorial or temporal specificity. Interactions, as with any type of economic activity, happen in a specific time-space. For the convenience of analysis, this research decomposes the specificity of any time-space context into two aspects. On the one hand, there is the kind of interaction supported or shaped by certain necessary territorially-specific conditions. Certain territorial factors would enable certain interactive behaviours that are functional to
problem solving. In this way, a certain functional interaction can only exist in a specific locality. In this respect, there will be an element of ‘territorial endowment’ in an interactive situation which delimits the range of possible interactive behaviours. For example, the presence of a gold mine would make gold mining activity possible for the local area. On the other hand, there is the kind of interaction supported or shaped by certain temporally specific conditions. This indicates that certain necessary conditions for economic interactions are only valid for a limited period of time. Temporal factors are not as permanent or endurable as territorial factors. Temporal specific factors are subject to the transient opportunistic use of an actor. Nevertheless, the distinction between territorial and temporal factors is a relative one. Indeed, they sometimes constitute and shape each other. For example, territorial specific factors could be the legacy of interactions that took place in a specific historical period, while the territorially specific factors can substantially underpin the capacity for interpretation and capture of any transient opportunity.

Developing from the two aforementioned dimensions of geographies and territorial specificities, this research proposes four basic interactive situations in the territorial system (see Figure 4.6).
The top left quadrant concerns proximate interaction with the territorial factor. Such situations include the locational proximity which lends easy access to some rare, valuable, and immobile resources. The top right quadrant concerns multi-locational interaction with the territorial factor. This involves interactions that manage to identify and establish a rather stable channel for economic linkages over distance. In this situation, the territorial factors could be the very reason why these separate locations would establish linkages which enable an actor to tap into certain economic resources that only exist in the other locations. The bottom left quadrant concerns proximate interactions with the temporal factor. This situation could include interactions caused by events. The bottom right quadrant concerns multi-locational interaction with temporal factors. A project could be a basic carrier for this interactive situation as it only organises a group of actors for certain tasks and dismisses them after the tasks are accomplished.
Features of Learning-based TES in China’s small towns

In chapter 3, this research highlights that the deep rooted urban-rural dualism in China has caused some inherent constraints for small town and rural development. These constraints deeply affect the dynamics and processes of learning in small towns and rural areas. In order to examine the interactive situations for economic linkages of small towns in China, we have to consider the specific characteristics of Learning-based TES in China’s small towns.

The knowledge system

The knowledge system of China’s small towns is subject to some inherent constraints. First, both the quantity and quality of knowledge to be mobilised by small town actors are inferior to what is available to urban actors. The reason is that small towns are at a huge disadvantage in providing local knowledge infrastructure (such as universities, research institutes, and technical schools etc.) due to uneven distribution of education resources in China (Qian and Smyth 2008). The majority of universities and research institutes are owned by central and provincial governments and are located in large cities. Private universities only started to develop in the late 1990s and they are normally located in big cities as well. Without the presence of universities and research institutes, small towns cannot guarantee a steady supply of high quality human resources internally. Second, small towns are not ideal destinations for external talent. Small towns normally lack urban amenities that are attractive to high level talent, especially in terms of the under-supply of cultural and entertainment amenities such as libraries, theatres, sports centres, high end shopping centres etc. (Zweig 2006).

The organisational system

The organisational system of China’s small towns has several distinctive features. State-owned enterprises (SOEs), the dominant forces of the industrial sectors in most major cities,
are usually not key players in small towns (Wang and Hu 1999). SOEs are mostly located in cities as they were firstly planned before the economic reform. Only a small number of small SOEs were established in the county seats. After several rounds of SOE reform, especially the ‘seize the large, let go the small’ (zhuada fangxia) policy, those small SOEs were either shut down or sold to the private sector. In contrast, small town economies have been built upon TVEs; as explained in the previous chapter, the organisational and institutional characteristics of TVE development have knitted government and firms together.

There are also some distinctive features about small town government. In China’s system, governments are entitled to enormous power to influence local economic activities, especially the power to approve development projects (Walder 1995). Major projects with large sums of investment have to gain approval from the higher levels of government. In China’s current structure, major approval power resides at the prefectural level and above. As development projects go to higher level government, their locations also follow the location of high level government – that is, cities. Restricted by the approval power of county level and township level government, small towns are normally not the destinations for major development projects, especially those with external investors. In this light, for those small towns that have achieved high economic growth since the 1980s, their low hierarchical ranking becomes a major barrier for further development. Central government was aware of this problem and allowed several administrative adjustments to grant these more developed small towns greater autonomy (Zhang and Wu 2006). To promote a county to a county level city is the most common practice to raise the administrative rank of small towns, and is mostly welcomed by local county governments. In contrast, another practice, that of promoting a county by annexing it as a city administering district, is largely resisted by local county governments, especially those with a solid basis of local industries. The reason is that, though
the rank of county official is raised, they have less power over local development as the city government can now directly intervene.

**The territorial system**

The geographical location of small towns is still a major development factor in China, especially at the early stage of industrial development (Broadman and Sun 1997). Small towns in the classic regional models can benefit from their locations in two general ways: their proximity to major metropolitan cores, such as small towns in the Pearl River Delta being close to Guangzhou and Hong Kong; or due to their location in coastal areas to gain transport advantage when developing export oriented industries. Another important territorial feature of small town development is their rural origins. Some of the social and cultural traditions, customs, and values of rural communities persist even in the local areas that were urbanised during the development processes (Fei 1992). Those conventions that are usually specific to rural communities can have significant influence on interpersonal interactions, such as the cooperative tradition, the value of family and kinship, and trust between local acquaintances. Over the years of development, especially in manufacturing, small towns in these regions have also accumulated valuable assets in terms of a skilled labour pool, a complete industrial chain, and customer relations. These industrial assets are created by local actors, and eventually territorialised in local areas. In other words, the territorialisation processes are considered as asset creation and accumulation processes, which are also capacity building processes. Therefore, this research pays attention to the embedding process of ‘new’ assets.

Another important geographical feature that might affect development context for small towns is that major policies and institutional reforms are often not implemented evenly across
provinces. Some provinces, mainly coastal ones such as Guangdong and Fujian, are assigned to carry out marketisation reforms earlier than the others. Such a gradual and experimental approach towards institutional reform could also be a major force in creating temporal and territorial specificities that eventually lead to inter-regional differentiation. Just like regions that are first to master a superior technology will gain first mover advantage, regions that are first to reform will also have such first mover advantage (Fan 1995). The specific institutional conditions in selective localities allow them to draw and facilitate activities not possible in other locations. The designation of four cities as Special Economic Zones (SEZs) for foreign investment in the early 1980s is an example. At that time, the range of locational choices for foreign investors was limited to these specific localities. As a result, these localities had the advantage of gaining access to foreign investment, not because they were evaluated by investors as the most attractive destinations, but because they were the only options. Foreign investment will then bring with it technology, trade relations, business best practices and other economic assets that are essential for a locality’s evolutionary trajectory.

Among these features, there are some which could be considered as disadvantages for problem solving in China’s small towns, including the lack of knowledge institutions, the low hierarchical rank of administrative powers, and the weak industrial and infrastructural basis. Therefore, it is interesting to explore how Learning-based TES of small towns would actually ‘learn’ to overcome these disadvantages.

*Interactive situations of problem solving in China’s small towns*

Drawing upon the characteristics of Learning-based TES in small towns, this research proposes possible key problem solving cases in China’s small towns. For each case, this
research also postulates hypotheses on the possible interactive situations to derive empirical questions to be answered.

First, this research is interested in the making and implementation of strategies, including strategies, plans, and policies made by governments, firms, and intermediate organisations. For functional activities in problem solving, all actors, either as individuals or collective groups, must act upon strategies. Firms would have business strategies or plans to set the direction for product development and market expansion. Local government, especially in China’s context, makes strategies, plans, and policies that have profound effects on the local economy as a whole. Thus, this research considers strategy making and implementation as the basic level of problem solving. Strategy making is essentially a process of transforming awareness of a problem into a constructed problem. Meanwhile, the implementation of any strategy is essentially a process of solution testing, which often leads to subsequent practical problems or major problems that contradict the meta-models for the original constructed problem.

Apparently, the explicit content of any strategy is a direct target for empirical investigation. However, this research is not only concerned with what strategy is made, but also, more importantly, with how that strategy is made through examining the interactive situations of strategy making. Generally, strategy making would mainly involve intra-problem context, intra-organisational, and proximity interaction contexts. In this sense, all possible interactive activities listed in relevant quadrants in the previous section are subject to empirical investigation, in terms of whether they empirically exist and what practical form they take. In particular, this research would investigate the following empirical questions:
• **Regarding the knowledge system:**
  - What meta-model (theoretical knowledge) is used in making such a strategy?
  - How is external knowledge sourced and processed?

• **Regarding the organisational system:**
  - Who (or what position, what department) would make key decisions?
  - What are the procedures for decision making?

• **Regarding the territorial system:**
  - What are the histories of strategy making?
  - What are the local cultural or conventional factors or events in strategy making?

On the strategy implementation side, we would focus on the more practical problems and the operation of the feedback mechanism. For the delivery of any proposed solution, the adjustment of organisational and institutional arrangements is often a must. The set-up of new organisations can reflect the essential efforts of adaptive activities. These new organisations are created as new kinds of economic linkages are demanded, new forms of economic interactions are introduced, and new types of development assets are expected. Therefore, this research is particularly interested in the empirical study of institutional changes and the establishment of new organisations. In this respect, this research would raise questions such as:

  - What institutional or organisational changes are made to implement a strategy?
    What new organisations (or new departments) are created?
  - What is the new organisational structure? How does it define the division of responsibility and labour?
  - What kinds of new personnel are brought into new organisations? How are they selected or recruited? What is their background knowledge?
What are the social characteristics of the organisations’ members? What are the cultural or conventional rules that they follow?

As previously mentioned, small town actors are significantly disadvantaged in access to resources for problem solving, in terms of the lack of administrative power, investment, and infrastructure. Therefore, the capacities of small town actors to acquire resources from external sources are crucial for small town development. In this sense, long distance economic linkages are also an integrated part of strategy making and implementation. For this reason, this research also has a specific interest in the empirical facts of economic linkages and interactions at a distance. Such activities would tend to fall into inter-organisational and multi-locational situations. In this light, this research will investigate key questions like:

- What knowledge is acquired through long distance economic linkages?
- How do local actors get to know actors from other locations? How do they reach agreement and start to cooperate?
- What measures have been taken to reduce the uncertainty in long distance interactions?

For the empirical questions raised from the three situational cases, the possible interactive situations developed in the last section could provide clues to guide the empirical investigation. Furthermore, the empirical facts will be used to check the proposed functional mechanism in the conceptual framework of Learning-based TES. Through the results of such tests, this research expects to consolidate the theoretical robustness of the Learning-based TES and make it more useful for practical applications, such as generating implications for solving other conceptual problems or for policy making.
Research Methodology

This section deals with the methodological design of this research. In general, this research adopts the comparative case study as the basic methodological strategy. Two county level units, Kunshan (in Jiangsu Province) and Shunde (in Guangdong Province), were selected as the two localities for case studies. Informed by the previous theoretical discussion, this methodological section also explains the targeted sources for empirical data and appropriate methods to collect them. Lastly, a brief report on the processes of field work and general information on data collection and analysis is also presented.

There are a number of issues around how small towns in China fit into the conceptual idea of a Learning-based TES. The specific geographical scale of a Learning-based TES of small towns is yet to be defined. This research adopts ‘county level administration’ as the geographical unit of a Learning-based TES for the analysis of China’s small towns. Here, ‘county territory’ is defined as a locality bounded by a county level administrative district that holds a coherent economic system. The justification of ‘county territory’ could be characterised in three main ways.

First, the county level administration is a key interface for the coordination of small town development. Under China’s administrative system, although there are township level governments that administer small towns, they are subordinate to county level government, at which interface powers are centralised. Normally, township level government enjoys very limited autonomy on policy making. In China, it is policy making at county level that most effectively influences small town development.
Second, the ‘county territory’ (\textit{xianyu}^{44}) has increasingly been the preferential territory for the delivery of central policy. Central government has been promoting the decentralisation of power to county level government to counteract the negative effects of over-centralised power at the prefectural level of government under the current ‘city administering counties’ system.

Third, ‘county territory’ conforms to the trend of on-going diversification of territorial economy. In the classic territorial development models, both Southern Jiangsu and the Pearl River Delta have developed variegated patterns among their constituent cities and counties. The scaling down to ‘county territory’ thus arrives at a more appropriate scale for examination of the territorial economic system. Applying the concept of ‘county territory’, models of territorial economic system built in this research are thus at the geographical scale of county level units.

\textbf{Methodological design: comparative case studies}

Case study strategy has been widely adopted in regional and territorial studies. In fact, many of the key theories have been developed from case studies of a specific locality, such as Silicon Valley, the Third Italy and so on. Case study strategy also works best in this research. The Learning-based TES approach has pointed to the cases of successful development upon which development model will be formulated. The successful cases are always about specific localities. At the same time, this research takes development as processes which are evolutionary. Therefore, this research will need to investigate the history of local development and understand how past activities and experiences have influenced those of the

\footnote{县域}
present. Such a temporal dimension of analysis will need a specific locality to provide a geographical fix for evolutionary processes.

The next question concerns the number of cases to be selected. This research selected two cases. On the one hand, the reason for selecting more than one case is that a single case can hardly have the capacity to accommodate the diversity of possible interactive situations in the Learning-based TES. Even though two cases can by no means reflect all possible interactive situations, they allow much more room for the illustration of diversities in local economic development. Another major point for more cases, rather than less, concerns the potential impact of this research. As local development in China is highly diversified, the specific contexts of a single case have also limited the scope to draw implications for other localities. In this sense, two cases can also increase the applicability of research findings and augment its impacts. On the other hand, the reason for not selecting a larger number of cases was practical concerns. As this research is an individual project and constrained by a very tight timetable with limited financial resources, two cases were found to be appropriate to serve the purpose of the research.

As two cases were selected, there must be logical connections between them. It is less meaningful to treat them as discrete, self-enclosed and analytically separate objects. A basic strategy to establish such connection between cases is to compare them with a view to identifying the similarities and/or differences between them (Ward 2010). As Ragin argues, “Comparison provides a basis for making statements about empirical regularities and for evaluating and interpreting cases relative to substantive and theoretical criteria” (Ragin 1987, p.1).
In this sense, the conceptual framework developed in the last section lays the foundation for comparative analysis as it establishes a vocabulary to compare case studies along standard lines. As Pickvance (1986, p.36) puts it, “comparative analysis is best defined as the collection of data on two or more situations, followed by an attempt to make sense of them by use of one or more explanatory models”. Meanwhile, causation has been a major concern in case study design, which is regarded as insufficient or inappropriate to perform generalisation and produce law-like explanation. However, Sayer (1984) rejected the idea that the way to establish causation is by identifying empirical regularities and generalising from them. Instead, the emphasis is not on causation per se, but rather on causal powers and liabilities. As Sayer (1984, p.85, original emphasis) puts it, “a causal claim is not about a relationship between separate objects or events but about what an object is like and what it can do and only derivatively what it will do in any particular situation”.

**Case selection**

As explained, this research sets out to select two county level administrative units as the localities for case studies. The selection criteria have integrated several concerns. First, they have to be cases of successful development over the long term. Second, this research aims for cases that are contextualised within these three classic ‘model’ regions – Southern Jiangsu, PRD and Zhejiang. The reason is that studies on these regions have accumulated substantially over the years. Past studies have provided valuable materials for the examination of local development histories. Third, the two cases should be of major difference in terms of local development contexts. This is to deal with the issue of economic diversity. The preliminary sources for this information include existing studies and reports from the media. A general indicator to distinguish the local development patterns is the role played by government, in terms of whether local development is government led or private sector led (Zhu 2004).
Fourth, there are some practical concerns over the case selection. Localities where the researcher has local contacts are preferred. Local contacts, especially those with high social status like government officials and entrepreneurs, are essential to help to gain access to targeted interviewees and materials when carrying out research in China.

Taking all the above concerns into consideration, this research selects two county level units as the cases – Kunshan in Jiangsu and Shunde in Guangdong (see Table 4.2). Kunshan is a county level city located in the southeast corner of Jiangsu province, lying on the western border of Shanghai and the eastern border of Suzhou (see Figure 4.7). Kunshan is the most developed county level unit in terms of the size of total GDP. Kunshan is administered under Suzhou Municipality, which has been a central locality for the development of the Sunan model. Kunshan is famous for its government led and FDI led development (Wei 2010). Shunde is a city administering district of Foshan located in the south of Guangdong Province and the central part of the Pearl River Delta (see Figure 4.8). Shunde is also a highly developed county level unit, featuring a development pattern with a strong bottom-up private sector.

Table 4.2 Basic information about Kunshan and Shunde

<table>
<thead>
<tr>
<th></th>
<th>Kunshan</th>
<th>Shunde</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (million)</td>
<td>1.6</td>
<td>2.46</td>
</tr>
<tr>
<td>Area (km$^2$)</td>
<td>927.68</td>
<td>806.5</td>
</tr>
<tr>
<td>GDP (billion yuan)</td>
<td>292</td>
<td>254</td>
</tr>
<tr>
<td>GDP per capita (thousand US dollar)</td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>Number of towns</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Administering towns</td>
<td>Yushan, Bacheng, Dianshanhu, Huaqiao, Jinxì, Lujia, Qianleng, Zhangpu, Zhoushi, and Zhouzhuang</td>
<td>Daliang, Ronggui, Leliu, Lunjiao, Beijiao, Lecong, Jun’an, Xingtian, Chencun, and Longjiang</td>
</tr>
</tbody>
</table>

Source: Kunshan and Shunde Yearbook (2015)
Table 4.3 Basic information about Jiangsu and Guangdong

<table>
<thead>
<tr>
<th></th>
<th>Jiangsu</th>
<th>Guangdong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (million)</td>
<td>79.39</td>
<td>106.44</td>
</tr>
<tr>
<td>Area (km$^2$)</td>
<td>107,200</td>
<td>177,900</td>
</tr>
<tr>
<td>GDP (billion yuan)</td>
<td>2,474</td>
<td>2,986</td>
</tr>
<tr>
<td>GDP per capita (thousand yuan)</td>
<td>32.985</td>
<td>32.142</td>
</tr>
</tbody>
</table>

Source: Jiangsu and Guangdong Yearbook (2015)

Figure 4.7 Location of Kunshan

Source: By author
The selection of Kunshan and Shunde also corresponds to the latest national development strategies, so that the research findings can have broader implications for China’s development. First, the development experiences of Kunshan and Shunde are valuable for the implementation of the new urbanisation strategy. The key challenge for new urbanisation is that urbanisation should be backed by successful industrial development which provides employment for the incoming flow of rural migrants (Qian 2014). Both Kunshan and Shunde are development models with urbanisation that is coordinated with industrialisation. Second, Kunshan and Shunde are integrated parts of regional development in the Yangtze River Delta and the Pearl River Delta respectively. In the latest national policy, urban agglomeration has been identified as the basic spatial form for regional development, consisting of highly dynamic central cities as the core development engines, and nearby smaller cities and towns knitted in by a dense web of economic linkages (Fang 2012). The major problem is that for many targeted urban agglomerations, though central cities are dynamic, there are hardly any substantial economic linkages between them and other smaller cities and towns. The
examination of the economic linkages of Kunshan and Shunde may offer key insights into the mechanism of regional integration. Third, Kunshan and Shunde both have a strong manufacturing sector, which is the key sector subject to the national strategy of economic restructuring. More specifically, industrial upgrading led by technological innovation has been the major theme for restructuring of manufacturing. The restructuring experiences of Kunshan and Shunde can provide a lens for the observation of more general restructuring processes in China’s economy. Fourth, Kunshan and Shunde are both ‘special zones’ for experimenting with new policies and programmes. Therefore, there will be experimental and pioneering methods of local governance ongoing in both cases, and how they work out can have great effects on future policy making in China.

**Data collection and processing**

This research adopts two general strategies in data collection – desk research and field research. The desk research involves collecting secondary data and contextual materials such as economic statistics, policy and plan documents, and news on local events; and the field research involves collecting primary data through attending local events, visits to relevant organisations, and interviews with key people.

In conducting desk research, the official websites of the Kunshan and Shunde governments provide a substantial source of materials. The government websites update the local news and publish the latest policy documents from both the local level and above. Local news on government websites focuses on the launch and implementation of key policy programmes.

---

45 For key statistic indicators reviewed and data source, see Appendix A

46 For local events attended, see Appendix E

169
Through these pieces of information, we can identify the key local projects and the major organisations involved. These organisations could be government departments, firms, or other intermediate organisations, which will be the targets for visits and interviews in the field research. Development plans and policy documents that are published on government websites are also important materials\textsuperscript{47}. They not only provide materials for identifying local development themes, but also exist as texts yet to be interpreted by different types of actors.

The primary research method employed in the field research is the semi-structured interview. Tailored so that they are concerned with key actors and their economic linkages, interview questions can be broadly summarised in three categories: the organisation’s structure and functions; the problems for the organisation and relevant strategy making and implementation; and interactions and relations with other organisations in the problem solving process (see Table 4.4). Before a specific interview, small scale desk research was also carried out to find out the recent activities of the organisation, which provides a strong basis for posing relevant interview questions. Therefore, the questions for a certain interviewee are highly customised\textsuperscript{48}.

\textsuperscript{47} For details of documents collected for this research, see Appendix B and Appendix C

\textsuperscript{48} See Appendix K for templates of more detailed interview questions (in Chinese) used in field work
Table 4.4 Key interview questions by type of organisation

<table>
<thead>
<tr>
<th>Type of Organisation</th>
<th>Key Interview Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>• What are the goals of local development and what are the problems?</td>
</tr>
<tr>
<td></td>
<td>• What policies have been implemented and how are these policies formulated?</td>
</tr>
<tr>
<td></td>
<td>• How does the government interact with firms and intermediate organisations?</td>
</tr>
<tr>
<td></td>
<td>• How does the government interact with other levels of government?</td>
</tr>
<tr>
<td>Firm</td>
<td>• How did the firm get started and develop to its present status?</td>
</tr>
<tr>
<td></td>
<td>• What are the trade linkages of the firm?</td>
</tr>
<tr>
<td></td>
<td>• How does the firm react to market competition?</td>
</tr>
<tr>
<td></td>
<td>• How does the firm interact with other firms, government, and intermediate organisations?</td>
</tr>
<tr>
<td>Intermediate organisation</td>
<td>• In what situation was this organisation founded?</td>
</tr>
<tr>
<td></td>
<td>• What are the functions of this organisation?</td>
</tr>
<tr>
<td></td>
<td>• How does this organisation interact with firms and government?</td>
</tr>
</tbody>
</table>

Source: By author

The selection of organisations for interview also concerns a balance among different types of organisations. The fieldwork was carried out from May 2014 to August 2014. The author interviewed 33 people from 28 different organisations in Shunde and 22 people from 19 different organisations in Kunshan. The selection of organisations also aimed to cover every town in both Kunshan and Shunde49. For each town, the choosing of the targeted organisations was according to specific local contexts. However, some of the towns were bypassed or given less attention as their development themes are not among the interests of this research, such as agriculture and tourism development. The constraints of time and money on this research also accounts for the omission of certain towns.

Unfortunately, five interview requests were turned down. These intended interviews were with higher level government officials; more explicitly, two officials from the economic department of Foshan Municipality and Guangdong provincial government (Shunde case),

49 See Appendix D for distribution of visited organisations in different towns

171
two officials from the same department of Suzhou Municipality and Jiangsu provincial
government (Kunshan case), and one official from the central government. This gap in the
interview, however, was redeemed through collecting records of their public speeches and
their interviews in newspapers, books, or other media.

All interviews followed ethics procedures and obtained consents from interviewees\(^50\). The
average time of an interview took around 90 minutes. For privacy reasons, most of the
interviewees refused to be recorded. Interview data were stored in the form of notes taken by
the author. As this research kept interviewees anonymous, each interviewee has a code
identity in the format of ‘case name-numbering-organisational type’, such as ‘KS-01-O’,
‘KS-15-G’, and ‘SD-26-F’\(^51\). In a code identity, ‘KS’ stands for Kunshan and ‘SD’ for
Shunde. ‘G’ stands for government department, ‘F’ for private firm, and ‘O’ for intermediate
organisation. An interview can have double identities in terms of organisation type,
depending on the intricate nature of an organisation. For example, ‘KS-15-O/G’ is a senior
director of a government-owned industrial park: as an industrial park, it serves as an
intermediate organisation (labelling as ‘O’); however, since it is government-owned, it also
incorporates government functions (labelling as ‘G’).

In the following chapters, we will apply the conceptual framework to analyse empirical data
collected from the case studies of Kunshan and Shunde.

\(^{50}\) See Appendix H, Appendix I, and Appendix J for consent form used in field work

\(^{51}\) See Appendix F and Appendix G for information about the code identifies of interviewees
Chapter 5 The Economic Linkages of Small Towns

(1): learning-based development in Kunshan

Introduction: the development stage approach

This chapter reports the empirical findings of economic linkages of small towns through case studies in Kunshan. By applying the conceptual framework of Learning-based TES, the development trajectories of two cases – Kunshan and Shunde – are conceptualised as a series of problem-solving stages that lead to local development gradually and accumulatively. More explicitly, this research proposes development stage as an approach towards local development processes. Here, a development stage is defined by a major development problem; in this sense, a development stage involves a broad range of economic activities in the awareness, construction, and solution testing of an overarching development problem. Importantly, it is to unveil the connections between different stages of problem-solving as empirical evidence of the evolutionary nature of learning.

According to the Learning-based TES, each stage of problem-solving will be supported by the interdependent functioning of knowledge system, organisational system, and territorial system. Depending on the nature of the problem, it might incur distinctive interactive situations in the problem-solving processes. Therefore, it is reasonable to expect different contents and patterns of economic linkages in different development stages. At the same time, these problem-specific economic linkages will shape the conditions of the Learning-based TES for the next stage of problem-solving; in which way, the development processes of Kunshan and Shunde could be considered as evolutionary in nature.
Regional Contexts of Kunshan: persistent authoritarianism in Jiangsu

As a major component of the development contexts of Kunshan and Shunde, the processes of institutional reforms in Jiangsu and Guangdong have to be examined to identify how institutional reforms have been carried out differently and what structural constraints they have set for the evolutionary processes of Kunshan and Shunde. In this section, we examine the case of Jiangsu in the three major reshuffles of national policy framework as outlined in Chapter 3. The case of Guangdong will be dealt with in next chapter.

Jiangsu is a rather conservative reformer in rural areas. Jiangsu has been one of the strategic food production regions in China for a long history. Therefore, Jiangsu is tightly controlled by central government, mainly through assigning trustful cadres to govern the areas. Unlike rural reforms in poorer provinces, where bottom-up initiatives were strong, Jiangsu had carried out such reforms in a top-down fashion which was not different from execution of any other kinds of top-down commands. In terms of rural industrial development, rural enterprises in Jiangsu remained the feature of strong government-control (Ho 1994). The reason is both historical and political. Just before the reforms that made TVE development a nationwide phenomenon, Jiangsu had already developed a relatively strong industrial sector due to capable cadres and linkages with Shanghai. As a response to central government’s call for establishing factories in communes and bridges, local cadres in Jiangsu took a lot of efforts in facilitating industrial activities in rural areas. As cadres in Jiangsu were “trustful comrades”, it also meant that they had the qualities and capabilities to get things done. In this light, capable cadres managed to mobilize and channel necessary resources to local factories. Historical events had also played an essential role in the early stage of rural industrial development in Jiangsu. During the chaotic years of the Cultural Revolution, many
production activities in Shanghai had been disrupted. Many factories had to transfer some of their production capacities to rural factories. During this process, the rural factories in Jiangsu were able to get access to knowledge and information about production technology, factory management, and market (Bramall 2006). However, since both rural factories and urban SOEs were all controlled by the government, their cooperation was also officially arranged and approved, which was quite different from relocations of production to low-cost locations in rural areas. As a fact, government authority had always been a strong presence and they very much represented the interests of central government. As a result, when these commune factories were transformed into TVEs, local governments were in full control of local TVEs. Though many scholars have argued that TVEs were actually private enterprises, this was usually not the case for the TVE sector in Jiangsu.

During the crucial years when there were disagreements among central officials about marketization reform in the late 1990s, Jiangsu had also taken a quite regionally specific path. At that time, the appointments and promotions of provincial level officials were totally controlled by a handful of central officials and there was a strong factional element in such appointments and promotions, provincial officials were motivated to choose which side to stand by. It was important for local cadres to share the same idea with the advantageous side in political wrestling (Landry 2008). When Deng Xiaoping stopped at Nanjing, capital of Jiangsu, during his famous Southern Tour, he was warmly greeted by then head of Jiangsu provincial government, Chen Huanyou, and the then secretary of Jiangsu party committee, Shen Daren. According to documentary publication, Deng Xiaoping told Chen and Shen to seize the historical opportunity to develop export-oriented industries (Liu and Zhang 2011). Deng also suggested them to learn from the development experience of Singapore. Chen Huanyou took over the position of secretary of Jiangsu party committee in 1993, right after it
became clear that central government was to push forward Deng Xiaoping’s idea of deepening marketization reforms rather than the leftists’ idea of more directive planned economy. The promotion of Chen Huanyou showed the trust of central government on him. Quite interestingly, the first major project directed by Chen Huanyou after his promotion was to establish the Suzhou Industrial Park (SIP) in collaboration with the Singapore government. In 1992, Chen Huanyou sent several high level officials to Singapore to learn from the development experience of Singapore. When then premier of Singapore Lee Kuan Yew fixed the dates to visit Suzhou in May of 1993, Chen Huanyou was already scheduled for a meeting at Hong Kong (with important Hong Kong business figures like Li Ka-shing and Run Run Shaw) and a meeting with then President Jiang Zemin along with other heads of provincial governments. Chen Huanyou made apologies to the Hong Kong businessmen and Jiang Zemin for not attending their meetings so as to meet and negotiate with the Singaporean group. Since then, Chen Huanyou made every necessary effort to ensure the success of Suzhou Industrial Park. Indeed, the SIP became a huge success in attracting foreign investment, especially in technologically advanced industries. Chen Huanyou remained top officials of Jiangsu until he reached the age of 70 in 2003, when retirement was compulsory. After he retired, he was invited to sit as senior advisor of the SIP. Chen Huanyou, speaking from the perspective of top authority of Jiangsu, had never admired the Sunan Model. In an interview in 1998, Chen Huanyou said that the term ‘Sunan Model’ had never been used in any official documents in Jiangsu (Chen and Wang 1998). He also emphasized that the nature of Sunan Model was the development of collective economies in the form of TVEs. Reforms in the TVE sector were to sustain development of collective economies rather than promoting the private sector.
The success of SIP has injected huge and wide-spread effects on development strategies of other cities and counties in Jiangsu. The SIP has become a favourite site for visit-cum-educational tours. The development experiences and management modes of SIP are quickly absorbed by local officials to develop economic development zones in other parts of Jiangsu. Economic development zones (EDZs), in variation forms of the SIP, have become the key feature of Jiangsu’s development. Local officials in Jiangsu have been involved in the phenomena of “local policy isomorphism” as observed by Chien (2008).

Why the development mode of EDZ has been so popular in Jiangsu? The answers can be approached from the following aspects. The EDZ strategy suits the needs of individual career development of local officials. In China’s bureaucratic system, the office term of local officials was only five years; therefore, they tend to focus on short-term and individualistic achievement. In this light, the EDZ strategy perfectly matched with such demand from local officials. The EDZ was about the injection of huge amount of external investment into the local economy, which was much more time-saving than fostering the growth of indigenous firms. Meanwhile, to develop a successful economic zone in short time demands a powerful leader. The challenges for such leader not only include coordination between different governmental departments (such as those of land-use, urban planning, transport, and utility infrastructure), but also attracting external investors. Both tasks require strong coordination and marketing skills from the leader. Underlying such skills, the leader has to possess solid interpersonal relations with other government officials so as to win supports at the executive level. Such interpersonal relations are also required in negotiation of investment deals with external investors. The key point is that interpersonal relations as key assets in establishing economic zone are internal to an individual person – the leader. In most cases, it is reasonable to attribute the success of EDZ to the capabilities of the leader. As the promotional system
has a very strong meritocratic bias, local leaders who successfully direct development zones are most likely to get promoted.

The business and politics logics behind the EDZ strategy have had substantial effects on the structure of local economy. First, the EDZ strategy would always prefer foreign investment over domestic firms. Foreign investments are preferred because they tend to be huge in size; more technologically advanced than domestic firms; and more honest towards tax payment for government to control. More importantly, they can promote international trade, which is a key indicator used to evaluate local economic performance. Therefore, the EDZ strategy risks putting the domestic private sector in a disadvantageous position. Second, the EDZ strategy tends to reduce inter-place competitions to the individual quality of government elite. The development of EDZ tends to have very similar strategies in terms of targeted key sectors such as electronics and automobile. Though different EDZs have been advertising their advantages, these advantages tend to be difficult to differentiate as they always have the same package of preferential policies, physical infrastructures, and transport conditions. Therefore, the scope to differentiate economic zones has often been narrowed down to the capacities of local cadres to mobilise resources. As explained, the presence of very competent yet loyal cadres in Jiangsu has been both path-dependent and territorially specific. When they were appointed to high-level positions, it is conventional knowledge for them to consider themselves as the chosen ones that need to pass this test before promoting to another higher position. These competent cadres are particularly resourceful in terms of personal connections with other resourceful people, such as other high-level officials and successful entrepreneurs.

The structural constraints of Jiangsu have featured the persistence of governmental authoritarianism which can be summarised into four major points. First, local cadres in
Jiangsu are more attentive to direction and preference of higher level authorities. Second, the EDZ strategy becomes the favourite development strategy of local government because it best serves the personal interests of earning political credits. Third, foreign investment is preferred as it can effectively boost economic performance in short-term. Fourth, the individual calibre and personal connections of high-level officials could have huge influence on local development.

The Economic Linkages of Kunshan

Kunshan has a long history of over 2,200 years ever since the Qin dynasty. The geographical coverage of Kunshan has changed greatly alongside the shifts of Feudal regimes. Nonetheless, the current coverage has been intact since the Ming dynasty (around 1368-1644). After the establishment of People’s Republic of China, in 1958, Kunshan implemented the national policy of integration of administrative units (Township level government) and productive units (agricultural co-operatives). Administrative towns and townships under Kunshan County were replaced by the system of people’s communes. In 1983, the people’s communes were abolished in Kunshan and the administrative apparatus of towns and townships was restored. In the same year, the State Council approved Jiangsu to implement the policy of city-administering-county. As a result, Kunshan County became a subordinated unit of Suzhou municipality. In 1989, Kunshan was promoted to county-level city. In 2011, Kunshan was designated as one of the county-level units directly administered by the provincial government of Jiangsu.

Since the reforms in late 1970s, Kunshan has developed from an agricultural economy to an advanced industrial economy. In retrospect, the evolutionary processes of Kunshan’s economic development can be categorised into three development stages. The first stage is
the primary rural industrialisation stage from the late 1970s to the early 1990s. The second stage is the FDI-driven high-speed industrialisation stage from the early 1990s to the mid-2000s. The third stage is the structural transition stage from the mid-2000 till present. Based on empirical materials, this section examines the economic linkages of Kunshan in each development stage. More explicitly, it is to identify the key interactive situations of problem-solving in each development stage and specify the knowledge, organisational, and territorial dynamics that underpin the patterns and changes of economic linkage.

**Initial industrialisation (mid-1970s to late-1980s): locational advantage and linkages with Shanghai**

Before 1949, the economy of Kunshan had long been dominated by agricultural production. Industrial activities were also limited to the food processing industry and small craft workshops. From 1949 to 1978, industrial development in Kunshan underwent a very unstable stage due to political movements. Between 1950 and 1952, Kunshan industries had grown rapidly. Since the year of 1953, Kunshan government had started to implement the “socialist transformation” policy towards private industries. As a result, state-own industries (controlled by Kunshan County government) became the absolutely dominant component of local industry. In 1957, over 90 percent of the total industrial output was by state-own industries while collective-own industries only accounted for merely over 8 percent. From 1958 to 1961, Kunshan industries were involved in the “Leap Forward Movement” as numerous small factories were established, mostly producing building materials, fertilizer, and steel. Those very inefficient factories were shut down under central government’s industrial adjustment measures in 1962, when the total industrial output nearly halved (reduced by 38.37 percent). Although industrial activities had started to recover since 1962, the political turmoil of the Cultural Revolution (between 1966 and 1976) disrupted the
operation of industrial activities. Consequently, local industrial development in Kunshan largely stagnated for the turbulent decade.

During the three decades after 1949, the growth of industrial sector in Kunshan was moderate. In 1949, industrial sector only accounted for 26.75% of the total agricultural and industrial output; till 1978, the figure was 55.74%. However, in merely one decade after the rural reform, industrial sector had grown into the dominant sector of local economies. In 1990, the proportion of industrial output was 89% (see Table 5.1 and Figure 5.1).

Table 5.1 the portion of industrial output in selected years (Unit: ten thousand yuan)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total output</td>
<td>5,991.1</td>
<td>11,577</td>
<td>17,034.6</td>
<td>26,701.6</td>
<td>40,741.5</td>
<td>158,460</td>
<td>285,430</td>
<td>661,480</td>
</tr>
<tr>
<td>Total industrial output</td>
<td>1,602.9</td>
<td>4,172.3</td>
<td>5,712.7</td>
<td>13,582.9</td>
<td>22,712.2</td>
<td>128,924</td>
<td>250,304</td>
<td>589,429</td>
</tr>
</tbody>
</table>

Source: Kunshan Chorography Committee (1990)

![Figure 5.1 Percentage of industrial output in selected years (Kunshan)](image)

Source: Kunshan Chorography Committee (1990)
As the central party authorities shifted their primary task to economic development rather than ideological rightness in 1978, political conditions for local economic development in Kunshan also entered a rather stable period, which was a prerequisite for economic evolution and accumulation. Collective sector, consisting of county-level collective enterprises and TVEs, experienced an explosive growth instantly after the reform. In the year of 1979, the total industrial output of collective sector increased by 167%. In 1982, Kunshan County government implemented the central policies of inspection of state- and collective- owned enterprises. By the end of such inspection (March of 1985), there were 79 county-level collective enterprises and 677 TVEs (including 262 at township-level, and 415 at village-level) in Kunshan. Till the end of 1990, there were a total of 3688 enterprises in Kunshan, of which 60 were state-own enterprises, 93 were county-level collective enterprises, 1581 were TVEs, 1779 were individual and family run workshops, 15 were joint ventures with foreign investment, and only 1 was wholly foreign-owned enterprise. Apparently, if judging from the growth of number, private workshops were the most dynamic part of Kunshan’s industrial landscape. Nonetheless, it was the collective sector that contributed most in terms of industrial outputs. The TVE sector accounted for 67.14% of the total industrial output in Kunshan and county-level collective enterprises accounted for 14%. Although the number of individual and family workshops was massive, they were minor players in terms of industrial outputs, accounting for mere 0.62% of the total industrial output in Kunshan (see Figure 5.2).
In 1980, central government encouraged firms of different sizes, localities, and ownerships to collaborate with each other so as to improve the industrial sector as a whole. Kunshan government practised such guideline immediately by directing SOEs and county enterprises to transfer their production technology and labor-intensive production procedures (such as assembly) to TVEs. However, most of SOEs and TVEs in Kunshan were run at deficit due to low technology and chaotic management. Their collaboration failed to generate substantial positive impact on the local economy. In the early 1980s, Kunshan was the least industrialised county among all administering counties of Suzhou. In 1984, central government announced full-fledge reforms on economic system which lifted a number of

---

52 The 1980 Government Report by State Council read “making full use of strengths, preserving competition, and pushing for collaboration” (1980 年国务院政府工作报告提出“发挥优势，保持竞争，推动联合”)

53 See Decisions on reforms on economic systems, Central Party Committee, 1984 (中共中央关于经济体制改革的决定，中共中央，1984)
restrictions on interregional and inter-sectoral trade and investment. Consequently, the Suzhou municipal government and Jiangsu provincial government all started to facilitate economic linkages among local firms. However, as the industrial conditions were so poor in Kunshan, competent firms in Suzhou and Jiangsu neglected Kunshan as the destination for investment and collaboration. Kunshan had to look across the borders for external investment. To establish linkages with Shanghai became the top option, as the Kunshan officials summarised the strengths of Kunshan: great location, high-quality agricultural products, and abundant land and labour resources (He 2008).

In 1984, Kunshan government announced the local industrialisation strategy under the theme of “horizontal economic linkages”\(^ \text{54} \), stating “depending on Shanghai to the East and third-front industries to West, and connecting local rural enterprises”\(^ \text{55} \). This strategy aimed to attract external enterprises, especially those firms based in Shanghai, to invest and collaborate with indigenous enterprises.

Nevertheless, Kunshan and Shanghai were not on equal terms in many aspects. Kunshan was a county-level unit while Shanghai was a central administering city, operating as a provincial level unit. Furthermore, Kunshan was administered by Jiangsu; therefore, Shanghai had no direct administrative power over Kunshan. Back then, it was unusual to conduct interregional collaboration given the rigid hierarchical system under the planned economy. As new investment had to be approved by the provincial government, interregional project will have to deal with two provincial governments. At that time, there was no such official

\(^{54}\) 横向联合

\(^{55}\) 东依上海，西托三线，内联乡村
coordination mechanism that could work out which provincial government was legitimate to
give permission and take charge. Moreover, no particular incentives would drive SOEs in
Shanghai to invest trans-regionally given the SOEs were not sensitive to cost-efficiency and
market competition (Lin et al. 1998). In other words, the Shanghai side – the more
economically and politically powerful side – was not inherently motivated to invest in
Kunshan. Therefore, Kunshan was rather one-sided to promote and facilitate interregional
collaboration with Shanghai SOEs.

Elite cadres of Kunshan government, especially the then county mayor Wu Keshuan, were
the key actors in establishing linkages with Shanghai SOEs (KS-15-G). Wu was born in
Wujiang County, Suzhou. In 1955, He was admitted to Zhongnan College of Economics56,
the top institute for economics training, to study national economic planning. After
graduation, he was assigned to work for the State Planning Commission57 briefly and then
moved to the Northwestern province Gansu as central official representative. As a result of
cutting redundancy in central government, Wu returned to Suzhou to work for Kunshan
government in the early 1980s. Wu Keshuan became the county mayor of Kunshan in 1984,
the same year when the strategy of “horizontal economic linkages” was launched. The first
collaboration project initiated by Wu was to revive the Kunshan Textile Factory with
investment from Shanghai. In order to get contact with Shanghai SOEs, Wu first got in touch
with Gong Zhaoyuan and Qian Yiping, who were Kunshan-born officials working in the

56 Zhongnan College of Economics (中南财经学院) is now known as Zhongnan University of Economics and
Law (中南财经政法大学).

57 State Planning Commission (国家计划委员会) was in charge of making national economic plans within the
system of planned economy. It was discontinued in 1998 and succeeded by State Development Planning
Commission. Both were preceding agencies of State Development and Reform Commission (国家发展和改革
委员会) in the current administrative system.

185
economic departments of Shanghai government (He 2008). Gong and Qian were very keen to contribute to their hometown and facilitated the connections between two Shanghai textile SOEs and Kunshan government. However, there were still huge administrative barriers for Kunshan firms to establish formal linkages with Shanghai SOEs. Both Jiangsu and Shanghai governments refused to approve the collaboration project. Wu had to go to Beijing and mobilise his personal connections in central government. Finally, central government approved the joint venture of Shanghai and Kunshan SOEs, which was the first interregional collaboration project for both Jiangsu and Shanghai.

Given such a successful precedent of Kunshan-Shanghai collaboration, there were increasing numbers of Shanghai firms expressing the intention to invest in Kunshan. However, many of them were discouraged by the poor infrastructural conditions after visiting Kunshan. In order to solve the imminent problem of facilitating investment from Shanghai firms and to create a better investment environment, in 1985, Kunshan government initiated its own Economic Development Zone project – named as “industrial new zone”\(^{58}\) – since it was not officially authorised. Such industrial new zone would later become the key geographical and organisational carrier of attracting and facilitating external investment.

However, the Kunshan EDZ project encountered several major problems. First, it was against the regulation to establish EDZ without authorisation from central government. The leaders of Kunshan government had decided to push forward such a project by betting on their own political careers. They adopted the strategy of “making achievement before asking for authorisation”. When they had made substantial economic achievements through self-

\(^{58}\) 工业新区
initiated EDZ, they would be at an advantageous position to bargain with provincial and central government. Therefore, in the first two years of the EDZ project, its construction and operation was kept low profile and “underground”. At the same time, Kunshan officials strived to take every opportunity to win support from senior central and provincial officials. In 1986 and 1987, provincial and central government sent senior officials to inspect the EDZ project in Kunshan respectively. They were impressed by Kunshan’s achievement in attracting investment and encouraged Kunshan cadres to keep working on the EDZ project.

Second, there were severe financial constraints for Kunshan government to fund the EDZ project. Since the project was unauthorised, it was not eligible for direct subsidy from central government and borrowing loan from major banks. As a rural county in the mid-1980s, the fiscal revenue of Kunshan government was also very limited. In face of such financial constraints, Kunshan government took a pragmatic approach known as “rolling development”, which indicated that the whole development site was divided into several sections, and only when the development of one section was completed, the development of a new section would be started. At the same time, Kunshan government utilised authoritarian power to divert profits of local SOEs and TVEs to fund the EDZ project. These reluctant managers were threatened by the fact that they would be dismissed if refusing to contribute (He 2008).

Third, the EDZ project encountered resistance from local villagers, firms, and some public institutes who would be displaced because of land expropriation. Since the EDZ project was run on a limited budget, there was very small amount of compensation for these affected villagers and organisations. In this case, Kunshan government also mobilised its authoritarian power to advise them to obey the orders of the Party and succumb to collective interests. The government ordered Party members from these affected villagers and organisations to move
first in order to set an example. As a result of combining coercion and persuasion, the displacement problem was eventually solved.

It is important to point out that the development of EDZ in Kunshan was never a direct adoption of made-ready solutions. Kunshan government was very adventurous and entrepreneurial as it was not common for a county-level unit to develop an EDZ back in the mid-1980s. Though having encountered substantial constraints, the initial development of EDZ, or industrial new zone, in Kunshan had achieved great success. The number of manufacturing firms and the total industrial output grew rapidly (See Table 5.2). Due to the increasing number of new firms, the size of Kunshan EDZ increased from 3.75 km$^2$ in 1985 to 6.18 km$^2$ in 1988, and to 14 km$^2$ in 1990. At the same time, the construction of EDZ in Kunshan was very cost-effective with an average investment of 12 million yuan per km$^2$, in comparison to 120 million yuan per km$^2$ for the authorised national EDZs (He 2008).

Table 5.2 Economic statistics of EDZ (Kunshan) in early years

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of manufacturing firms</th>
<th>Total Industrial Output in KETD (million yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>10</td>
<td>148.57</td>
</tr>
<tr>
<td>1988</td>
<td>11</td>
<td>196.96</td>
</tr>
<tr>
<td>1989</td>
<td>15</td>
<td>224.07</td>
</tr>
<tr>
<td>1990</td>
<td>31</td>
<td>275.39</td>
</tr>
</tbody>
</table>

Source: Kunshan Chorography Committee (1990)

Built on the experience of attracting Shanghai companies, Kunshan government managed to attract the third-front enterprises in inland provinces. From 1960s till 1980, central government had invested over one thousand industrial projects in remote inland provinces.
(the third-front areas) like Guizhou, Sichuan and Shaanxi (Naughton 1988). Since central government then expected that major wars would break out with neighbouring countries, like Russia and Vietnam, these projects were intentionally located at inconvenient areas to avoid being attacked during wartime. In this sense, most of these projects were technology and capital intensive SOEs of strategic importance to national security.

Entering into the reform era, war threats had diminished but the backward locations continued to handicap the development of third-front SOEs. On the one hand, third-front SOEs were far away from major markets such as Shanghai and other wealthy coastal cities. They were thus in great need of moving close to major markets. On the other hand, a lot of technical and managerial talents, along with many other workers, could have been assigned to work in third-front SOEs against their own wish. They were eager to move back to more developed coastal locations with better living conditions. When Kunshan government reached out to these third-front SOEs, they were easily persuaded to invest and establish factories in Kunshan. Like Shanghai SOEs, these third-front SOEs also brought advanced production technology and high-expertise personnel to Kunshan.

Till 1990, Kunshan had developed a multi-layer, multi-type, and multi-locational network of economic linkages with a total of 341 collaborative projects. In terms of the locational attributes of collaborative projects, Shanghai firms stood out as the primary partners for economic linkages of Kunshan (see Table 5.3). Shanghai firms were not only top of the numbers of collaborative projects, but also the biggest investors for Kunshan. Out of the 12 collaborative projects with investment over 10 million yuan, 9 projects were with Shanghai firms.
Table 5.3 Locational attributes of collaboration

<table>
<thead>
<tr>
<th>Locational attributes of collaboration</th>
<th>Number of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firms within Kunshan (County level administrative territory)</td>
<td>32</td>
</tr>
<tr>
<td>Firms within Suzhou (Prefectural level administrative territory)</td>
<td>32</td>
</tr>
<tr>
<td>Firms within Jiangsu Province</td>
<td>10</td>
</tr>
<tr>
<td>With firms in Shanghai</td>
<td>242</td>
</tr>
<tr>
<td>With firms from other places</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Kunshan Chorography Committee (1990)

Joint ventures with Shanghai firms had imported substantial economic resources into Kunshan. The Shanghai side had sent experts of production technology and business management to joint ventures in Kunshan, brought in advanced mechanical equipment and shared their sales channels. Such collaboration initially took the forms of outsourcing production or sharing marketing and technological resources, and then evolved into joint ventures with large amount of investments from both sides (see Table 5.4). Therefore, joint ventures became the organisational solutions to flows and redistribution of production factors when factor market was absent. They also created interactive situations where actors from different locations can interact and learn.
The industrial sectors in Kunshan were quite diversified and different sectors had very few functional linkages with each other (see Table 5.5). The primary purposes of industrial development in Kunshan were to support agricultural production and to meet the consumption demand of local residents. Large-scale state-owned factories produced a wide range of products from simple, agricultural-related inputs such as chemical fertilizer, pesticide, building material, and textile to more complex products such as machinery, transistor, bicycle, and pharmaceutical. Small rural enterprises were involved in textile, machinery, chemical, building material, and other light industries. Since the mid-1980s, external investment had become the major force in shaping the sectoral structure of local economy in Kunshan. Investment in sectors such as machinery, automobile, and electronics had fostered the development of local supportive industries, which strengthened the local competitive advantages of facilitating future foreign investment in these sectors (Wei 2010).
Table 5.5 Number of collaboration projects by sector

<table>
<thead>
<tr>
<th>Sectors of collaboration</th>
<th>Number of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machinery</td>
<td>63</td>
</tr>
<tr>
<td>Electronics</td>
<td>28</td>
</tr>
<tr>
<td>Textile</td>
<td>60</td>
</tr>
<tr>
<td>Building material</td>
<td>11</td>
</tr>
<tr>
<td>Chemistry and Pharmacy</td>
<td>47</td>
</tr>
<tr>
<td>Light industry</td>
<td>132</td>
</tr>
</tbody>
</table>

Source: Kunshan Chorography Committee (1990)

Catching-up (early-1990s to early-2000s): foreign investment and Economic Development Zone

Although investments from both Shanghai and third-front SOEs had injected a major boost to industrialisation of Kunshan, such source of external investment became unsustainable around the late 1980s. At that time, the majority of SOEs in China were running at low efficiency and encountered serious problems. Since the early 1990s, central government had announced further reforms on SOEs, which had led to a lot of third-front SOEs, as well as many small and medium-sized SOEs in Shanghai, being closed, merged or moved (Hu 2000). In such circumstances, Kunshan government had to adjust its development strategy of ‘horizontal economic linkages’.

From the mid-1980s to 1990, although Kunshan officials had mainly targeted on external investment from Shanghai and third-front SOEs, they were also predatory to catch foreign investment as emerging opportunities. By the end of 1990, investors from Japan, America, Canada, Germany, Hong Kong, and Taiwan had made investment in Kunshan. Although foreign invested enterprises only made a small fraction of the total industrial output in
Kunshan (3.75%, see Figure 5.2), they constituted a major portion of the total industrial output of the EDZ in Kunshan (see Figure 5.3). Meanwhile, central government had also decided to push forward the strategy of export-oriented economies at an unprecedented scale (Lardy 2004). In April 1990, central government approved Pudong, a poor suburban district of Shanghai, to establish a national level Economic Development Zone to attract foreign investment. As more and more foreign investors visited Shanghai, Kunshan government sent officials out to track their whereabouts and persuade them to pay a visit to Kunshan EDZ as well. Although most of the foreign investors never heard of Kunshan before, they were directly greeted by Kunshan officials in Shanghai. As SOEs stagnated, Kunshan government gradually shifted its focus from attracting domestic SOEs to foreign investors.

![Figure 5.3 Ownership structure of industrial output in EDZ (Kunshan), 1990](source: Kunshan Chorography Committee (1990))

Since the Kunshan EDZ was unauthorised, great constraints were put on its capacity to attract foreign investment. Kunshan government cannot advertise it and attend exhibitions and trade fairs for EDZs to meet foreign investors. The Kunshan EDZ had to hand in larger portion of their revenues to higher level government which restricted its capacity of re-investing and expanding the EDZ. Meanwhile, the Kunshan EDZ could not confer the equivalent of
preferential treatments that authorised EDZ could do to foreign investors. For example, Kunshan EDZ could only offer half the reduction rate in income tax comparing to authorised EDZs. In order to enhance the competitiveness of attracting foreign investment, the top task for Kunshan government was to obtain the authorisation of national-level EDZ from central government. In the process of obtaining the authorisation, the networking and cooperation among elite officials was crucial.

In 1988, it was Wu Keshuan, again, who led the campaign. Wu first went to Nanjing to seek provincial level authorisation of the Kunshan EDZ, which was very successful. Wu then transcribed the supportive comments of central officials who visited the Kunshan EDZ before. With these two materials, Wu went to Beijing to apply for national level authorisation. Utilising his personal network in Beijing, he got contact with the head of EDZ office of the State Council, He Chunlin, who told Wu that a special meeting of the State Council had to be held to discuss the authorisation of Kunshan EDZ. However, the application was interrupted by the Tiananmen Square protest in June 1989. To avoid the application efforts going in vain, Wu got access to the Suzhou-born scholar Fei Xiaotong, who was influential in economic policy-making in small towns and rural areas. Fei was invited to visit the Kunshan EDZ in October 1989 and showed his support for the authorisation. Later, he drafted a proposal to argue for authorisation in the meetings of the National People’s Congress and wrote a letter to the reformist central official, Xi Zhongxun. Besides the efforts of Wu, the then head of Jiangsu Province, Chen Huanyou, also reported to the then Premier Li Peng and vice Premier Zhou Jiahua to win support for authorisation. After all these efforts, the State

EDZ office of State Council (国务院特区办公室) was a subdivision of State Council and in charge of management of EDZs.
Council finally authorised the Kunshan EDZ as a national level EDZ in August 1992. Since then, foreign investment in Kunshan has been growing at high speed (see Figure 5.4).

In the beginning, the host countries of FDI in Kunshan were quite diversified. The earliest foreign investors came from scattered locations such as Japan, Hong Kong, USA, Canada, Taiwan and even Denmark (KS-07-O/G).

In the decade of 1990s, Taiwan gradually became the dominant source of FDI in Kunshan (Chen et al. 2010; Yang 2009; Zhao and Zhang 2007). Taiwanese investments have four characteristics. First, Taiwanese investment tended to be huge in size. By the year 2000, the average size of Taiwanese investment was 5.75 million dollars, and there were 202 Taiwanese firms with investment over 10 million dollars, and 36 firms with investment of over 30 million dollars. Second, Taiwanese investors tended to establish wholly foreign-owned firms or hold the majority of shares of Joint Ventures. Third, Taiwanese firms tended to concentrate in technology- and capital-intensive sectors such as information technology.
(IT) and high-precision machinery. Fourth, Taiwanese firms in Kunshan were very profitable and they tend to make additional investment to augment their scale of production in Kunshan. Consequently, Kunshan also became the locality where Taiwanese investment was most concentrated. In 2000, Kunshan accounted for half of Taiwanese investment in Suzhou, a quarter of Taiwanese investment in Jiangsu, and a ninth of Taiwanese investment in the whole country (Fei 2003).

At the global level, the concentration of Taiwanese investment in Kunshan has been interpreted through the scope of strategic coupling in the Global Production Network (Yang 2009; Wei 2010). Those Taiwanese firms, which invested heavily in Kunshan, concentrated in the IT and machinery sectors. These sectors were first developed in Taiwan in the 1960s. After twenty years of development, IT and machinery industries were rather mature and entered the stage of mass production of standard products (Chaponniere and Lautier 1998). Therefore, Taiwanese firms were motivated to move to locations where labour and land costs were cheap. Kunshan perfectly suited the need of these Taiwanese firms. The IT sector, where Taiwanese investors most concentrate, has become the dominant sector in Kunshan (see Table 5.6).
Of course, many locations in China could provide cheap land and labour. It was the territorially specific investor-friendly environment that made Kunshan stand out as the acclaimed destination for Taiwanese investment. Since the mid-1980s, Kunshan government had established systemic working routines towards external investors, which featured high-profile reception hosted by senior officials and efficient execution to government commitment.

“When big investors come to visit us, our mayor will always accompany them and order us to attend to the details of food, accommodation, transport, and entertainment throughout their stay in Kunshan. Taiwanese businessmen love to sing Karaoke. We will take them to Karaoke and take care of them until 2 or 3 o’clock in the morning. We must make them happy in Kunshan.” (KS-22-G)

As a county-level city with a self-initiated EDZ, Kunshan government had more autonomy over EDZ operation because it cut the hierarchical and bureaucratic relations between the EDZ and a prefecture-level government in other EDZs. Therefore, Kunshan government was more flexible and efficient to tailor to the needs of big Taiwanese investors. Usually, big
investors would have commitment directly from the Mayor of Kunshan, who then mobilised the strong executive capacity of Kunshan government to deliver that commitment. Through this way, Kunshan government achieved good reputation among the Taiwanese investors (KS-06-F). Since the mid-1990s, Kunshan government had started to institutionalise and routinise good practices to attract Taiwanese investors. In 1998, Kunshan government set up a 24-hour service centre for foreign investors and published 28 codes of conduct to guide lower level executive officials and civil servants to improve their service to foreign investors.

While Taiwanese firms were concentrating, Kunshan government also learnt to formulate local industrial policies, focusing on industrial agglomeration (KS-15-G). In terms of industrial targeting, Kunshan government took advantage of the concentration of Taiwanese firms in electronics and machinery industries and identified them as the key sectors (Wang and Lee 2007). Meanwhile, Kunshan government paid close attention to bring down the local transaction cost through promotion of intra-industrial linkages between local firms. With a few large Taiwanese firms as the leading firms, Kunshan government specifically focused on attracting quality suppliers in the same industry, including both foreign suppliers and domestic ones. In 1996, Kunshan government set up an Exported-oriented Supplier Coordination Centre and invented the “chain-mode” strategy for attracting suppliers (KS-15-G). They firstly decomposed certain industrial chain and then targeted potential investors in each procedure of this industrial chain. Therefore, firms could source all the intermediate inputs locally and bring down their transactional costs. The concentration of firms and intra-

industrial linkages generated the agglomeration economies that attracted many small indigenous entrepreneurs to invest in Kunshan (KS-19-F).

“I used to run restaurants in Wuhan. With some friends, I came to Kunshan and started a small metal processing factory in 2005. There are a lot of businesses here. We supply parts for the Taiwanese firms in Kunshan and sometimes big firms in Shanghai. All our workers are from foreign-invested firms in Kunshan. Our chief engineer used to work in a Japanese firm. I pay higher salary and the tuition fee for his child so he came to work for a small factory like us.” (KS-19-F)

Adjustment (early 2000s to late 2000s): diversification and upgrading of FDI

However, the negative sides of heavy reliance upon Taiwanese investors were looming. First, the majority of Taiwanese firms in Kunshan were labour-intensive and consumed huge amount of local resources such as land, water, and electricity. More specifically, Kunshan government realized that the rapid growth of high-resource-consuming Taiwanese investment in the last decade had depleted local land resources. The lack of land resources would impede the attraction of higher quality investment and allowed Kunshan government much less space for macroeconomic intervention.

Second, Taiwanese firms had endogenous weakness in terms of their positions in the global production network. For example, although electronics in Taiwan played a major role in the world’s electronics industry, it did not manage to reap the monopoly profits through the mastery of core technologies in the industry. As a result, Taiwanese firms were still very sensitive to the cost of production factors (such as labour and land). Meanwhile, the concentration of investment drove up the cost of labour and land in Kunshan, which forced
many Taiwanese investors to look for other cheaper locations in Northern Jiangsu, Shandong, or even inland provinces like Henan and Chongqing.

Third, Taiwanese firms played a very limited role in stimulating development of indigenous firms in Kunshan. Taiwanese firms tended to do business only with Taiwanese suppliers. When one leading firm from Taiwan moved to Kunshan, it would bring most of its Taiwanese suppliers (KS-16-O/G). Although such practice had been essential in promoting industrial agglomeration in Kunshan, it also squeezed out the opportunity for indigenous firms to take part in the local production system. Moreover, Taiwanese firms tended to only hire Taiwanese for important technical and managerial positions (Chen 2004). This limited the possibility of technological spillover through personnel turnover.

Fourth, there were political concerns over the relations between China and Taiwan. Since China and Taiwan have dispute over the sovereignty issue, all economic and cultural ties between the two areas are subject to the state of their diplomatic relations. During the mid-1990s, there was a major contraction over economic and cultural interactions between China and Taiwan, caused by a criminal case that a group of Taiwanese tourists were murdered while travelling in Zhejiang. In 2000, the Democratic Progressive Party (DPP) became the ruling party of Taiwan, whose political agenda towards the independence of Taiwan was strongly opposed by central government of China. Therefore, the reign of DPP brought more uncertainties over the China-Taiwan relations that upset the Kunshan government (KS-16-O/G).

While Kunshan government was aware of these negative sides of heavy reliance upon Taiwanese investment, in 2002, central government also put forward an adjustment strategy named “new-mode industrialisation” in order to guide industrial development at the local
level. Such “new-mode industrialisation” strategy called for industrial development that was technologically driven, energy-efficient, environment-friendly, and human-centred. In such circumstances, the development of Kunshan entered the development stage that featured a series of adjustment strategies.

The first was the introduction and cultivation of a new industrial sector as the new carrier for investment. After internal consulting meetings with elite entrepreneurs and scientists, Kunshan government decided to promote the new panel display sector as the new key sector (KS-15-G). Main products included thin-film-transistor liquid-crystal display (TFT-LCD) panels and active matrix organic light emitting display (AMOLED) panels which were widely applied in the display screens of computers, mobile phones, and other electronic devices. Therefore, the new panel display sector was closely related to the existing agglomeration of Taiwanese manufacturers of these electronic devices. Although the display panel was one component of them, it was combined with the advanced technology that was rapidly developing. In order to attract major investors from the new panel display industry, Kunshan government set up a specific industrial park – the Optoelectronic Industrial Park – to accommodate the agglomeration of new firms (KS-15-G). In promoting this new sector, Kunshan government intentionally subsidised domestic firms to establish themselves as leading firms (see Table 5.7).
Table 5.7 Leading firms in new panel display sector featuring domestic ownership

<table>
<thead>
<tr>
<th>Leading firms of new panel display sector in Kunshan</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infovision optoelectronics Ltd.</td>
<td>China-Taiwan Joint Venture (Chinese capital holding 51% of shares)</td>
</tr>
<tr>
<td>Govision optoelectronics Ltd.</td>
<td>State-owned enterprise (owned by Kunshan government)</td>
</tr>
<tr>
<td>Beijing Oriental Electronics Ltd.</td>
<td>Public listed company (owned and operated by Chinese capital)</td>
</tr>
</tbody>
</table>

Source: official website of Kunshan optoelectronics industrial park (2015)

The second adjustment strategy was to increase the quality of investment in Kunshan. In this respect, Kunshan government raised the threshold of “investment density” to 500 thousand dollar per acre for the national level Export Processing Zone, and 500 thousand dollar per acre for the national level Economic Development Zone. At the same time, Kunshan government also made a black list of high pollution and high resource-consumption sectors. Investment from those black-listed sectors would not be approved. Furthermore, small and medium sized enterprises with advanced technology were also favoured, which were exempt from the investment intensity rules (KS-07-O/G, KS-08-O/G).

The third adjustment strategy was to shift the primary target of foreign investment from Taiwan to other developed countries, such as America, Japan, South Korea, and European countries. The diversification of FDI sources could balance the over-dependency on Taiwanese investment. To attract “non-Taiwanese” investment, Kunshan government designated country-specific preferential policies and industrial parks, such as Japan Industrial Park, Swede Industrial Park, Spain Industrial Park, and Germany Industrial Park. Among them, Germany Industrial Park is the most successful. The attraction of German investors features the networking of Kunshan government officials and German business representatives.
“We visited consulates of many European countries in Shanghai and the German were the most earnest. One of the staff in German consulate was a senior officer of the German chamber of commerce. He becomes a good friend with us and introduces many German firms to invest in Kunshan. Now, he is running a consulting business that serves German and other European firms in Kunshan.”

(KS-16-O/G)

This adjustment stage has sustained economic growth through promoting industrial agglomeration in new sectors and balanced the over-dependency over Taiwanese investment with more domestic sources and investment from other developed countries. However, Kunshan’s economy was still very much investment-driven.

**Restructuring (late 2000s until present): technological innovation and attraction of talents**

Although the massive inflows of FDI boosted the rapid GDP growth in Kunshan, the over-reliance upon FDI gradually became a concern for Kunshan government (see Table 5.8). FDI in Kunshan was mostly concentrated in exported-oriented manufacturing. Therefore, the performance of export trade became the barometer of local economy in Kunshan. According to official statistics, FDI-related export kept a double-digit rate of growth for nearly two decades and constituted the major contributor of GDP growth (see Table 5.9). As a result, the fluctuation of export market has always existed as a major source of uncertainty in Kunshan’s local economy.
Table 5.8 Ownership structure of industry in Kunshan

<table>
<thead>
<tr>
<th>Ownership Type</th>
<th>Ratios of numbers of enterprises by ownership</th>
<th>Ratios of industrial output by ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
<td>2010</td>
</tr>
<tr>
<td>SOEs</td>
<td>0.55%</td>
<td>0.30%</td>
</tr>
<tr>
<td>Collective Enterprises</td>
<td>2.67%</td>
<td>1.36%</td>
</tr>
<tr>
<td>Foreign Invested Enterprises</td>
<td>78.95%</td>
<td>68.01%</td>
</tr>
<tr>
<td>Domestic Private enterprises</td>
<td>17.83%</td>
<td>30.33%</td>
</tr>
</tbody>
</table>

Source: the Kunshan 12th Five-Year Plan on industrial development (2010)

Table 5.9 Ratios of Export growth to GDP growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio of export growth to GDP growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>27.9%</td>
</tr>
<tr>
<td>2005</td>
<td>42.9%</td>
</tr>
<tr>
<td>2007</td>
<td>45.3%</td>
</tr>
<tr>
<td>2008</td>
<td>50.9%</td>
</tr>
</tbody>
</table>

Source: Kunshan Statistic Yearbook (various years)

The event that pushed Kunshan government to formulate systematic restructuring strategies was the global financial crisis around 2007 and 2008. This wave of financial crisis seriously struck major developed economies such as America, Japan, and many western European countries. As a result, both the capacities to invest and consume of these advanced economies have been severely reduced. While addressing the need for restructuring, the Kunshan 12th
Five-Year Plan read: “the world economy is slowly recovering [from the aftermath of financial crisis]. Meanwhile, frictions over exchange rates and international trade protectionism have been growing. As a result, it is more difficult to keep economic growth at high speed. The resource-based development mode is under great challenge. As competitions over markets, resources, talents, and technology have been increasingly fierce, the pressures for economic restructuring are immense”.

At the same time, national strategy and scheme was also a major factor that facilitated the making of restructuring strategy in Kunshan. The Hu-Wen administration developed the conception of “scientific development view” to promote coordinated development in various aspects of Chinese economy. The national-level 12th Five-Year Plan emphasised that manufacturing would continue to be the main pillar of China’s economy. However, its competitiveness has to be enhanced by promoting indigenous technological innovation. Central government published guidance policies in 2012 to deepen the reforms of science and technology system and to construct innovation systems at both national and local level\(^6\).

Taking all these external and internal factors into account, the restructuring strategy of Kunshan featured a shift from investment-driven economy to innovation-driven economy and

\(^6\) See Guideline policies on deepening the institutional reforms of science and technology system and constructing of national innovation system, State Council, 2012 (关于深化科技体制改革加快国家创新体系建设的意见，国务院，2012)
the shift from attracting foreign investors to attracting technological and entrepreneurial talents\textsuperscript{62}.

In the cognitive sphere, the interpretation of economic competitiveness employed by Kunshan government changed from that based on external investment to that based on technological innovation. Kunshan government expected that an innovation-driven economy would fundamentally and systematically solve all the development problems. First of all, indigenous innovation would stimulate local entrepreneurship so as to balance the over-dependence upon external investment. At the same time, technological innovation would enable local industry to master core technology that generated higher added-value and created a monopoly market to save Kunshan from low-end competition over land and labour costs. Moreover, innovative activities depended upon human talents and knowledge that would not impose much pressure on the constrained resource and environmental conditions in Kunshan.

In order to promote innovation-driven economy, Kunshan government reformulated industrial policies to focus on two strategic tasks: to enhance the indigenous capacity of technological innovation in existing key sectors, and to cultivate the agglomeration of emerging hi-tech sectors. In terms of promotion of emerging sectors, Kunshan government identified six sectors, closely following those emerging sectors identified at the national level industrial policy (see Table 5.10).

\textsuperscript{62} See \textit{Guides on promoting industrial upgrading and economic restructuring}, Kunshan government, 2014 (关于进一步加快工业经济转型发展的若干意见，昆山市政府，2014)
Table 5.10 Targeted strategic emerging sectors by Kunshan government and central government

<table>
<thead>
<tr>
<th>Kunshan level(^{63})</th>
<th>National level(^{64})</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New material, new energy, bio-tech, clean-tech, new medicine, new display, Internet of Things</strong></td>
<td>New material, new energy, bio-tech, clean-tech, new generation information technology, advanced equipment manufacture, and electric car</td>
</tr>
</tbody>
</table>

Source: compiled by author

These emerging industries have been considered as opportunities to achieve leap-forward development. For example, Kunshan government made a highly speculative decision to promote the application of siRNA technology in developing new medicine. Across the world, the commercialisation of siRNA technology is only starting and no particular countries or regions have established a leading role in this sector. Kunshan government expected to achieve such leading status by investing in this technology intensively.

“The siRNA biotechnology project is to race to the top of the mountain before others, so Kunshan will be the centre of world siRNA industry.” (KS-01-O)

The reconceptualisation of economic dynamics towards technological innovation has led Kunshan government to redefine “talents” as the key economic assets that create the competitive advantage in innovation-driven economy. The 12\(^{th}\) FYP of Kunshan stated, “Technological innovation will create great opportunity for latecomer countries and regions to achieve leap-forward development. Talent, as the core element in technological innovation, will be key factor in this new round of development”. A propagandistic slogan for human

\(^{63}\) Compiled from KSITRI brochure, sectors in bold are that overlap with national level targeted sectors

\(^{64}\) The decisions on cultivation and development of strategic emerging industries, State Council, 2010 (国务院关于加快培育和发展战略性新兴产业的决定)
resource strategy of Kunshan was formulated as “gathering top talents and fostering an intellectual highland”\textsuperscript{65}.

By the year 2010, a rather mature labour market had already formed in Kunshan due to the success of FDI-led development. There have been over 217 thousand highly-educated workers in the labour forces (with college diploma and above) in Kunshan. Such number has topped the county-level cities in Jiangsu (see Table 5.11).

Table 5.11 Number of talents in major county-level cities in Jiangsu

<table>
<thead>
<tr>
<th>Major county-level cities in Jiangsu</th>
<th>Number of talents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kunshan</td>
<td>217,667</td>
</tr>
<tr>
<td>Changshu</td>
<td>142,700</td>
</tr>
<tr>
<td>Wujiang</td>
<td>130,172</td>
</tr>
<tr>
<td>Zhangjiagang</td>
<td>125,145</td>
</tr>
<tr>
<td>Taicang</td>
<td>88,521</td>
</tr>
</tbody>
</table>

Source: the Kunshan 12\textsuperscript{th} Five-Year Plan on human resource development (2011)

However, FDI-led development has also created several structural constraints for the labour market to adapt to the restructuring strategy. In the specific 12\textsuperscript{th} FYP on human resource

\textsuperscript{65} 汇聚高端人才，打造智慧高地
development, Kunshan government summarised the challenges for local human resource development into four aspects.\(^\text{66}\)

First, technological and entrepreneurial talents are under-supplied in Kunshan. FDI-led development in the past decades has formed a rather accomplished labour pool of skilled and disciplined manufacture workers, experienced managers, and professional engineers and technicians. However, restructuring strategy demands talents to participate in high value-added activities such as R&D and technological start-up. Therefore, there is an under-supply of talents in local labour market for these high value-added activities.

Second, there is fierce inter-urban competition over attraction of talents, especially in the emerging sectors. As emerging sectors tend to have little industrial relatedness to existing sectors, the location choice for talents in emerging sector is very broad. Therefore, the competition over attraction of talents becomes a bidding contest over preferential treatments centred on monetary rewards, in the forms of project initiation fund, subsidies for resettlement, waiver of certain administrative fees etc. The result is that such competition reaches the equilibrium that those preferential conditions are almost undifferentiated from each other (KS-22-G).

“All neighbouring cities are spending big money on attracting talents. A top talent can go to Wuxi, Changzhou, and Suzhou, let alone Shanghai. The competition is fierce!” (KS-22-G)

---

\(^{66}\) See the 12\(^{\text{th}}\) FYP for human resource development in Kunshan, Kunshan government, 2011 (昆山市人才队伍 建设“十二五”规划，昆山市政府，2011)
Third, it is difficult to establish criteria which can be effectively used to evaluate and define whether a candidate is a “talent” or not. The current evaluating criteria of talents have been highly biased towards their academic achievements, measured through education qualifications, publications, awards, and experiences of undertaking important projects. Various national or provincial talents schemes, such as the National Thousand Talents Plan, have been adopted by local government as shortcuts as they can directly target talents in those schemes. The problem is that academic excellence cannot easily translate into practical improvements in the industrial world. There is a huge gap between technological innovation in a laboratory and economically viable application in an industrial enterprise. Kunshan government has been aware that those attracted talents have not generated substantial dynamics for local industrial restructuring. In this respect, there is a need to develop a more comprehensive evaluation system for “talents” and push forward an effective mechanism for transfer of technological innovation from laboratory to industry.

Fourth, local firms are not effective in cultivating human resource in technological innovation. Firms are supposed to be the organisation where technology is best combined with practical concerns over competitive market. However, local firms have not devoted much of their resources into technological innovation. The lack of engagement in technological innovation is closely related to the mode of investment-driven development in Kunshan. On the one hand, multinational corporations that made overseas investment would retain their R&D departments in the home country. Foreign investment in Kunshan mainly concentrated in

---

67 National Thousand Talents Plan (国家千人计划) was introduced in 2008 by central government, which aimed to attract overseas Chinese talents to work in China. These talents involved professors in prestigious foreign universities, senior technological or management officers in multinational companies, and entrepreneurs of technological start-ups.
manufacturing that does not involve R&D activities. On the other hand, the high threshold for investment density in Kunshan has squeezed away those small and medium size technological firms (KS-01-O).

To address the structural under-supply of technological work forces, Kunshan government introduced a systemic human resource strategy, including talent recruitment, platform building, and integration of technological resource with local industry.

Kunshan set up explicit targets in talent recruitment that detailed the numbers of talents with specific qualifications and in specific sectors (see Table 5.12 and Table 5.13).

<table>
<thead>
<tr>
<th>Qualification of Talents</th>
<th>Targeted number</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Thousand Talents Scheme</td>
<td>50</td>
</tr>
<tr>
<td>High level innovative and entrepreneurial talents</td>
<td>100</td>
</tr>
<tr>
<td>Returning Overseas talents</td>
<td>1,000</td>
</tr>
<tr>
<td>Technical and managerial talents</td>
<td>10,000</td>
</tr>
<tr>
<td>Graduates with Bachelor degree or above</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Source: the Kunshan 12th Five-Year Plan on human resource development
Table 5.13 Targets of talents attraction for important sectors

<table>
<thead>
<tr>
<th>Industrial sectors</th>
<th>Targeted number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>18,000</td>
</tr>
<tr>
<td>Precision Machinery</td>
<td>10,000</td>
</tr>
<tr>
<td>Display</td>
<td>8,000</td>
</tr>
<tr>
<td>New Energy</td>
<td>3,000</td>
</tr>
<tr>
<td>New Material</td>
<td>15,000</td>
</tr>
<tr>
<td>Medicine and Bio-tech</td>
<td>8,000</td>
</tr>
<tr>
<td>Clean-tech</td>
<td>7,000</td>
</tr>
<tr>
<td>Software and outsourcing</td>
<td>18,000</td>
</tr>
<tr>
<td>Internet of Things</td>
<td>4,000</td>
</tr>
<tr>
<td>Financing and insurance</td>
<td>2,000</td>
</tr>
<tr>
<td>Culture and Tourism</td>
<td>2,000</td>
</tr>
</tbody>
</table>

Source: the Kunshan 12th Five-Year Plan on human resource development

The nature of such quantitative target made it easy to be divided into sub-targets and executed by various subordinating development zones and township-level governments (KS-22-G). Though such explicit target could effectively synchronise the action of different levels of executive staff within the administrative system, it also led to biased perception of talents.

“We want talents with Doctoral Degree from foreign universities. Actually, most of them were not ready or capable to start business in China. Some indigenous talents are better. But we will take the overseas talents because we have to accomplish the tasks from the above.” (KS-18-O/G)
In face of fierce inter-urban competition over talents, talent recruitment was not an easy job. First, Kunshan government had to match the standard of preferential policies and treatments with other cities and regions. For those official recognised talents, they would be provided with enabling working conditions and special living benefits. The former included a one-off initiation fund of no less than 1 million yuan, office space no less than 100 m$^2$ with 3-year rent waiver, and other services such as venture investment and loan guarantee. The latter included monetary benefits such as monthly stipend, accommodation subsidy, and training subsidy (see Table 5.14).

Table 5.14 Living costs subsidies for talents in Kunshan

<table>
<thead>
<tr>
<th>Categories</th>
<th>Amount of Monetary Rewards (Chinese Yuan)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly stipend</td>
<td>3,000 per month</td>
<td>100 beneficiaries/year</td>
</tr>
<tr>
<td></td>
<td>2,000 per month</td>
<td>200 beneficiaries/year</td>
</tr>
<tr>
<td></td>
<td>1,000 per month</td>
<td>500 beneficiaries/year</td>
</tr>
<tr>
<td>Accommodation subsidy</td>
<td>1 million subsidies for purchasing a house (or waiver of 3-year rent of a 100m$^2$ apartment)</td>
<td>10 beneficiaries/year</td>
</tr>
<tr>
<td></td>
<td>500 thousand subsidies for purchasing a house (or waiver of 3-year rent of a 70m$^2$ apartment)</td>
<td>30 beneficiaries/year (or 100 for renting)</td>
</tr>
<tr>
<td></td>
<td>100 thousand subsidies for purchasing a house (or 50% waiver of 3-year rent of a 50m$^2$ apartment)</td>
<td>60 beneficiaries/year (or 700 for renting)</td>
</tr>
<tr>
<td>training subsidy</td>
<td>Up to 20 (50, 100) thousand for training session within one month (three, six months)</td>
<td>200 (50, 10) beneficiaries/year</td>
</tr>
<tr>
<td></td>
<td>Up to 50 thousand for attending academic conferences</td>
<td>50 beneficiaries/year</td>
</tr>
<tr>
<td></td>
<td>1-4 thousand per person for training organisations</td>
<td>Training organisations confirmed by Kunshan government</td>
</tr>
</tbody>
</table>

Source: the Kunshan 12th FYP on human resource development (2011)
Based on these preferential policies, Kunshan government also designed a set of proactive strategies that allowed Kunshan officials to interact with talents more directly. In this respect, Kunshan government has been focusing on institutional building of an information network of talents. First, Kunshan government strengthened the connections with domestic and foreign universities, research institutes and other knowledge-intensive organisations (such as think tanks and consultancies) to share the information on technological talents. Second, it mobilised intermediate organisations and groups such as Federation of Returned Overseas Chinese\textsuperscript{68}, Kunshan branches of alumni association of top universities, and other clubs and groups of returned overseas talents. Third, it was to establish overseas service platforms for promotion of Kunshan as destination for investment and start-ups. The Kunshan government held “Kunshan Day” events in important foreign cities such as Los Angeles, Paris and London. Fourth, it was to create flexible mechanisms for the entrance and exit of talents. For example, work stations of Academicians and postdoctoral researchers were established as the main channels for entrance and exit of talents. By creating such an information network of talents, Kunshan government expected that they could be the first-movers in access of talents. Such network based on interpersonal relations would also promote Kunshan through demonstration and reputation effects (KS-22-G).

With the recruited talents, a key challenge for Kunshan government was how to effectively engage them in local innovative and entrepreneurial activities (KS-01-O). Therefore, there was a need to improve territorial conditions to facilitate those essential “transformation” processes. In this respect, Kunshan government made comprehensive restructuring strategies...

\textsuperscript{68}中华人民共和国华侨联合会
that concerned both hard and soft infrastructures of innovation-driven economy. In general, these strategies cover three main areas: physical and institutional carriers of innovation, industrial services, and comprehensive urban development.

First, Kunshan government aimed to construct a local innovation system that engaged the attracted talents in technological innovation activities. From a “people-based” viewpoint, Kunshan government expected that the construction of innovation system would facilitate the ideal processes that “the attraction of one highly capable talent will bring in a research and development team, upon which a technological enterprise will be established; and eventually a specialised industry will be fostered and agglomerated locally”\(^{69}\).

The policy term “carrier” (载体\(^{70}\)) became a central concept in the construction of local innovation system in Kunshan. “Carrier” indicates an ensemble of organisations and physical space that support innovative activities. On the organisational side of carrier, in 2008, Kunshan government established the Kunshan Industrial Technology Research Institute (KSITRI) as the “headquarter” of a set of innovation-related organisations. On the physical side of carrier, Kunshan government established various venture parks and incubation centres to provide physical sites for innovation activities. More explicitly, the development of carriers in Kunshan was structured on the system of “1 research institute, 3 technological parks, and 10 specialised industrial bases”\(^{71}\). The “1 research institute” was the KSITRI; the “3 technological parks” includes Tus Technological Park (in collaboration with Tsinghua University), Business Park for Returned Overseas Scholars, and Software Technological Park; and the “10 industrial bases” include that of Display industry, Sensor industry, Mould
industry, Software industry, Robot industry, Specialised Equipment industry, and New Energy industry etc.

The KSITRI was tasked with functions of research, technological transfer, professional training, and other knowledge-intensive services. Therefore, a set of specialised organisations were established and affiliated under the KSITRI (see Table 5.15). These specialised organisations included research institutes, public technical service platforms, and policy consultancies. Those recruited talents were channelled into related organisations so as to apply their expertise. The industrial and technological parks were tasked to provide office, research, and production spaces to organisations, laboratories, or startups and enterprises.

“My PhD supervisor is the top scientist in automation and robots from a university in Beijing. He signed a contract with Kunshan government to establish a laboratory here. I was sent here to run this laboratory. Kunshan government provides really good infrastructure. The size of laboratory and office room is much bigger than that in Beijing.” (KS-03-O)

Kunshan, as a newly developed city from a rural county, had a very weak institutional foundation of universities and research institutes. Therefore, it is necessary to “import” external research capacities. In this light, Kunshan government has collaborated with top universities and research institutes to set up new carriers, such as Tsinghua University (Kunshan) Science Park, Peking University (Kunshan) Science Park, Nanjing University (Kunshan) Innovation Institute; Kunshan branch of Institute of Microelectronics of Chinese Academy of Sciences; Xidian (Xi’an Electronic Science and Technology University) (Kunshan) Innovation Institute.
“Kunshan government wants to use the reputation of Tsinghua University to attract talents. Moreover, Tsinghua University would send postgraduate students to do fieldwork or internship in Kunshan. Some of them decided to start a business here as costs are much lower than in Beijing” (KS-13-O/F).

The adoption of technological and venture parks as physical carriers rather than other options have both theoretical and practical concerns. Kunshan government expected that technological and venture parks would facilitate knowledge spillovers through co-location of various research institutes, technical service platforms, and start-ups, as suggested by the geographical features of innovative clusters. At the same time, the development of technological parks in China involved land leasing that helped to finance these projects. Under the current land regulation, part of the land of the proposed technological parks is allowed to be sold to private developers for commercial residential real estate. Given China’s booming real estate market, such commercial projects are very profitable and provide a major financial vehicle for development of technological parks (KS-12-O/F).
Table 5.15 List of affiliated organisations of KSITRI

<table>
<thead>
<tr>
<th>Categories</th>
<th>Affiliated organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research institutes</td>
<td>siRNA biotechnology Research institute</td>
</tr>
<tr>
<td></td>
<td>New Panel Display Technology Centre</td>
</tr>
<tr>
<td></td>
<td>Intelligent Robot Engineering Research Institute</td>
</tr>
<tr>
<td></td>
<td>Industrial Robot Research Institute</td>
</tr>
<tr>
<td></td>
<td>Sense Technology Research Institute</td>
</tr>
<tr>
<td>Public technical service</td>
<td>Key laboratory of National Staple Goods</td>
</tr>
<tr>
<td>platform</td>
<td>Public technical service centre of Mould Industry in Kunshan</td>
</tr>
<tr>
<td></td>
<td>Public service platform for informatisation of small and medium size enterprises in Suzhou</td>
</tr>
<tr>
<td></td>
<td>Public service platform for tele-communication and integrated circuits industry in Kunshan</td>
</tr>
<tr>
<td>Policy consultancy</td>
<td>Kunshan Industrial Innovation Institute</td>
</tr>
</tbody>
</table>

Source: Brochure of KSITRI (2010)

The second component of comprehensive restructuring was the promotion of the industrial service sectors. Kunshan government has used Singapore’s development experiences as benchmarks to diagnose potential problems in the local economy. Through comparison with sectoral structure of Singapore, Kunshan government has identified that the portion of industrial output from the service sector was too small compared to the dominant manufacturing sector. Based on the studies of Singaporean experiences, Kunshan government stated that manufacturing would undergo deeper division of labour and specialisation as it

---

went to further ends of the industrial chain – namely, R&D, product design, and marketing etc. As the application of standardised technology in manufacturing sector would eventually lead to relocation to localities with cheaper land and labour, only core functions such as headquarter, specialised R&D would remain local. Industrial services sectors, such as export and import trade, marketing, finance, logistic, accounting, legal service, insurance, consultancy, currency exchange, and risk management, would be essential for development of these core functions. In this respect, Kunshan government established Huaqiao international business district to promote the industrial service sectors, focusing on financial services outsourcing, logistics, trade and commerce services, and regional headquarters.

The third component of comprehensive restructuring concerned the general urban development. Kunshan government learnt from the lesson of Dongguan’s development experiences. Although Dongguan achieved high level of industrialisation in a short period of time, its urban environment, in terms of infrastructure, cultural and entertainment amenities, and urban landscape, greatly lagged behind. The unappealing urban environment became a major constraint for Dongguan to attract high level talents and emerging industries. Therefore, in the comprehensive restructuring strategy, Kunshan government pushed forward the integrated development of “new city, new industries, and new talents”. Kunshan government invested heavily on urban infrastructure and amenities, such as shopping centres, sports stadium, libraries, concert halls etc. At the same time, Kunshan government increased the expenditure on public services, such as education, public health, and social welfare.

**Conclusions**

In summary, the economic linkages of Kunshan have featured distinctive patterns in different development stages. In the initial industrialisation stage, Kunshan was challenged to
industrialise an agricultural economy with weak industrial basis. Elite officials in Kunshan government devised strategy to attract investment from Shanghai SOEs by taking advantage of its geographical proximity to Shanghai. In doing so, Kunshan government broke the formal rules by initiating the first inter-provincial investment links and establishing a self-funded EDZ. External investment from SOEs in Shanghai and third-front areas became the key driver of development at this stage.

The catching-up stage featured the large flows of FDI and formation of industrial agglomeration in Kunshan. As Chinese SOEs lost momentum, Kunshan government shifted the target of investment source from domestic firms to foreign ones. In this stage, Taiwanese firms became the dominant investors and facilitated the agglomeration of IT, machinery, and metal processing sectors in Kunshan. However, to counter the over-dependency upon Taiwanese investment, the adjustment stage featured diversification of external investment sources, which channelled more domestic investment and investment from western countries into Kunshan.

The latest restructuring stage was to construct an innovation-driven economy in Kunshan to counteract all the problems caused by the prevailing model of investment-driven economy. Kunshan government has invested heavily to attract talents from all over the world and established collaborative linkages with prestigious universities and research institutes to enhance indigenous innovation capacity.

Through all the development stages, Kunshan government and elite officials have been the key actors in shaping the economic linkages of Kunshan, deploying their development vision and strong executive capacity. External sources have always been essential, whether as sources of investment or sources of talents.
Chapter 6 The Economic Linkages of Small Towns

(2): learning-based development in Shunde

This chapter continues to analyse the empirical findings on economic linkages of small towns, but for the case study of Shunde. This chapter takes the same conceptual approach of development stages to do the analysis as explained at the beginning of chapter 5.

Regional Contexts of Shunde: pioneering spirits in Guangdong

Historically, Guangdong, locating at the south and far from the capital, is at the periphery of political power. Usually, local officials of Guangdong were less likely to get promoted to the high-level positions in central government. Therefore, government authorities in Guangdong are not keen to earn political patronage from the centre. Many studies have affirmed that Guangdong’s distance from central power has led to a rather relaxed political atmosphere in local governance (Gu et al. 2001). Guangdong is viewed as an extreme example of an untamed local government that often ignores central government instructions (Cai and Treisman 2006). At the same time, the grass-root communities, bounded by kinship ties, are very strong. Even though the communist government during the Maoist era was very successful in implantation of party cadres into local governance structure, it did not break up these grass-root communities. Apart from the values of communist ideology, traditional values that prioritize family members and wealth are largely preserved.

Guangdong is one of the most proactive provinces in terms of international interactions (Vogel 1990). Firstly, Guangdong has had a long history of international trade since ancient times. Even though the central government of China during the Qing dynasty employed a
close-door policy which closed most foreign-trade ports during the 1750s, Guangzhou, the capital of Guangdong, remained the only authorised port for international trade. Secondly, Guangdong is famous for its intricate relations with huge number of overseas Chinese (Hsing 1996). Throughout China’s long history, Guangdong, along with another coastal province Fujian, has been the biggest exporter of emigrants. These emigrants have landed at different locations all over the world, especially in Southeast Asia and North America. In foreign countries, they normally made a living by setting up their own businesses rather than being employed by the native people. During the Second World War and the civil war between the 1930s and the 1940s, many rich businessmen in Guangdong fled to Hong Kong. Rather than being pushed out by hard lives, these businessmen thought of moving out as a temporary solution. These fleeing businessmen were more attached to their homeland for their economic possession as well as kinship and social ties. Culturally, Guangdong people are characterized as shrewd, calculative, hard-working, and materialistic, but always keeping a low profile. Even though they are very rich, they will not dress fancy clothes and drive fancy cars to show off their wealth.

These historical and cultural characteristics of Guangdong have great effects on Guangdong’s development in the reform era. Guangdong has been recognized as the pioneer of China’s marketization reform, who is always a step ahead of the rest of the country (Vogel 1990). First, Guangdong is one of the most active provinces in pushing forward industrialisation and marketization. Due to the constraints of the natural environment, there is not enough arable land for the population to all participate in food production. As a result, side production and other business activities have been active in rural areas. Such activities were restricted as they were seen as a violation of the communist ideology. However, as local governance in rural Guangdong was less politicalized than Jiangsu, there were more local officials and business
elites in Guangdong who dare to trespass the regulations. Consequently, they allowed some private economic activities took place in local areas way before the bans were officially abolished. When signals of marketization reform were released from central government, local businessmen were ready to carry out business activities. This is quite different from situations in Jiangsu, as rural reforms in Guangdong were rolled out in a more bottom-up fashion rather than having local implementation under higher-level directions. Studies of China’s rural reform tend to emphasize on the importance of local initiatives as the drivers and dynamics of reform (Oi 1997). The flaw of this idea is that it does not specify the key actors of these local initiatives: local initiatives could be directed by local authorities conforming to the authoritarian instructions; but they could also be driven by civil communities such as businessmen, entrepreneurs, and intellectuals. Guangdong is more akin to the latter case.

Guangdong has always been the base of reformist forces. When central government decided to set up Special Economic Zones (SEZs), Guangdong was the top choice. In the end, three of four Special Economic Zones were located in Guangdong, namely Shenzhen, Zhuhai, and Shantou, with Xiamen in Fujian Province. Apart from the proximity to Hong Kong and the dense international connections, the political atmosphere was also essential. Around that time, Cadres in Guangdong were praised as not only open-minded and adventurous, but also pragmatic and hardworking (Cai and Treisman 2006). While the political conditions were not stable, it was always dangerous for cadres who could easily or unintentionally “go too far”. Therefore, the risk-taking mentality of local cadres was very important at the early stage of the reform. In this light, Guangdong cadres were very different from the Jiangsu ones. Guangdong cadres tended to allow more flexibility for grass-root initiatives, while their Jiangsu counterparts were more conservative and orthodox in terms of policy implementation.
Guangdong was also the province that showed support to Deng’s agenda of deepening reform during the political turmoil around 1989 (Zhao 1993). As the stops of Deng’s Southern Tour were strategically and politically determined, it was symbolically significant for Shenzhen to be the first stop. Deng praised the achievement of economic development in Shenzhen and encouraged local cadres to continue their work on ongoing reform. Since then, Shenzhen has been symbolised as the “flag of reform” (O’Donnell 1999). New leaders needed to pay a visit to Shenzhen shortly after appointment to show their endorsement in marketization reform and to boost confidence of private and foreign investors.

The well-known stories of development in the Pearl River Delta (PRD) were characterised by foreign investors from Hong Kong. However, the relationships between Hong Kong and the PRD were much more sophisticated than the sheer capital flows. As mentioned before, Hong Kong hosted a lot of entrepreneurs and businessmen who left their homes in Guangdong to escape from the wars. When the political conditions became stable, they were keen to return to their homeland and made investment there. Hong Kong is also a window for people in Guangdong to look at the world. Commodities from Hong Kong kept flowing into Guangdong both legally and illegally. For manufacturers, they provided the prototypes for rear-engineering and imitation.

The structural constraints of Guangdong have featured pioneering and rule-breaking attitudes and practices incubated within the grass-root communities. There are three key structural characteristics. First, local cadres and elites in Guangdong tend to think of collective interests within kinship or neighbourhood rather than individual benefits. Their embeddedness within local social network has structured the value system that prioritizes collective interests of families, relatives, and local communities. Second, the initial rule-breaking and risk-taking activities were rewarded with positive feedbacks, which encouraged further rule-breaking and
risk-taking activities for local actors. Thus, Guangdong people admire those who are adventurous and dare to be “the first one to eat crab”. Third, Guangdong has unparalleled advantage of grass-root level foreign connections. On the one hand, the wide-spread network of overseas Chinese can provide channels for foreign interaction at the grass-root level; on the other hand, the proximity with advanced economies such as Hong Kong and the Special Economic Zones (especially Shenzhen) can provide various unofficial ways of getting external information, such as “illegal” books, radio and TV programs from Hong Kong.

The Economic Linkages of Shunde

Shunde was one of the four “little tigers” in Guangdong during the 1980s and 1990s. Shunde was ranked the most developed county-level unit in terms of the size of total GDP during the decade of mid-1980s to mid-1990s, before taken over by Kunshan. Although Shunde eventually lost the race of economic growth to many county-level counterparts, especially those in Southern Jiangsu, it remains to be one of the most economically competent county-level units in China (Rao 2014). More importantly, the development experiences of Shunde are especially valuable as Shunde stands out as one of the rare cases of local development driven by indigenous firms.

This section identifies four problem-solving stages in the development trajectory of Shunde. The first stage concerned liberating the economy during the mid-1970s to late-1980s. As the stiff systems of planned economy severely suppressed economic vitality, the challenge to liberate the economy mainly dealt with restoring non-agricultural production and commodity market. The second stage was about modernising the economy, which indicated the institutional building towards a more matured market economy. At this stage, Shunde undertook the privatisation reform of local collective-owned firms and a series of reforms on
local administration system that reduced government intervention. The third stage concerned the challenge to reboot the economy after encountering slow growth. This stage of problem-solving showed a reorientation of the government’s role in the economy by developing government-firm partnerships and creating the regional brand of Shunde products. The final stage, the current stage, is about restructuring the economy, which refers to installing the dynamics for technological innovation and promotion of emerging industries.

**Liberating the economy (mid-1970s to late-1980s): industrialisation and TVE development**

If Guangdong was the spearhead of China’s economic reform, then Shunde was the spearhead of Guangdong’s reform. Around the mid-1970s, the ideological struggles within central government started to settle down. Both central and local government began to reorient their priority towards economic development. At the same time, the living standards of ordinary people were so low that they were eager to find ways to increase their personal revenue. This general condition could be also applied to Shunde in the mid-1970s. However, Shunde was more prepared than other localities to meet the challenge of liberating the economy.

Historically, Shunde had a strong tradition of commercialism. Shunde was famous for both the production and trade of quality silk. Since the late Qing dynasty, Shunde had already established stable domestic and foreign trade linkages. Around the mid-1970s, Shunde developed the Commune-Brigade Enterprises (CBEs) which produced agricultural tools and, interestingly, electric fans. Electric fan was a popular commodity in China due to the hot summer. The electric fan industry was inspired by Shunde’s rich, modern, and capitalist neighbour Hong Kong. Local residents smuggled these electric gadgets through their visits to
Hong Kong relatives. While local residents enjoyed the artificial breeze in the hot summer, Shunde businessmen were surprised by how easy an electric fan could be manufactured. Therefore, they re-engineered the Hong Kong products and started to produce them in Shunde (SD-22-O). However, the development dynamics of rural industry in Shunde were suppressed by the planned economy and the communist ideology.

The political signal of relaxing ideological control from central government in the eventful year 1978 did serve as the initial wake-up call to local government. Around the late-1970s, local governments of Shunde and other neighbouring counties published a series of documents stating the pressing needs to develop local economy and to increase the income of local residents\(^\text{73}\) (Ding 2010). There was a general consensus among local leaders that to liberate the thoughts was the precondition of liberating the economy\(^\text{74}\). The “liberal thoughts” indicated the vision and courage of carrying out market-oriented activities. The then head of Shunde County, Li Ziliu, set himself up as a pioneer of liberating thoughts (Rao 2014). He did two things that were of great symbolic significance. The first thing was to resume the dragon-boat racing, which had been a major event to celebrate a traditional festival but suspended under the communist reign. The dragon-boat racing that year turned out to be a sensational event that involved almost every Shunde resident. This greatly encouraged an

\(^{73}\) Such as *Enhancing the leadership, mobilising the party, and promoting CBEs*, Zhongshan county government, 1979 (加强领导，全动员，大办社队企业，中山县政府，1979); *Adjusting the proportion and promoting the growth of CBE*, Shunde county government, 1979 (调整社队企业比重，加快队办企业的 发展，顺德县政府，1979); *Promoting assembly manufacturing, developing collective economy, and increasing the income*, Nanhai county government, 1979 (积极开展加工装配业务，壮大集体经济，增加社 员收入，南海县政府，1979)

\(^{74}\) In 1980, Foshan government organised a meeting for subordinating counties. This meeting firmly stated that “to be rich is the demand of the party and the people” and “to make rural areas rich is to protect socialism” (Ding 2010).
expectation of relaxed political atmosphere and the participation of all kinds of economic activities. The second thing Li did was to actively contact overseas Shunde-born businessmen, which at the time was still seen as politically sensitive moves of getting too close to “hostile capitalist forces”. Though Li’s initial contacts only brought in philanthropy money for local schools, they did help to wipe off the ideological concerns to a certain degree that encouraged wider interactions between local people and overseas Chinese businessmen.

As economic growth became the top priority, Shunde’s development adopted industrialisation as the overarching strategy and published a document that aimed to promote the CBE industry. The initial solution was to develop assembly industry by facilitating foreign investment from overseas Shunde-born businessmen. However, Shunde did not adopt the industrialisation model that was heavily dependent upon foreign investments and foreign markets. This had to do with the local industrial basis of CBE sector and the local products - electric fans. Along with other small, cheap household electric equipment, electric fans had a large and under-supply domestic market. Local cadres that ran the CBEs foresaw the market potential of electric fans and other small household goods and set the CBE sector up for rapid expansion, which was later termed as the TVE (Township and Village Enterprise) sector.

In this respect, Shunde government set up the “three priorities” (san ge wei zhu) strategy to boost the local economy through three key drivers: state- and collective-own economy, manufacturing, and large local firms (SD-01-G). This strategy specified the ownership, sectors, and organisational carriers for local industrialisation. The emphasis on ownership had

75 See adjusting the proportion and promoting the growth of CBE. Shunde county government, 1979 (调整社队企业比重，加快队办企业的发展，顺德县政府，1979)

76 三个为主：集体经济为主，工业为主，骨干企业为主
both political and practical reasons. The insistence on state- and collective-own economy drew the bottom-line for liberalised practices, which also protected the actors while political environment was still uncertain. Therefore, no matter how TVEs behaved in the same fashion as private enterprises, their ownership remained with local government. The practical side was that local government cadres were the most capable actors in terms of knowledge vision, personal linkages to various resources, and decision-making power. In the case of Shunde, the most successful TVEs were all established by local cadres (SD-01-G). The emphasis on manufacturing was a natural choice: there was huge market demand for manufactured goods, especially in light industries; manufacturing was capable of absorbing large amount of surplus labour; and Shunde had a good manufacturing basis developed through the CBE sector. The priority on large local firms was to reflect the overarching business strategy of Shunde firms. At that time, the chief target for local firms was to expand the scale of production (SD-01-G). Because of government ownership, local government had been motivated to support local TVEs.

Local cadres, who play double roles as both government officials and entrepreneurs, had been involved in multiple interactions in this development stage. Feng Runsheng, the head of Beijiao Town in Shunde during 1980s, once said, “I am the executive manager of all firms in the town” (Yang et al. 2001). These interactive situations can be mostly found in solving the practical problems of doing a business. The first problem concerned how TVEs were financed. As the goals were all about expansion, the TVE sector was in constant demand of investment. Besides profits and government subsidy, a huge portion of the finance was borrowed from the banks. Despite a rather loose financial environment, government guarantee was the key insurance of bank loans.
The second problem was related to the marketing of Shunde products. In the 1980s, majority of stores that sold commodity goods were still owned by the state and located in big cities. The managers of state-own stores were also government officials who had the right to decide what products from which enterprises could be sold in the stores. These managers would favour products from SOEs and discriminate against those from TVEs. TVEs were not considered as eligible competitors with SOEs because of the low administrative rank of TVEs and the stereotype of TVE products as low-tech and low-quality. Therefore, Shunde cadres and entrepreneurs had to visit and socialise with those store managers to establish good personal relationships so as to secure a place for the Shunde products (SD-01-G). At the same time, the discrimination over administrative status pushed Shunde TVEs to increase the competitiveness of their products – through making high quality products at lower prices.

The third problem concerned the production technology employed in local TVEs. The mastery of a certain production technology in Shunde TVEs was mainly achieved in three interrelated processes: purchase from foreign production line, acquisition of technical expertise, and internal adaption and innovation (Ding 2010). The overall product quality was essentially determined by the quality of the imported production line, which was in the form of standardised knowledge. Therefore, no matter how complex the scientific knowledge under the production technology was, it was tradable and transferable. However, firms needed to acquire the quota from central and provincial government to purchase foreign equipment. The main problem for Shunde TVEs was the eligibility to buy. As TVEs were owned by government of lower administrative rank, the limited quota was preferentially allocated to SOEs. In this case, the crucial economic linkages for Shunde cadres were not those with foreign sellers but linkages with higher level governments (Wu 2007). There were a lot of rule-breaking institutional adjustments which basically raised the ranks of Shunde
TVEs. For example, a large refrigerator-making TVE managed to purchase an Italian production line through ‘collaboration’ with a provincial-level research institute (Wu 2007). In this process, the personal connection of local cadres became crucial in setting up this kind of ‘collaborative’ projects. Underneath the surface of formal collaboration, the de facto functional arrangements were mostly kept as informal interpersonal agreements based on conventions and trusts. After purchasing the production line, the local TVEs were still in need of technical personnel to run it. At that time, there was a large group of technical experts from SOEs in Guangzhou working for TVEs in a weekly or monthly periodical base, as TVEs were offering them a much higher salary (SD-22-O). At the same time, absorption and adaption of new technology also took place in-house. Usually, the cadres or entrepreneurs themselves played the role of chief product managers. They directly mobilised technical experts to experiment on standardized technology to produce small technical variations and improvements that led to product innovation. Through such learning-by-doing processes, Shunde TVEs accumulated tacit knowledge in production and develop an advantage of high-flexibility in responding to market demands.

All in all, in the 1970s, Shunde managed to carry out reforms in non-agricultural sector ahead of the rest of the nation. TVE sector in Shunde had substantially benefited as first-mover in the marketisation reform to take advantage of an under-supply domestic market of civil products. Local government officials were the key actors in fostering the growth of TVE sector by playing entrepreneurial roles as well.
Modernising the economy (early-1990s to early-2000s): marketisation and service-oriented government

The TVE sector ran into serious problems in the early 1990s. The whole TVE sector was backed by bank loans. From 1978 to 1985, the total bank loan of the TVE sector was rocketing at the average rate of 53.2% per year. In the year 1985, the total amount of bank loan to the TVE sector was 425 million yuan, which was 81.7% of the total industrial output of the previous year (Chen and Xu 2009).

As market competition became more intense, the weakness of TVEs, such as low production technology, chaotic management, and weak marketing capacity started to be exposed. As a result, a lot of Shunde TVEs ran into deficit and were unable to pay back the bank loan. In 1993, the Bank of Agriculture Shunde Branch (BASB) released a report titled “incredible achievement, shocking burden”\textsuperscript{77} to reveal the deficit and debt problem of Shunde TVEs. According to this report, there were 259 TVEs that failed to pay back their bank loan in time, adding up to 2.1 billion yuan which was 31.5% of the total bank loan in Shunde’s TVE sector. There were 103 insolvent TVEs running at the edge of bankruptcy, owing a total of 820 million yuan to banks. In another report of BASB, the portion of bad debt in the TVE sector of Shunde was 17.2% in 1990, which rose to 35% in the first quarter of 1993.

However, there were no formal institutions and regulations for bankruptcy. Also, it was problematic for local government to shut them down, given that TVEs were the major providers of job opportunities for local residents, especially farmers. As a result, local

\textsuperscript{77} See incredible achievement, shocking burden, BASB, 1993 (瞩目的成就，惊心的包袱，顺德农业银行, 1993)
government had to mobilise money to sustain those TVEs in loss. This meant that local
government had to borrow more money from banks, which added serious debt burden to the
local fiscal system. The money local government made from the profit-making TVEs was
used to subsidise those loss-making ones. Nonetheless, the effectiveness of excessive
investment in the TVE sector eventually depended upon the capacity of the firm to succeed in
the market. In this respect, the competitive competence of TVEs was crippled by the corrupt
managers and disincentive workers (Chen and Xu 2009). Consequently, the TVE sector in
Shunde went into a vicious cycle where more investment only brought more loss and greater
debt burden. Shunde government characterised such situation as “blood-loss”\(^78\).

Around the early 1990s, Shunde government found that the old model of developing TVEs
ran into a dead end. As the fiscal and tax reform of central government abolished preferential
policies to rural areas, Shunde government found it increasingly difficult to borrow money
from banks. More importantly, the market performance of TVEs continued to deteriorate,
while kept adding fiscal burden on local government (SD-01-G). In the wake of the crises of
fiscal debt and chaos in TVE management, Shunde government became to aware of the top
challenge of the local economy: how to shake off the debt burden of the TVE sector and how
to incentivise managers and workers properly to enhance the competitiveness of TVEs?

Shunde government identified the underlying factors for such problems – the debt problem
and competitiveness problem could both be attributed to the problems of property rights in
state- and collective-owned TVEs (SD-01-G). Within a TVE, as the only owner of the firm,
local government was liable for the debt and loss of the firm. However, it was the manager

\(^{78}\) 失血
who had the actual executive power of running a TVE. If the manager made profits, it was his/her achievement; but if he/she made loss, it was local government in debt. This mismatch of benefits and risks encouraged managers to pursue as much investment as possible, which was not in line with normal business practices in a competitive market. Therefore, it was essential for managers to take responsibility for their decisions in terms of both benefits and risks. Within the framework of state- and collective-ownership, there might also be possible solutions to regulate the behaviour of TVE managers. For example, local government could link the performance of TVE managers to their promotion prospects in the political career, as evident in the Kunshan case. However, Shunde government took a rather radical approach towards this problem – by reforming the ownership structure of the local economy.

There are several reasons for such a radical approach. Territorial factors were one of the key reasons. Shunde people were less interested in their political career, so political prospect was thus not an effective motivation. Path dependency was another factor. Shunde government was the first to reform and tasted the benefits as the first-mover of institutional change. The first-mover advantage encouraged them to make further bold moves. Meanwhile, some successful TVE entrepreneurs eagerly asked for the autonomy to run the firms. Their frequent interactions with local officials allowed them to push for reforms that would allow ownership to themselves (Rao 2014).

Nonetheless, the move to reform ownership was still a risky one, which was subject to political uncertainty. A lot of preparation work was required from Shunde government and several key interactive situations were involved. First, there were key temporal events taking place in Shunde. In 1992, Deng Xiaoping visited Shunde in his famous Southern Tour and praised the achievement of Shunde. This provided an over-arching political guarantee for further reform. Second, Shunde officials actively interacted with provincial officials to
campaign for support of the ownership reform. In 1992, Shunde government submitted a report, titled “Applications for conducting experimental reforms in Shunde, promoting the economic growth”79 to the provincial government. In this application, Shunde government not only asked for more autonomy in local administrative affairs, but also volunteered to carry out new experimental reforms. Provincial officials could make use of this by having Shunde as the showcase of their political reformist stand. In this respect, the provincial government would be a stronger negotiator with central government to argue for the political correctness of imminent ownership reform in Shunde. All the above efforts led to an eventful year for Shunde in 1992. In March, the State Council permitted the administrative promotion of Shunde from “county” to “county-level city”. In September, the provincial government officially designated Shunde as the “experimental city for comprehensive reform”80. The administrative promotion and preferential designation set up the basic preconditions for ownership reform in Shunde.

In June 1993, Shunde government published the official document for ownership reform, titled ‘On shifting the mode, trial regulations on developing mixed-ownership economy’81. The strategy of ownership reform was termed as ‘zhuanzhi’82, which literally means, ‘shifting the mode’. In the document, Shunde government stated that the goal of ‘zhuanzhi’ was to “establish the institutions of modern firms with clearly-defined property rights, clearly-
defined executive powers and responsibility, and shared benefits and risks\textsuperscript{83}. The new organizational structure of TVEs featured a shareholding system, where both public and private ownership were involved.

The practical implementation of ‘zhuanzhi’ involved a three-step reform of the state- and collective-owned enterprise. The first step was asset assessment. Shunde government employed professional accounting agencies to assess the value of the firm. The second step was to make the shareholding plan that defined the ownership of property rights. In this respect, the previous public proprietary of a firm was divided into state-owned property rights (owned by county-level government), collective-owned property rights (owned by township or village level government), and staff-owned property rights (owned by managers and workers). The third step was the final sign-up of a shareholding plan. The most revolutionary aspect of the shareholding plan was its recognition of private ownership, in the form of staff-owned property rights (Yao 2000). Moreover, both public-owned and private-owned shares could be traded among public and private bodies, which create the fluidity of assets in the TVE sector.

However, the division of property rights did not change the situation that public proprietary was the dominant component of local economy. This was to do with Shunde government’s ‘three batches’ strategy – ‘grasp one batch, transform one batch, and abandon one batch’\textsuperscript{84} – which discriminated different local TVEs. The ‘grasp one batch’ indicated that local government remained that sole proprietor or dominant shareholder of local firms which were considered high-tech, large scale, and competitive; the ‘transform one batch’ indicated that

\textsuperscript{83} 创建一个 “产权明晰、贴身经营、利益共享、风险共担” 的企业发展模式

\textsuperscript{84} 抓住一批，转换一批，放掉一批
local government transferred the property rights to private owners for ordinary small and medium-sized enterprises; and the ‘abandon one batch’ indicated that local government sold bankrupted and sold insolvent firms. At the end of 1996, all state-owned and collective-owned enterprises in Shunde were transformed. In terms of the ownership structure of the transformed TVE sector, the portion of public-owned assets was 62.4%, domestic private-owned assets was 22.6%, and foreign private-owned assets was 15% (Ding 2010). Apparently, this stage of reform did not alter the fact that public ownership was the dominant part of Shunde’s economy. The agency problem remained for those key large firms in Shunde, especially key firms in the home appliance industry such as Meidi, Kelon, and Galanz. For this reason, Shunde government had to further reform the organisational structure of these local key firms to survive market competition.

The initial strategy of Shunde government was to ‘graft’ local industry onto foreign capital by selling public-owned shares to foreign investors. Shunde government was in great need of cash to pay back the huge debt and to invest in public projects such as infrastructure and welfare (SD-01-G). In addition, Shunde government expected foreign investors to bring capital, new technology, advanced management practices, and channels for entering foreign market to the local economy. For this reason, the network of economic linkages of Shunde started to expand widely across the world between 1993 and 1997. Foreign investors from Hong Kong, Japan, Europe were actively involved in Shunde’s economy, especially in the home appliance industry. These foreign investors were mostly in home appliance sector as well and saw their investment in Shunde as a way to enter China’s market (SD-22-O).

However, such linkages with foreign investors did not bring positive changes to the local industry. On the contrary, foreign linkages created conflicts both within the firm and beyond. First, foreign management system interrupted the functioning of existing organisational rules
and conventions. As these large-scale TVEs all started from very small workshops, the entrepreneurs and workers had undergone the high and low of the firm for decades. They had formed strong personal bonds of mutual trust and respect. Both the entrepreneurs and workers could not accept the takeover of foreign management, as they considered themselves as the owners of the firm (SD-22-O). As a result, the resignation of the core managerial team was not uncommon after the transfer of public property rights to foreign investors. As these core members left, the firm lost the implicit knowledge in terms of suppliers, domestic market, and product technology, which led to further failures in business operation.

Second, in some cases, the transfer of public ownership was not transparent. As there was no formal supervision institution for government power, local government could sell their shares without seeking consent from other shareholders, especially managers and workers. There were huge grey areas for government to decide to whom they would sell the shares and at what price. The “underground” trade often resulted in the loss of control of local firms into the hands of incompetent foreign investors (Tao 1997). These hidden trades also demoralised managers and workers and led to business failures.

Third, there was still political concern over selling public-owned assets to foreign companies. The opponents of ownership reform in Shunde criticised such practices as major losses of public assets. Compared to private ownership of managers and workers, it was more unbearable for the defenders of leftist ideology to see public assets acquired by foreigners. In the case of selling public-owned shares of the Huabo Group to Hong Kong investors, the impeachment letter reached central government level (Tao 1997). The then president Jiang Zemin was also alerted of the issue and ordered the head of Guangdong province to investigate the case. It was the provincial government who proactively defended against
doubts over Shunde’s experiment from central government. However, local practices in Shunde also became more conservative.

With regard to the lessons learnt in the implementation processes of ‘zhuanzhi’, Shunde government adjusted its strategy by retreating from the competitive sectors. Local entrepreneurs, who knew the best of how Shunde firms could survive and strive in a competitive market, played a key role in this new campaign. Since the start of the ownership reform, they had been actively arguing for autonomy in running the enterprises that they started. As the ownership reform unfolded, they saw the best opportunities for them were to acquire the dominant shares of the firm. The efforts of entrepreneurs were initially impeded by the “three batches” strategy and later suspended by the government’s preference over foreign investors. As local government realised that all these measures failed, it finally looked inwards and considered transferring ownerships to indigenous entrepreneurs as experimental solutions (SD-26-F). In this respect, local government designed a specific Management Buy-Out (MBO) scheme for key public-owned firms. Such a MBO scheme set out preferential conditions for the managers, as they were only required to pay only 10% of total amount of acquisition in cash, and the other 90% would be paid by bank loan. As only a small amount of cash payment was required upfront, the managers could acquire the ownership of a firm at a bargain price. Nevertheless, they would be liable for the entire loss and debt payment to the bank if the business failed.

From 1997 to the early 2000s, local government in Shunde carried out further ownership reform for key local firms through the MBO scheme. Gradually, local government completely retreated from the competitive sectors (SD-01-G).
“The government’s idea around that time was to let local firms grow or die on their own. These entrepreneurs come through thousands of battles in the market. They know how to run firms better than the government.” (SD-01-G)

While the ownership reforms were ongoing, Shunde government also conducted progressive reforms on the local administrative system in order to build the necessary institutions of a market economy. Shunde government redefined its role as a ‘service-oriented government’\textsuperscript{85}, which focused on providing public goods and refrained from direct intervention in the competitive sectors\textsuperscript{86}. First, Shunde government streamlined the local administrative system that greatly reduced bureaucratic procedures involved, for example, registering new companies, paying taxation, and participating international trade etc. Shunde government also reformed and consolidated the local welfare system. As ownership changed, the responsibility of local firms to cover workers’ welfare was reduced, which worried workers over loss of welfare. The ‘zhuanzhi’ strategy could only be progressed unless workers’ social security was guaranteed. Shunde government, therefore, established a new welfare system based on social insurance. Meanwhile, Shunde government also outsourced a broad range of public services to the private sector, which was supposed to raise the efficiency and quality of public services. Moreover, Shunde government conducted complementary reforms in labour rights protection, migrant management, and human resource management to support marketisation of the local economy (Chen and Xu 2009).

\textsuperscript{85} 服务型政府

\textsuperscript{86} See research report commissioned by Shunde government, \textit{study on strategies of urban upgrading and new-type urbanisation in Shunde}, 2012 (顺德城市升级及新型城镇化战略研究, 2012)
The ‘zhuanzhi’ strategy was widely considered as a major success in Shunde’s local development. The size of GDP in Shunde continued to expand rapidly and key local firms consolidated their market positions under fierce competition. The experience and achievement of ‘zhuanzhi’ in Shunde was recognised by central government. In the fifteenth meeting of central party committee in 1997, central government officially approved the ownership reforms in Shunde. Drawing on the experience in Shunde, central government published its overarching reform agenda towards mixed ownership economy for the whole country. The ‘grasping the large, letting go the small’ (zhuada fangxiao\(^87\)) strategy was essentially a variation of the “three batches” strategy in Shunde.

**Reorganising the economy (early-2000s to late-2000s): regional branding and intermediate organisations**

Turning to the new millennium, the growth rate of GDP in Shunde started to fall, which alerted Shunde government that there might be problems with its own ‘laissez-faire’ policy (SD-01-G). The piecemeal reform of the administrative system in Shunde had not changed central government’s evaluation system on local officials. Local officials of Shunde, therefore, faced huge pressure from the above once the local GDP growth slowed down.

Though Shunde government granted more autonomy to the private sector, it also reduced the government’s capacity to support the private sector. The lack of government support to the private sector in Shunde became a weakness given the wider contexts of inter-urban competition in China. The fact was that while Shunde undertook a rather fundamental marketisation reform, other localities did not do the same. Local government in other

---

\(^{87}\) 抓大放小
localities tended to substantially subsidise their local industrial sectors, which enabled them to overtake the market share of Shunde products through lower prices (SD-20-F). In essence, the product competition in the national market was not only based on the product itself, but also on the degree of government support. Consequently, given the national market was not completely running on a mature market economy, the retreat of Shunde government turned out to be a weakness in the local economy. The private sector in Shunde started to lobby for greater support from Shunde government.

At the same time, rapid industrial development in Shunde also brought serious problems to key local industrial sectors, especially in the dominant sector – the home appliance sector. There were several large firms in this sector from different towns of Shunde, for example, Meidi (later branded as Midea) from Beijiao Town, Kelon from Ronggui Town, and Galanze from Guizhou Town. Though each of them was initially specialised in certain category of products, these firms started to expand their product lines progressively and created overlap of products among local firms. The reasons for such expansion were several. First, after the ownership reform, it was up to the entrepreneurs to make key business decisions. Therefore, the entrepreneurs were empowered to mobilise large amounts of money to implement their business plans. Such autonomy and capacity set up the conditions for expansion. Second, the core technology in home appliance products was still external to the indigenous firms. Though some firms had established market leading status in terms of certain products, the technological barrier for others to produce the same products was actually very low (SD-22-O). A firm could ‘buy’ all necessary production technology, including core parts, production equipment, and technical experts. Third, expansion of production line was also a practical business strategy to make efficient use of existing resources. Some products, such as electric fans and air conditioners, are seasonal. The expansion of production line would keep the
machines and manual workers fully occupied throughout the year (SD-24-F). Meanwhile, new products could also take advantage of existing well-established sale channels as most home appliance products could be sold together (SD-22-G).

As the firms expanded the product lines, they started to “poach” technological and managerial personnel from other local firms, which created chaos in the local business environment (SD-26-F).

“Job-hopping among local firms is common and we think it makes sense as people always want to earn more money. However, a firm may pretend to poach all your key personnel just to disturb your business.” (SD-26-F)

However, the most significant event for the home appliance sector in Shunde was the “price war” around the late 1990s, started by both local and external firms. The “price war” was about major firms cutting the price of their products significantly to out-compete others. All major firms in Shunde were involved in this price war. Consequently, the profits in the sector plummeted. The problem was that the price war was not only about competition with external firms, but also with local firms. The entrepreneurs of Shunde firms were worrying about that the brutal price war was killing each other. There was a need to develop alliance of local firms to keep the profit at normal level (SD-22-O). In this situation, local government was approached to mediate the conflicts between local firms (SD-01-G).

Therefore, the challenge for Shunde government was to reorganise the local economy by reintroducing government intervention. In response to fierce competition for local industry, Shunde government sought out three main possible solutions: to enhance the competitiveness of Shunde product by lowering the overall production cost; to resolve the conflicts among
local firms; and to integrate their resources to form a “united” force in the wider national and global market.

Since Shunde government had already withdrawn from intervening in business operation, its strategy of reducing the production cost of the industrial sectors was to engender a supportive environment. Shunde government further streamlined administrative procedures, especially in industrial land-use and foreign trade. Shunde government also invested heavily on key infrastructure such as highways (to improve connection to nearby cities), high-quality electric grid, internet fibre network, and integrated systems of water supply and waste disposal.

Importantly, Shunde government was to promote agglomeration economies of local industries. The history of spontaneous and uncoordinated development of TVEs led to a fragmented pattern of industrial land-use. Each town and village had its own industrial district. Meanwhile, there was no spatial plan to regulate the location of new firms. As a result, the geographical location of firms of key industrial sectors was rather scattered (SD-02-G). Shunde government therefore designated county-level industrial zones to promote industrial agglomeration. As a supportive project to help lower the production costs for key firms, these industrial zones were established in locations that were well connected to the existing manufacturing base of key firms. Both government and firms benefited from such cooperation. The government saved cost on infrastructure investment as they made use of infrastructure constructed by private firms. Firms did not only take advantage of the new industrial zone as potential space for future expansion, but also reduced their transaction costs given the proximity to their suppliers.
“Industrial development in Shunde used to feature ‘every village running a factory and every household having a smoking chimney’. We are building large industrial zones to agglomerate the factories. Local firms support it. We have collaborated with Midea to establish a Midea industrial park.” (SD-02-G)

To resolve the conflicts between local firms, Shunde government coordinated and funded the set-up of chambers of commerce for key industrial sectors (SD-01-G). The chambers of commerce were registered as non-government civil groups. However, the operation of the chambers was closely linked to the government (SD-14-O). The membership of chambers of commerce was coordinated by the government. Under the coordination of government, chambers of commerce were able to involve all major firms in each sector. The executive body of a typical Shunde chamber consisted of a secretary and a committee board. The secretary would be recruited from outside the industry. Normally, it would be someone with good communication and management skills, who was not necessarily an insider of the sector (SD-15-O). The committee board tended to consist of senior managers from major firms, who were supposed to meet regularly to exchange ideas over emerging key issues for the local industry. The designation of the Chair of the chamber was the most interesting part: the Chair tended to be a retired Shunde-born high-level government official with rich knowledge of local development (SD-14-O). Such characteristics of a Chair were essential for the functioning of the chamber.

“Being a retired government official, the Chair would be more neutral, not favouring any particular firms. Being Shunde-born is also important. These

88 村村点火，户户冒烟
bosses are all Shunde-born. They won’t listen to an outsider. If the chair is a former high level official, these bosses will respect him and it is much easier to do his job” (SD-14-O).

The role of chambers of commerce was to mediate government-firm interactions and enhance self-regulation within the sectors. Since then, chambers of commerce were to play an active role in the local economy. The chambers were involved in solving conflicts between firms. Moreover, Shunde government delegated a lot of industrial service functions to them. The chambers of commerce were the key institutions to facilitate the implementation of industrial policies. The chambers were the delivery media through which industrial policies were implemented at the firm level. The chambers were responsible for interpreting the impacts and effects of government policy from the local sector-specific perspective and disseminated them to member firms to ensure that government and firms were working in a shared problem situation (SD-15-O). The chambers were also the facilitators of government’s newly revived programs of rewarding firms that achieved landmark revenue, acquired technical patents, or succeeded in brand recognition by national and provincial authorities. In this respect, the chambers were in charge of the promotion and scrutiny of applications from the firms. Therefore, the chambers of commerce provided a key screening mechanism that prevented malpractices that took advantage of possible loopholes in the policies.

“We spend a lot of time to visit firms and ask them what problem they have. Then, we will communicate firm’s problems with the government.” (SD-15-O)

More significantly, built on the functioning of chambers of commerce, Shunde government actively promoted a territorial branding strategy, which referred to the promotion of ‘Made in Shunde’ as a regional collective brand (SD-01-G). The brand of ‘Made in Shunde’ worked
for both consumers and investors. For consumers, ‘Made in Shunde’ was to construct an image that products made in Shunde were of high quality, innovative, and yet affordable. For investors, ‘Made in Shunde’ was to promote Shunde as competitive locations for investment in manufacturing, given the territorial assets like complete industrial chains, efficient and transparent administrative system, great geographical locations, and high quality infrastructure. Practical actions to promote the brand of ‘Made in Shunde’ included the registration of collective trademark (SD-15-O, SD-22-O). The first batch of collective trademarks was for the pillar industries in Shunde, such as ‘Shunde Home Appliance’, ‘Shunde Furniture’, and ‘Shunde Metal Hardware’ etc. The collective trademarks were managed by the relevant chambers of commerce, who then operated the local surveillance system over product quality through the authorisation of collective trademark to local firms. At the same time, the chambers represented the local industry to earn ‘regional recognition’ from the sectoral authority at the provincial and national level.

In the implementation of territorial brand strategy, Shunde government figured out an approach to anchor the promotion of local industrial agglomeration (SD-01-G, SD-17-G). Despite the county-level initiatives, Shunde government directed each administering town to examine their own industrial basis and set up strategies to promote industrial clusters at the township level. The township government soon developed a formula for industrial clusters, which included the steps of: identifying a key sector (through professional consulting services); setting up the chamber of commerce; enhancing government subsidy and external investment; and promoting collective brand (SD-18-G, SD-19-G). The acquisition of regional honourable titles was regarded as the benchmark for the achievement of promoting an industrial cluster. Meanwhile, Guangdong provincial government published a policy to promote the “specialised town”, guiding each town to develop its own specialised industry as
its economic basis\textsuperscript{89}. Given the active practice of territorial brand strategy, towns in Shunde were able to take full advantage of the provincial “specialised town” program, which provided extra sources of government subsidy. The administrative support from provincial government also increased the chance of success while applying for regional honourable titles from national authority. The territorial band strategy was very successful, as each town had identified its own industrial cluster and earned regional honourable title (see Table 6.1).

Table 6.1 Specialised towns and regional brands in Shunde

<table>
<thead>
<tr>
<th>Towns</th>
<th>Specialised industries</th>
<th>Regional brands and honourable titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijiao</td>
<td>Home appliance</td>
<td>Base of Home Appliance Manufacturing; Shunde Home Appliance\textsuperscript{TM}</td>
</tr>
<tr>
<td>Ronggui</td>
<td>Home appliance</td>
<td>City of Home Appliance Model</td>
</tr>
<tr>
<td>Leliu</td>
<td>Metal Hardware</td>
<td>Base of Metal Slide and Hinge Manufacturing</td>
</tr>
<tr>
<td>Junan</td>
<td>Clothing and textile</td>
<td>Famous Town of Jean Clothing Manufacturing</td>
</tr>
<tr>
<td>Lecong</td>
<td>Furniture</td>
<td>Capital of Furniture Manufacturing and Trade</td>
</tr>
<tr>
<td>Longjiang</td>
<td>Furniture</td>
<td>Longjiang Furniture\textsuperscript{TM}</td>
</tr>
<tr>
<td>Chencun</td>
<td>Floriculture</td>
<td>Capital of Floriculture: Chencun Flower\textsuperscript{TM}</td>
</tr>
<tr>
<td>Lunjiao</td>
<td>Machinery</td>
<td>Base of Wood-working Machinery Manufacturing</td>
</tr>
</tbody>
</table>

Source: websites of various chambers of commerce (compiled by author)

The re-intervention of government and the implementation of regional brand strategy successfully boosted the economy. A number of key changes in the local economy can be identified at this stage of development. From the perspective of institutional building, government intervention took the form of intermediate organisations, especially the chambers

\textsuperscript{89} See Guangdong specialised town technological innovation trial implementation plan, Guangdong government, 2000 (广东省专业镇技术创新试点实施方案，广东省政府，2000)
of commerce. Through intermediate organisations, Shunde government was able to infiltrate its pro-growth strategy into the local industrial sector while staying away from usual business operation in firms (SD-14-O).

From the perspective of industrial development, the manufacturing capacity of Shunde was further expanded. Not only the traditionally successful sectors expanded rapidly, there were also new sectors taking shape as each town developed its own industrial clusters. As a result, the local economy in Shunde had greatly diversified, from three mainstay sectors (home appliances, furniture, and floriculture\(^{90}\)) in the 1980s and early-1990s to eight mainstay sectors by the mid-2000s, which included home appliances, machinery, electronics, clothing and textile, chemical, packaging, and medicine (see Figure 6.1).

![Figure 6.1 Sectoral structure in Shunde, 2005 (by industrial output)]

Source: Shunde statistical yearbook (2006)

The economic linkages of Shunde at this stage underwent structural transitions and developed a multi-layered pattern in terms of actors, functions, and geographies. Local actors who actively sought economic linkages shifted away from individual firms to become a network

\(^{90}\) “两家一花”: 家电, 家具, 花卉
of actors involving firms, intermediate organisations, and local government. In Shunde, firms played a constant role in the formation of proximity-based production clusters, as key firms attracted the agglomeration of supplier firms around them. In face of rising challenges such as the expansion of production scale and pressure for product upgrading, key firms had to pro-actively target internationally famous companies (such as Panasonic, Sony, and General Electric) as learning models for developing business strategy, corporate structure, and corporate culture (SD-10-F, SD-11-F, SD-26-F). Entrepreneurs from key local firms organised field trips to the home appliance giants in Japan. Japan became the favourite destination for Shunde entrepreneurs because Shunde firms had been rear-engineering and copying Japanese products for product innovation for decades (SD-22-O).

Economic linkages coordinated by the chambers of commerce featured both proximity-based and multi-locational interactions. The former mainly concerned with regular meetings of local entrepreneurs, mediating intra-sectoral conflicts, and bridging government and firms. The latter was to do with their functional roles as representative of the whole sector. Under the support of Shunde government, the chambers of commerce had been fostering economic linkages by attending and organising industrial exhibitions, which was regarded as the key channels for product and market information. The chambers of commerce led the way for local firms, especially small and medium-sized enterprises, to “go outside”. Facilitated by the chambers, Shunde firms became regular participants of important industrial exhibitions in relevant sectors.
“We called it ‘embracing each other for warmth’\(^91\). Shunde firms will attend these exhibitions as one unit. The chamber will lead the team, in charge of all kinds of small things, such as booking the hotels and organising collective stalls.” (SD-15-O)

As a united force, Shunde firms were actively involved in both domestic and overseas exhibitions. Furthermore, the chambers of commerce also held local exhibition events that drew participants from all over the country or even the world. These outward-looking activities also made Shunde government more actively involved in interactions with external investors.

**Restructuring the economy (since late-2000s): integration of industrial and urban development**

Into the late 2000s, the development strategies featured in the last stage started to bring a series of problems for the local economy. First, the expansion of production scale under the prevailing strategies had gradually overloaded the carrying capacity of natural resource in Shunde. The shortage of land resources raised the awareness of both local government and firms. In order to boost the growth figure of local GDP, Shunde government also adopted the ‘land finance’ practices, which were very conventional measures to attract external investment. A large quantity of land was leased to external investors at preferential rate, who did not necessarily guarantee the efficient use of land resources (SD-18-G). Meanwhile, land use of local firms in Shunde had been wasteful since the initial liberating stage. As firms expended their production scales, the volume of land consumption also shot up. As the

\(^{91}\) 掀团取暖
reserve of land sources were running out, the rising land price became a major driver for further expansion of production scale. At the same time, the problem of environmental pollution caused by industrial activities also rang the alarm bell of the unsustainability of prevailing strategies. The fast growing sectors in Shunde were all highly polluting sectors. According to the official annual reports on environmental quality in Shunde, the water quality of internal rivers in all ten towns was rated as polluted in 2009. This has got worse in the following years. As a result, local government realised that land-use and environmental concerns must be rebalanced in economic development.

Second, most of the manufacturing sectors in Shunde were resource- and labour-intensive, which indicated that the competitive advantages of local industries had been overly dependent on cheap input factors. Besides the aforementioned rising land cost, the labour cost had also increased rapidly. Since the mid-2000s, manufacturing firms in the Pearl River Delta (PRD) have been widely reported with the problem of ‘shortage of migrant workers’, which revealed two general trends in the labour market of manual workers (Liu 2005). The first trend was that migrant workers that used to flood into PRD now had a wider choice of destinations. As the national strategy shifted to heavily invest in the inland provinces to balance interregional inequality, migrant workers could choose to work in cities near their hometown. The second was that migrant workers were demanding higher salary that local firms were unwilling to match. As the competitive advantage of most labour-intensive firms essentially depended on cheap labour, high salary for manual workers would contradict the rationale behind their business model. As a result, the “shortage of migrant workers” was also

---

a self-made consequence, which actually indicated a shortage of “cheap” migrant workers for local firms.

In addition, for the past decades, the local interpretation towards development has put the focus disproportionally on the ‘quantity’ of industrial growth, rather than on the ‘quality’ side of development. Shunde firms were obsessed with indicators such as gross production scale, gross revenue, and market shares, while investing fewer resources on promoting product innovation and raising the actual gross profits. As a result, although some large local firms appeared colossal in magnitude of production, they lacked substantial competitive edge over the product, in term of technology, function, and design (SD-22-O). For most small firms in Shunde, their industrial activities were sitting at the bottom of the value chain. For those small firms developed through ‘specialised town’ strategy, the majority of them were export-oriented Original Equipment Manufacturers (OEMs). Therefore, they were vulnerable to fluctuations in the global market. Around 2007 and 2008, the abrupt global economic crisis put a lot of Shunde firms into deficit or even bankruptcy (SD-01-G).

Given the resource constraints, rising factor costs, and fluctuating market conditions, both local government and firms realised that changes had to be made. Shunde economy had to be restructured to a ‘high road’ that was environment-friendly, high value-added, and resilient toward market fluctuations. However, to restructure the economy is an extremely complex task. As identified in the 12th Five-Year-Plan (FYP) of Shunde, Shunde government was keen to acquire knowledge on critical subjects such as the pathways of upgrading traditional sectors, the integrated development of industrial services and traditional sectors, the integrated development of strategic emerging sectors and traditional sectors, and the necessary institutional reform to facilitate the overarching upgrading initiative. In this respect, the knowledge in demand was of the know-how type possessed by experienced entrepreneurs,
government officials, and scholars. While entrepreneurs and government officials were endogenous, researchers and scholars were not available locally. There was no high-level university or research institute in Shunde. Therefore, such research capacities had to be sourced externally. The challenge for local government was to get access to such external resources and integrate them into the current administrative structure.

The challenge of sourcing research capacity led to the establishment of a new intermediate organisation – the Consulting Committee for economic policy-making\(^{93}\) (CC-economic). CC-economic was a specialised application of the operational mechanism of the Consulting Committee for public policy-making (CC-public). CC-public covers wider public issues other than economic ones, such as education, public health, infrastructure, and cultural projects. CC-public was a bottom-up administrative innovation initiated by Ronggui Town in January 2010. Its primary function was to counteract the shortcomings of the prevailing mode of public decision-making, which was characterised as “pat the head\(^{94}\)”. This traditional decision-making mode tended to involve a few high-level officials to make decisions on the basis of their individual visions, capacities, and preferences. Therefore, reforms were called to make the decision-making more evidence-based, theoretically robust, and inclusive (SD-01-G).

The set-up of CC-public aimed to reduce the probability of policy failure and inconsistency caused by individual fallacy through an institutionalised consulting process. In the first term of CC-public in Ronggui Town, there were 40 members, consisting of party authorities,

\(^{93}\) 顺德经济决策咨询委员会

\(^{94}\) 拍脑袋
entrepreneurs, scholars, journalists, and representatives of local villagers and residents. Most members were from Shunde. In principle, all major public issues should be discussed and scrutinized by CC-public before final decisions was made. However, the power of making final decisions remained in the hands of the local government of Ronggui Town.

The practice of CC-public at the township level was soon recognised and adopted by the county-level government of Shunde (SD-31-G). In October 2010, Shunde government set up the county-level CC-public and published a regulatory document that formalised the practice of consulting-based policy-making. The document stated that CC-public was a supporting organisation for decision-making of local government. The members of CC-public consisted of representatives of local communities as well as elites, mainly entrepreneurs, technological experts, and scholars, who were supposed to mobilise their own expertise and social networks to help solving problems in Shunde (SD-32-O). The executive body of CC-public was the CC Secretary Office, who was responsible for organizing various kinds of consultation activities (see Table 6.2). The administrative functions of CC Secretary Office were executed by the existing official policy research office, who had a new role as the mediator between CC-public and relevant government departments.

95 See Trial Regulations on Consulting Committee for Public Decision-making, Shunde Government, 2010 (顺德区决策咨询委员会工作暂行办法, 顺德区政府，2010)
The official document of CC-public also made it clear that members worked for CC-public as volunteers, but not as employees of the government. At the same time, CC-public had no administrative status, which indicated that CC-public had no power to intervene in existing policies and the consulting process of CC-public was not legally compulsory. Local government remained the primary authority for final decision-making, who could decide independently on whether they would take the advice from CC-public or not.

For Shunde government, CC-public was considered as an important channel for engagement of public opinions, which not only improved the quantity and quality of information for decision-making, but also enhanced the legitimacy of government decision and reduced possible resistance during implementation. As a result, the county-level government actively promoted the establishment of Consulting Committees in all administering towns and other functional departments. By 2013, there were a total of 30 Consulting Committees at the township and county level. The total number of registered members was 818, including 693
members from Shunde, 103 members from other places within Guangdong, and 22 members from other provinces or overseas (Zhu 2014). Over the years, the proportion of party authorities in CC had gradually dropped, and the proportion of non-party and non-government elites and representatives had increased.

Figure 6.2 Proportion of CC members by origins

Source: Zhu (2014)

As an intermediate organisation connecting external consultative resources and Shunde government, CC-public evolved to be the key outlet for outsourcing of government functions to specialised and professional organisations (SD-32-O). Through the members of CC-public, the consulting processes greatly expanded the range and quality of local government linkages with external intelligence resources. When such linkages driven by knowledge sourcing are projected upon the geographical space, the pattern was also essentially people-centred that shaped by individual’s personal organisational and social networks. The knowledge-based linkages with big cities, especially Beijing and Guangzhou, where universities and research institutes agglomerated, became the emerging characteristics of economic linkages in Shunde at this stage.
It is interesting to point out that the linkages with big cities were not new for Shunde. As described in previous sections, the linkages with Beijing and Guangzhou used to be driven by the fact that administrative powers were concentrated in the higher-level government. Local officials in Shunde associated themselves with higher-level officials in central government (Beijing) and provincial government (Guangzhou) to acquire permission and endorsement for rule-breaking development experiments and practices. In contrast, the emerging linkages with Beijing and Guangzhou were driven by knowledge dynamics.

In the context of the expanded consultation network built through CCs-public, the Consulting Committee specific for economic policy-making (CC-economic) was established in November 2011. CC-economic was the county-level consultative organization directed by the Bureau of Economic Development and Promotion (BEDP) of Shunde. Unlike CC-public where the majority of members were from the local area, CC-economic strategically “recruited” external experts as members. In the first term of CC-economic, 8 out of its 22 members were from Shunde and 14 were from other cities. Local members predominantly represented the local industrial sectors, including senior managers of key local firms and secretaries of chambers of commerce. In contrast, members from outside Shunde were mainly intellectual elites from universities and research institutes, whose expertise covered agriculture, manufacturing, service industry, intellectual property, indigenous innovation, finance, and emerging strategic industry (Zhu 2014). The members of CC-economic were obliged to participate in consultative meetings and to submit at least one annual research report on economic development issues of Shunde.

External members also played an intermediate role in coupling resources in one’s original organisation with demands from solving Shunde’s problems. For example, the members of CC-economic became the primary contact when Shunde government outsourced research
projects to external research institutes; through which, the majority of research projects had been designated to members’ original organisations (SD-32-F). While trust with external members was built through face-to-face consultative meetings, some of common pitfalls in outsourcing research projects on local development could be avoided. First, for external experts, it relieved the problems of asymmetry between expertise knowledge and practical knowledge on local problems. Second, the institutionalised CC-economic produced a stable demand of research services from external institutes. For long-term benefits, external institutes were motivated to enhance the quality of their consulting work to secure future research grants (SD-32-O). Therefore, local government could also save costs on searching and monitoring external consultative activities.

“Nowadays the government starts to listen to us researchers. If you do one project for them [Kunshan government] and they are satisfied, they will give you more to do.” (SD-32-O)

Current strategies and implementation of the 12th Five-Year-Plan

The Consulting Committee system, especially CC-economic, in Shunde built up a good knowledge base for solving the three problems raised at the beginning of this section. The 12th FYP (2011-2015) of Shunde was the first overall strategic development plan that blended the fruit of broad consultative support. The 12th FYP enunciated five major themes of the development strategies that featured modern industrial development, indigenous innovation capacity, urbanisation, public service, and regional integration respectively. Goals were often cutting across themes, so the efforts to achieve these goals also required comprehensive and systematic approaches. In the latest development strategies of Shunde, the response to such challenges was the integration of industrial policy and urban policy.
Table 6.3 shows the policy aspects of the industrial development strategies. Shunde government dichotomised its industrial sectors into the ‘old’ and the ‘new’ ones. The old sectors referred to the ‘traditionally successful sectors’, including home appliance, equipment machinery, automobile parts, furniture, steel processing, and clothing. The new sectors referred to the ‘strategic emerging sectors’, including organic light-emitting diode (OLED) display, pharmaceuticals, Internet of Things, solar energy, and advanced materials. Therefore, industrial restructuring in Shunde was to be driven by two engines – strengthening the competitiveness in old sectors and cultivating emerging new ones.

Table 6.3 industrial policy strategies in 12th FYP of Shunde

<table>
<thead>
<tr>
<th>Themes</th>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>The building of modern industrial system and becoming the capital city of modern industry</td>
<td>Upgrade the traditionally successful sectors</td>
</tr>
<tr>
<td></td>
<td>Foster the strategic emerging sectors, especially those highly related to the traditional sectors</td>
</tr>
<tr>
<td></td>
<td>Expand modern service sectors</td>
</tr>
<tr>
<td></td>
<td>Support modern agricultural industry</td>
</tr>
<tr>
<td></td>
<td>Support local growth of private sector</td>
</tr>
<tr>
<td>The building of regional innovation system and the innovative city</td>
<td>Build agglomeration of high-level talents</td>
</tr>
<tr>
<td></td>
<td>Start the “South Wisdom Valley” project</td>
</tr>
<tr>
<td></td>
<td>Explore new modes of industry-university-research integration</td>
</tr>
<tr>
<td></td>
<td>Divert and concentrate innovation resource on firms</td>
</tr>
</tbody>
</table>

Source: compiled by author based on 12th FYP of Shunde
To strengthen the old sectors, Shunde government developed a ‘headquarter economy’\textsuperscript{96} strategy, which aims to retain the ‘headquarter’ functions in local areas while letting go some of the labour-intensive manufacturing activities (SD-01-G). The “headquarter” functions indicate the high value-added activities of the value-chain of a commodity, such as product design and marketing. To enhance the “headquarter” functions of Shunde economy, Shunde government invested heavily in modern industrial service sectors, especially industrial design, finance, e-commerce, logistics, and technological consulting service.

“We are not attracting those external and foreign firms to set a regional headquarter in Shunde. We just want to retain our indigenous firms and create a comfortable home from them.” (SD-01-G)

For the new sectors, Shunde government provided more direct subsidies and paid more attention on attracting external investment. Just like what were the conventional practices in Kunshan of fostering new sectors, Shunde government also adopted the industrial park strategy by initiating the Shunde High-Tech Industrial Park and branding it as “South Wisdom Valley”\textsuperscript{97}. However, with a strong indigenous private-owned economic base, Shunde government again actively sought to engage the private sector in fostering the emerging industrial sectors. The government encouraged local entrepreneurs who accumulated wealth in the old sectors to invest in new ones (SD-27-O/F). There are at least two benefits to ally with the private sector: on the one hand, investment from the private sector was an essential source to fund the entire costly project of industrial park; on the other

\textsuperscript{96} 总部经济

\textsuperscript{97} See Guangdong-Shunde collaboration agreement on establishing South Wisdom Valley, Guangdong and Shunde government, 2011 (省区共建中国南方智谷合作协议，广东省政府和顺德区政府，2011)
hand, local entrepreneurs were more sensitive to market risks than the government. In this way, the government has been able to keep the risks of new projects under control.

To support the aforementioned industrial strategies, Shunde government actively promoted a multi-level system of intermediate organisations that aimed to integrate technological resources (both local and external) into local firms. The first level intermediate organisations were the public technological service platforms that were set up to strengthen firms’ own R&D capacities (see Table 6.4). These platforms could build linkages with local firms through various channels. For example, they could take on research projects commissioned by the firms, or organise training activities for technical staff of the firms (SD-07-O).

Table 6.4 Public technological service platforms in Shunde

<table>
<thead>
<tr>
<th>Public technological service platform</th>
<th>Specialised sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>South China Home Appliance Research Institute</td>
<td>Home appliance</td>
</tr>
<tr>
<td>Shunde-Sun Yat-sen University Research Institute of Solar Energy</td>
<td>Solar Energy</td>
</tr>
<tr>
<td>Shunde base of Guangdong Testing Institute of Product Quality Supervision</td>
<td>Home appliance, machinery</td>
</tr>
<tr>
<td>Shunde Research and Development base of Chinese Academy of Science</td>
<td>Lightening, home appliance,</td>
</tr>
<tr>
<td></td>
<td>automobile, chemical</td>
</tr>
<tr>
<td>Guangdong Research Institute of Xi’an Jiaotong University</td>
<td>Electronics, new energy, biotech</td>
</tr>
<tr>
<td>Guangdong Graduate school of Industrial Design</td>
<td>Industrial design</td>
</tr>
<tr>
<td>South China Furniture Design Institute</td>
<td>Furniture</td>
</tr>
</tbody>
</table>

Source: compiled from 12th FYP of Shunde

These public technological service platforms in cooperation with R&D functions within firms formed a vast pool of knowledge resources in Shunde. Therefore, an intermediate organisation, which went beyond any specific firm or sector, would facilitate more effective integration and mobilisation of these knowledge resources. In January 2012, Shunde government set up the Industrial Service and Innovation Centre (ISIC) to deal with these issues (SD-03-O). By organisational design, the ISIC was a non-governmental and not-for-
profit organisation which took on the service functions of the government for industrial innovation. Its operational costs were covered by government fund, but it could also generate revenue for itself by providing services to local firms. Beside the role as the region-wide platform for technological services, ISIC was also tasked with financial services for technological innovation. Learning from Shenzhen’s experience, ISIC was responsible for managing the public funds as zero-interest loans to qualified technological innovation initiatives of local firms (SD-04-O).

In order to raise the awareness of the challenges of “knowledge economy”, Shunde government, in alliance with the South China University of Technology in Guangzhou, established the Shunde Business School for Entrepreneurs (SBSE). The SBSE was tasked with the education and training of local entrepreneurs and managers to access and digest the latest ideas, knowledge, and skills emerging from the business world (SD-16-F). This aimed to prepare local entrepreneurs, who used to compete in the labour-intensive manufacturing sector with old business models, for new challenges.

The above mentioned intermediate organisations had no inherent spatial dispositions. However, there were also space-oriented organisations that promoted the geographical agglomeration of innovation resources, which were the operational bodies of the industrial parks.
As these industrial strategies were rolling out, Shunde government, as well as the firms, found out that the challenges of industrial restructuring did not necessarily reside within the industrial realm. In fact, the urban environment also needed upgrading to support these industrial development initiatives. Technological and entrepreneurial talents demanded better quality of life and abundant cultural, entertainment, and sports amenities (SD-26-F). At the same time, “headquarter” functions required better reputational image for their location, pushing Shunde government to carry out more place-making and place-marketing activities (SD-01-G). Shunde government therefore actively explored an integrated approach towards urban and industrial development under the rhetoric of “urban upgrading leads the way for economic restructuring, building and enjoying a happy Shunde together”\(^{98}\). In the 12\(^{th}\) FYP, Urban development initiatives were the essential components for the overall economic restructuring strategy (see Table 6.5).

\(^{98}\) 城市升级引领转型发展, 共建共享幸福顺德
Table 6.5 Urban policy strategies in the 12th FYP of Shunde

<table>
<thead>
<tr>
<th>Theme</th>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>The improvement of urbanisation quality and the building of urban space that is livable and business friendly</td>
<td>Reinforce the role of urban planning in urban-rural integration</td>
</tr>
<tr>
<td></td>
<td>Build an ecological urban landscape with <em>lingnan</em> characteristics</td>
</tr>
<tr>
<td></td>
<td>Construct a comprehensive transport system</td>
</tr>
<tr>
<td></td>
<td>Build an highly efficient and convenient ICT network</td>
</tr>
<tr>
<td></td>
<td>Improve the energy supply system towards more sustainable and efficient system</td>
</tr>
<tr>
<td></td>
<td>Build an environment-friendly society</td>
</tr>
<tr>
<td></td>
<td>Enhance the protection of natural environment</td>
</tr>
<tr>
<td>The building of people-oriented homeland for happy life</td>
<td>Promote and support culture, sports, and entertainment projects and amenities</td>
</tr>
<tr>
<td></td>
<td>Improve the quality of local education</td>
</tr>
<tr>
<td></td>
<td>Improve public health services</td>
</tr>
<tr>
<td></td>
<td>Establish a comprehensive social security system</td>
</tr>
<tr>
<td></td>
<td>Raise the real income level of local residents</td>
</tr>
<tr>
<td></td>
<td>Improve public safety</td>
</tr>
<tr>
<td></td>
<td>Cultivate local spirits of innovativeness, integrity, and inclusiveness</td>
</tr>
<tr>
<td></td>
<td>Improve the level of democracy and legalism in local governance</td>
</tr>
<tr>
<td>The Enhancement of interregional cooperation and the construction of multi-level open economy</td>
<td>Actively take part in the integrated development of PRD</td>
</tr>
<tr>
<td></td>
<td>Promote cooperation with Hong Kong, Macau, and Taiwan</td>
</tr>
<tr>
<td></td>
<td>Promote both inward and outward investment</td>
</tr>
</tbody>
</table>

Source: compiled by author based on 12th FYP of Shunde

These initiatives covered three themes: urbanisation, public services, and regional integration. The urbanisation initiative was about the built environment, in terms of urban system, land-
use, landscape, transport, ICT, and other civil utility infrastructure. The urbanisation initiative specifically emphasised the importance of urban planning. Just as the industrialisation of Shunde had been rolling out in the bottom-up fashion, each town in Shunde developed its specialised industry and took its own path of industry-driven *in-situ* urbanisation. Consequently, the urban system in Shunde featured scattered towns without a city centre. The government saw the lack of city centre as a problem since it constrained the ability of Shunde to congregate high-level resources. The latest masterplan of Shunde proposed a “1 centre 3 districts” pattern, which features the spatial division of labour between urban and rural areas, and between central area and the hinterland (SD-02-G).

The public service initiative was not only about the coverage of quality public services for local residents, such as urban amenities, education, public health, social insurance, and public safety, but also soft social and cultural infrastructures such as the income redistribution system, propaganda that raises local morale and spirit, and projects that promote democracy and legalism in local governance. Just like ISIC for the industrial sector, Shunde government also set up two intermediate organisations to support and facilitate urbanisation and public service initiatives – the Urban Renewal Development Centre (URDC) and Shunde Social Innovation Centre (SSIC). The URDC was tasked with the coordination of urban regeneration projects, policy research for local urban planning, and supervision for planning implementation. The SSIC was responsible for research and consulting for social policies, fostering and support local NGOs that enhanced social welfare, and encouraging and engaging firms in public welfare projects. Similar to ISIC, both URDC and SSIC were not governmental departments but played intermediate roles that integrate and mobilise government and non-government resources (SD-31-G).
Lastly, the regional integration initiative was about the self-promoted integration of Shunde into the wider regional development horizon. First, it focused on the integrated development of the Pearl River Delta through industrial cooperation. Shunde government had facilitated local firms to invest in industrial parks in cheaper locations of neighbouring cities and towns to move out traditional manufacturing firms from Shunde. Second, it was to strengthen the linkages with Hong Kong, Macau, and Taiwan by promoting cooperation in areas like finance, technology, logistics, industrial services, agriculture, and tourism. Third, it was the promotion of two-way international flows of investment to attract inward foreign investment that would bring in R&D activities and advanced production technologies. At the same time, Shunde government encouraged Shunde firms to make outward overseas investment by enhancing public services on information about international business policies and market conditions (SD-04-O).

Conclusions

Throughout the four development stages, the economic linkages of Shunde have shown distinctive patterns. In summary, the liberating stage was the initial industrialisation led by local officials who had dual identity as entrepreneurs in collectively owned TVEs. These official-entrepreneurs built and coordinated economic linkages centred on the growth of TVEs. From the organisational perspective, the linkages were with banks, provincial government, SOEs, domestic and foreign markets to acquire essential economic factors such as investment, regulatory permission, production technology, and the market. When projecting such organisational linkages onto geographical space, key linkages were with nearby big cities, especially Guangzhou and Hong Kong. Linkages with Guangzhou were important because it possessed most economic resources and, given its superior political powers, it controlled important institutional resources, e.g. administrative permission to carry
out certain economic activities. The linkages with Hong Kong were more bottom-up and invisible, such as the inspiration of lifestyle and entrepreneurship.

The modernising stage focused on the marketisation and privatisation of the local economy, through which local government retreated from the dual identity and created two well-balanced actors in local governance – the government and the firm. The economy entered into a rather laissez-faire period. The privatisation of TVEs fostered economic linkages with foreign investors as they acquired Shunde firms. However, these gradually faded out following failed experiments, while local entrepreneurs rose to the central stage of direct economic linkages, which mostly focused on domestic markets.

The reorganising stage was about the re-intervention of local government in order to correct market failures in both local and external markets. The linkages between local government and local firms were strengthened through proactive industrial policies as well as the establishment of intermediate organisations, especially the chambers of commerce. The regional branding strategy, coupled with a specialised town strategy, had enhanced local industrial linkages through clustering of firms and suppliers in a production chain, and established new forms of external linkages – the territorial image as a manufacturing base of quality products.

The final and most recent restructuring stage features the development strategies that are underpinned by reconceptualisation of economic development as knowledge and innovation driven. The key economic linkages of Shunde have also been restructured to implant the endogenous innovation dynamics into the local economy. In this respect, Shunde has strengthened linkages with knowledge-intensive organisations (such as universities and
research institutes). New types of intermediate organisations have also been created to facilitate the integration of knowledge resources and local firms.
Chapter 7 Development Models of Learning-based TES

Introduction

This chapter critically reflects on how empirical findings relate to the conceptual framework of Learning-based TES. The first section summarises the findings related to the research questions and comments on the robustness of the application of Learning-based TES in the two case studies. The second section proposes two development models by integrating the empirical findings and the theoretical rationale of Learning-based TES. Based on the proposed models, this section draws out implications for policy making in small town development and urban-rural integration in China.

A Critical Discussion of Economic Linkages of Small Towns

Key findings related to the research questions

In chapter 4, a series of questions were derived from the framework of Learning-based TES. These questions are organised around three themes: local strategy making (including the working development models, the procedures of decision making, and the territorial specific factors), the implementation of strategies (especially the formation of new organisations to deliver proposed solutions), and the practical forms of interactions over long distance, given the hypothesis that external linkages are key to the development of China’s small towns.

Both the Kunshan and Shunde cases have yielded insightful empirical findings in response to these questions. As to local strategy making, both cases have demonstrated that local
development processes are driven by strategic goal setting and action planning. In each development stage for both cases, there is one specific, coherent, and practical overarching strategy that coordinates the local economy wide activities. The development strategy of Kunshan exhibits the characteristics of ‘horizontal linkages’ (attracting investment from Shanghai and inland SOEs), ‘open economy’ (attracting FDI based on economic development zones), and ‘innovative city’ (developing indigenous capacity for technological innovation). The development of Shunde features the strategies of ‘three key industrialisation foci’ (promoting industrial activities through TVEs), ‘shifting the mode (or zhuanzhi)’ (establishing market oriented economy through privatisation), ‘regional brand’ (building a territorial image of industrial specialisation), and ‘city upgrading leading industrial restructuring’ (the integrated development of urban environment and high end industrial activities).

Another empirical concern of this research is the question of what development knowledge is applied by the local actors in strategy making. The empirical findings reveal that the shifts of strategy are underpinned by shifts in the cognitive meta-model of economic development. The initial stage of economic development in both Kunshan and Shunde was underpinned by the fact that they abandoned the Maoist economic model and recognised the dynamics of industrial activities and trade. In the rapidly expanding stages in Kunshan and Shunde, it is evident that local strategies have drawn upon the rationale of industrial clusters and agglomeration economies, especially in their efforts to congregate the ‘full industrial chain’ in local areas. The carrying out of economic restructuring has also seen the adoption of the conceptual model of ‘learning economy’, which puts forwards the ideas of knowledge, talent, and innovation. While meta-models of development are changing, the nature, functions, and forms of economic interactions and linkages will also change. However, it is important to
note that there are different approaches towards these general patterns. The nature and form of such diversity will be closely examined later in the development models of Learning-based TES. The key local economic actors are those actively engaged in strategy and policy making and implementation. Local government is the key actor in both cases, as it has the power to define the ‘problem’ and to construct the strategy to solve it. However, local government in these two cases engaged different economic actors in different ways to develop their local economy.

As to strategy implementation, both Kunshan and Shunde show major organisational changes during their development processes. The findings show that new organisations are the results of the demand for new types of knowledge and economic interactions following the shifts of development strategy. The functions of new organisations, or new organisational arrangements and conventions, are twofold: new organisations consolidate a new knowledge base, framework, and dynamics for new problems; at the same time, new organisations have to formalise, routinise, and facilitate desirable interactions. In the Kunshan case, examples of new organisations include joint ventures with SOEs (capitalising industrial linkages with Shanghai), economic development zones (accommodating FDI and export oriented manufacturing), and the Kunshan Industrial Technology Research Institute (facilitating linkages between research capacities and business). In the Shunde case, examples of new organisations include TVEs (connecting local entrepreneurship with the wider market), modern private corporations (granting autonomy to entrepreneurs), chambers of commerce (mediating conflicts and uniting the voice of a sector), consulting committees (engaging external intelligence resources), and the Shunde Industrial Service and Innovation Centre (platform for knowledge and skill exchanges).
As to long distance interactions, both Kunshan and Shunde have involved substantial external long distance economic linkages. From the geographical perspective, the external linkages of both Kunshan and Shunde have gradually extended their geographical coverage over time. Both Kunshan and Shunde have benefited from geographical proximity to major urban centres, with which the initial external economic linkages were established – for example, the Kunshan-Shanghai linkages and the Shunde-Guangzhou/Hong Kong linkages. As their industrial capacities grow, Kunshan and Shunde have been able to establish industrial and market linkages at a higher spatial scale: Kunshan established linkages with global capital and markets, and Shunde established linkages with foreign companies to learn about innovative production and business management, which led to a highly successful national market. In the latest development stage, both Kunshan and Shunde have been sourcing innovation resources, such as talent and research institutes, nationally and globally. Despite these general trends, this research did not identify any regular correlation between geographic patterns and development stages. However, this research argues that the geographic patterns of economic linkages are subject to the dynamics of economic and social interactions in the problem solving process. Economic development causes and shapes the geographic patterns of economic linkages rather than the other way round. The physical distance of economic linkages can be tentatively explained by transaction costs. The locational advantages of Kunshan and Shunde in the early 1980s were conditioned by the low level of regional and national transport and telecommunications infrastructures back then. As these macro-level infrastructures improved, their locational advantages dissipated. The expansion of economic linkages in the later stages of development is based on territorial advantages, such as industrial agglomeration, good local infrastructure, good government services, trustworthy business environment etc.
Based on these key findings, a number of conclusions with regard to the robustness of the conceptual framework of Learning-based TES to address the research question can be drawn.

The empirical findings corroborate the hypothesis that the function of economic linkages is to acquire key economic assets. The empirical analysis has specified the dynamics of economic linkages, which include the expansion of existing linkages, the loss of old linkages, and the emergence of new linkages. Economic linkages are sensitive to changes in local development strategies, when new knowledge and relations are demanded. External linkages often indicate the access to key economic resources that suffer from insufficient supply internally. As the empirical analysis has shown, these linkages could be the causal factors for establishing new organisations and new local conventions, which are functional for formalising, routinising and strengthening the beneficial linkages which are informal, temporary, and unstable at the initial stage.

The empirical findings also support the hypothesis that the pattern of economic linkages is essentially determined by the capacity of local actors to know ‘where’ the economic assets are and then to gain access to them. The patterns of economic linkages, essentially who and where the city/town links to, is decided by the endogenous searching and sourcing activities. Therefore, the patterns of economic linkages should be taken as functional and organisational rather than geographical, as the nature of the linkage pattern is about what purposes such linkage fulfils and who the actors are, rather than its geographical forms. This research thus argues that there is no optimal geographical pattern of economic linkages for local development.
Key implications of the empirical findings

Exogenous or endogenous development: missing the point?

Many studies on economic development in China have made the distinction between exogenous and endogenous development, depending on whether the key economic assets are generated locally or imported from outside (Chen and Feng 2000; Tsai 2006). In this sense, many studies have considered Kunshan as an example of exogenous development and Shunde as an example of endogenous development (Gu et al. 2001; Wei 2010). The key arguments made are that the economy of Kunshan is driven by foreign investment and the economy of Shunde is driven by indigenous private firms. The problem of the dichotomy between exogenous and endogenous development is that it oversimplifies the complex interactive mechanism in economic development. For the case of Kunshan, although foreign investment comes from outside, it is the ability to attract and embed such investment which is the critical mechanism for successful development, and such ability is endogenous. For the case of Shunde, local firms would not be able to prosper without external resources, such as decentralised power from higher levels of government, imported technology, and external market demand.

Different natures of the private sector in Kunshan and Shunde

The processes of modernising the economy in Shunde can be seen as the restructuring of economic and social linkages. The ‘zhuanzhi’ reform was essentially a restructuring process that transformed these dominant functional linkages from volatile and informal ones to formal, distanced, rule-bound, and transparent ones. Given the retreat of government intervention, private firms rose to become the primary actors in the local economy. The marketisation reforms induced major changes to the local economy in Shunde. First, the
The private sector, rather than the state-owned sector, became the dominant sector of the economy. This feature is not uncommon for most newly industrialised small towns as the state-owned sector is strategically planned and located in major cities by central government. Basically, there have been no seeds from the state-owned sector planted in county level units. Second, the private sector in Shunde is dominated by indigenous firms rather than external investors. It is thus deeply embedded and integrated into local economic, social, and cultural contexts. In contrast, the private sector in Kunshan is predominantly foreign invested enterprises (FIEs). Third, industries in Shunde are oriented towards the domestic market rather than the foreign market. Competition in the domestic market for Chinese firms is more complex than that in the foreign market. In the foreign market, Chinese firms appear only as manufacturers sitting at the lower end of the global value chain. In such a system, with specialised division of labour, Chinese firms only compete in the realm of manufacturing cost and capacity. In contrast, competition in the domestic market involves the full set of competitive activities such as core technology, product design, production cost, and marketing. One of Shunde’s most significant achievements is its incubation of several industry-leading indigenous companies in the domestic market. These competitive companies constitute the most important driver for local development.

The creation of monopoly rent

From the economic perspective, the creation of monopoly rent is the fundamental source for disruptive development (Storper 2013). However, the monopoly rent tends to dissipate over the long term as there is a general ‘learning effect’ at work; latecomers will eventually go on to decode the monopolistic knowledge and make it available to economic actors more widely. Therefore, it is essential for an economy to be capable of creating new monopolistic rent when the old one is diminishing. The creation of monopoly rent is an essential task for a
learning economy. In this respect, it is important to note that the learning economy is only part of the economy; and there will be non-learning elements of the economy which tend to rely on the learning element to provide the dynamics.

From the perspective of economic rent, we can discover that some common patterns have emerged in Kunshan and Shunde. As revealed in the empirical analysis, an essential source of monopoly rent at the initial development stage is their geographical location. Shunde’s proximity to Hong Kong and Guangzhou enabled rural factories in Shunde to enjoy the information and technology spillover, whereas Kunshan’s proximity to Shanghai enabled the relocation of Shanghai SOEs’ manufacturing activities. In order to capture the rent of geographical locations, another monopoly rent, the institutional rent, was created. Interestingly, both Kunshan and Shunde had to break ‘rules’ to create it. As evident in Kunshan, local officials initiated an unauthorised economic development zone, while in Shunde, local officials experimented with TVEs. Such institutional rent has been intentionally strengthened in both cases. Kunshan managed to gain authorisation for its economic development zone and permission for other experimental export oriented activities. Meanwhile, Shunde carried on pioneering its market oriented reforms such as privatisation of state- and collectively-owned enterprises and streamlining its administrative system. While local actors strived to retain institutional rent, other forms of economic rent were also taking shape. The most notable rent is the specialised industrial clusters, which contain skilled labour pools, complete supplier networks, and good infrastructure. However, both Kunshan and Shunde have been aware of the dissipation of institutional and industrial rents. On the institutional side, the ongoing national reform agenda means that the benefits of preferential policies will be gradually and eventually erased. On the industrial side, since manufacturing in both Kunshan and Shunde is based on standardised technology and procedures, once local
factor prices rise and transport costs drop, the manufacturing sector will relocate to other places. In response to this, both Kunshan and Shunde have been creating new forms of monopoly rent, especially that of advanced technology, as stated in their latest development strategies. However, such processes are still in progress and it is difficult to predict whether they will succeed or not.

**LTES Models of Kunshan and Shunde: Bridging Theories and Practices**

**LTES model: towards coherent interactive situations in problem-solving**

This research aims to construct *development models* of small town development in China from Learning-based TES. To distinguish this from other ideas of models (i.e. meta-model), the development model of Learning-based TES is termed a ‘LTES-model’. A LTES model integrates the empirical findings into the theoretical rationale of Learning-based TES to develop a coherent model of territorial development in practice. A LTES model, therefore, provides a systemic solution for the building of learning capacity in the economy.

This research constructs two LTES models – the Kunshan Model and the Shunde Model – based on the empirical findings of the two case studies. However, when the empirical findings are abstracted into the LTES models, they are deliberately simplified (leaving out ‘noise’) to extract and formulate the functional elements of the models. Therefore, the LTES models of Kunshan and Shunde are not necessarily in accordance with what exactly happened in Kunshan and Shunde. The models are knowledge, rather than recordings of empirical facts, that is generalised to allow wider applications. In this sense, this research draws policy implications from the Kunshan Model and the Shunde Model to extract more succinct and focused policy lessons. The common problems of many existing studies, when
drawing policy implications, are that they either draw ideas directly from theoretical discussions or take direct empirical observations uncritically as best practice. The LTES models developed here will fill such gaps between theory and practice.

*The characterisation of interactive situations: towards a coherent action framework of problem solving*

The central components of the LTES model are the ‘interactive situations’. These interactive situations are the meta-engines that drive problem solving. Interactive situations provide the basic coherent framework of action, where problems are identified and constructed and where solutions are tested. There are three features of interactive situations in the LTES model. First, interactive situations are dynamic action frameworks. Although there are formal and informal rules that govern the activities, it is possible for rule breaking activities. Interactive situations are not static conditions where actors just maximise their utilities within fixed constraints on resources and information. Second, it is important to contextualise the interactive situations in coherent Learning-based TES that supports them. The functioning of one particular interactive situation depends on other companion interactive situations as well as on certain economic, institutional, social, and political contexts. Third, an interactive situation will always have both positive and negative effects, like two sides of a coin and the trade-off should also be considered carefully. A possible way to do so is to maximise the positive effects of an interactive situation and to minimise the negative ones.

The LTES models aim to capture and characterise specific groups of interactive situations that are essential for different steps in problem solving, namely, problem awareness, problem construction, and solution testing. Based on such a rationale, the LTES model assigns a specific function to a certain group of interactive situations. Interactive situations of problem
awareness will, for example, especially concern how actors gain information, screen for threats and opportunities, and discover what they want. Interactive situations of problem construction will especially focus on how knowledge is exchanged, combined, and transposed for certain tasks at hand. Interactive situations of solution testing will especially be concerned with how decisions are executed and feedback is collected. It is important to emphasise that such ‘division of labour’ among interactive situations is not absolute; instead, they overlap and complement each other.

The generation of interactive situations: the practical components of a LTES-model

The question is, then: what are the practical elements and structure of a Learning-based TES that will produce a coherent system of interactive situations? As explained in chapter 4, the Learning-based TES has three functional components – the knowledge system, organisational system, and territorial system. To construct a LTES model, we need to specify the practical contents of each component that generate desirable interactive situations, as characterised from the empirical findings.

First, as to the empirical content of the knowledge system, we pay attention to the rationality and knowledge base of actors. The rationality of an economic actor looks at the cognitive modes of the actor for identifying new problems, through which the demand for new knowledge is generated. The cognitive quality of economic actors that generates such reflexivity is concluded by Amin (1999) as ‘recursive rationality’, which is more problem seeking and tends to assume that the environment can be anticipated and, to a certain degree, manipulated through such procedures as strategic monitoring, experimental games, group learning, and so on.
Second, as to the empirical content of the organisational system, we are concerned with the actual formal and informal institutions, such as the administrative system, the key intermediate organisations, and informal norms and conventions. These institutions fulfil certain functions or power relations while their practical forms can vary.

Third, as to the empirical content of the territorial system, we are concerned with the territorially specific culture and social foundation. The territorial elements of the LTES model seem to be problematic for a practical model. As the territorial factors are specific to the case of Kunshan or Shunde, they are difficult to imitate. Since it is difficult to recreate these elements, it is difficult to recreate the LTES model. In this light, the empirical content of the territorial system emphasises the primordial territorial contexts such as culture, social custom, and economic history, as well as the local agglomeration mechanism.

It is the functioning and interactions of these specific empirical contents of the three systems that produce the coherent system of interactive situations for problem solving (see Figure 7.1).

![Figure 7.1 Components of the LTES model](source: By author)
The Kunshan Model: positioning, coalition building, and operation

The featured interactive situations in the Kunshan Model include competitive positioning, elite coalition building, and synchronised operation (see Figure 7.2).

Competitive positioning indicates the interactive situations where the actors are involved in competitions and they are incentivised to win. The function of competitive positioning primarily concerns the problem awareness of local actors. In this sense, the functioning of competitive positions is underpinned by interactions in two general domains. The first domain concerns the competitive setting, where local actors interact to interpret the rules of winning, to know their competitors, and to be motivated to win. The second domain concerns the positioning, where local actors compare themselves with their competitors by analysing their own strengths and weaknesses and setting the goals of the competition. The initial industrialisation of Kunshan was triggered by local officials comparing the local development level with that of neighbouring counties and cities. The fact that they scored worst in performance strengthened their determination to catch up in economic development. When Kunshan’s economy out-performed neighbouring counties and cities, the actors shifted to...
comparing Kunshan with Singapore to benchmark their own situation and set up new goals to achieve.

Elite coalition building indicates the interactive situations where elites build coalitions to exchange knowledge, come up with new ideas, and form alliances etc. The coalition of elites would decide how the problem will be constructed. The functioning of elite coalition building is underpinned by interactions in the domains of elite networking and mutual interest building. For the former, interactive situations are essential to facilitate elite actors to meet, make acquaintance, and briefly know each other’s characteristics such as personality, reputation, and expertise (especially its quality). For the latter, interactive situations are essential for deepening the superficial linkages established in the former networking situation. Elite actors tend to associate with potential partners by engaging in more frequent and serious negotiation in order to fulfil mutual interests in collaboration. The high level officials of Kunshan government are among the elites and they tend to attract big investors who are elite entrepreneurs. Kunshan also hosts other non-government groups or communities of elites, such as the alumni associations of top universities, the associations of overseas talents, the elite entrepreneur clubs, and forums that target elites.

Synchronised operation indicates the interactive situations where the overall action towards problem solution is planned and the local actors are ‘synchronised’ to ensure the effective execution of the action plan. Synchronised operation involves two general steps of concerted actions. The first step concerns action planning. In this respect, interactive situations are essential to clarify and publicise the exact meaning and expectation of action. At the same time, resources are mobilised and deployed to back up the action plans. The examples of action planning in Kunshan include the group study camps for lower level officials and civil servants, where some pre-assigned subjects are intensively studied to make sure the
participants think and act with one accord. The second step concerns *command and execution*. In this respect, interactive situations are essential for the generation and execution of orders. Hierarchy is an efficient means of coordination and ensures the commands from higher up will pass on to lower levels with little resistance or distortion.

The knowledge system of the Kunshan Model features an *overtaking* rationality and *elitist* knowledge base. Economic actors with overtaking rationality usually aim to overtake competitors and they thus position themselves in undertaking challenging tasks. The elitist knowledge base indicates that the actors have higher quality background knowledge and a broader knowledge vision. The interactions between these two elements stimulate competitive positioning where local actors tend to have more ambitious, pioneering, and risky plans. Elite networking responds to such rationale by deliberately sifting out the elites for their ‘advanced’ knowledge. Elite networking also creates an environment where elites compare their visions and competencies in knowledge, which further stimulates more ambitious or even flamboyant ideas to make themselves stand out. Synchronised operation is necessary for the dissemination of such ‘high end knowledge’. As ‘high end knowledge’ is usually unstandardised and is only possessed by a few elites, it is very difficult for others who have to work with such knowledge to fully understand it. Thus, they are outsiders in the problem contexts that generate this knowledge. There have to be some kind of ‘working’ definitions and concepts developed by the elites for outsiders. The system of command and execution is also necessary to keep all staff pulling in the same direction.

The organisational system of the Kunshan Model features a *hierarchical system* and *elite groups*. The hierarchical system firstly features big government, indicating that the government has top-down power over all aspects of the local economy. As to the formal institutions, the government is granted constitutional power over the economy, which is
practised in forms such as control over public revenue and spending and administrative sanctions over economic activities. In the industrial realm, there is a vertically integrated production system, where leading firms direct and coordinate the suppliers. As to the informal institutions, the existence of multiple elite groups and their interactions support decision making at the top and pass down directions through the hierarchy. In the Kunshan Model, the elite groups include groups of elite politicians, elite foreign investors, overseas talent, elite local entrepreneurs, professionals and experts. Elite networking also involves the senior government officials as the ‘central elites’ who organise and direct the orientation of the network. The elites from other areas such as business and academia sometimes need to take the preference of government officials into account as they control the resources that realise ideas. Therefore, the more powerful the government, the more likely it will be to build coalitions with elites from the business and academic realms.

The key actor in competitive positioning is the elite among government officials which can smoothly project its personal inspirations onto the local development agenda. Since the non-government elites tend to be external, they will have to attain widely respected honours or titles to be recognised by the local government elites. The strong presence of authority is also a requirement for synchronised operation. On the one hand, the authority is part of the formal hierarchical design of the administrative system. Anyone who is in a senior position would have the power to enforce his/her own will. On the other hand, this authority is earned and reinforced by the performance of the authorities and the real benefits that they bring to the general actors. Thus, the organisational system of Kunshan is a hierarchical system in which the elite groups are capable of delivering good results.

The territorial system of the Kunshan Model is characterised by the tradition of *authoritarian and meritocratic culture*. There is a widespread belief in the elites’ ability to take control of
major issues and it is best for others to follow the elites. Such a cultural characteristic is essential for the functioning of elite coalition building and synchronised operation. Elite networking itself has a territorial element, as the expansion of networks depends on the existing one in a cumulative fashion. The elite status of local government provides a territorial anchor. Even when there is personnel change in top government positions in Kunshan, the newcomer will automatically gain authority over local economic activities. Such authority not only comes from the legal power of top positions, but more importantly, also from the wider unmovable social foundation of lower level executive actors who respect anyone in those position and continue to work in accordance with authority.

The Shunde Model: monitoring, matching, and mediation

The characteristic interactive situations in Shunde include reflective monitoring, skill matching, and communicative mediation (see Figure 7.3).

![Interactive situations in the Shunde Model](Image)

**Reflective monitoring** indicates the interactive situations where actors reflect upon their current situations, through which problem awareness is raised. The functioning of reflective monitoring includes interactions in two interdependent domains. The first domain is a *cultivating setting* where actors interact to experiment with new practices with an expectation...
of generalising short term and long term goals to be achieved. It is like planting seeds in the
soil, with the expectation of growth and fruit. The interactive situations in reflective
monitoring encourage diversity of trial and error in economic practices. In the initial
development stage, Shunde set up the cultivating setting for bottom-up industrial practices, in
which ideological and political risks were relieved by local government. The reforms of
privatisation of TVEs and service oriented administrative system can also be seen as creating
a cultivating setting for local entrepreneurship. The second domain, in relation to the
cultivating setting, is about monitoring and reflecting on the ‘cultivation’ process. In this
domain, interactions are essential for actors to keep checking the current situation to spot any
threats in a timely fashion. Such monitoring practices will also involve interactions that
compare with and learn from certain successful cases. In the Shunde case, the performance of
the TVE sector was under monitoring. When the TVE sector struggled, local actors were able
to identify the internal problems, such as ambiguous ownership, which led to the subsequent
reform. Local firms not only carry out self-monitoring in terms of market performance, but
also make reference to leading foreign firms who are not their competitors.

Skill matching indicates the interactive situations where the demand and supply of skills and
knowledge in problem solving are matched. Such matching processes are supported by two
domains of interaction. The first domain is the pooling of skills, which indicates actors
actively engaging themselves in signalling, searching, and screening for the skills and
knowledge that are needed, as well as advertising, demonstrating, and marketing their own
expertise. The pooling of skills can also engage external resources by establishing pipelines.
The second domain is the coupling and matching of the demand and supply of skills. In this
domain, actors meet, talk, and reach deals in the labour market; the forms of such deals
include contracting, outsourcing, and collaboration. Practical examples include the
outsourcing of government services to the private sector and intermediate organisations, the working of consulting committees, the joint ventures of local and foreign firms, and the setting up of research institutes. The interactive situations of skill matching reflect a higher degree of vertical disintegration and horizontal integration of the economy, which spreads the responsibility as well as the risk among numerous units and enhances the flexibility and resilience of the economy. The functioning of skill matching requires a relatively low level of transaction cost to enhance the benefits of specialisation and disintegration.

Communicative mediation indicates the interactive situations where a diversity of voices and interests communicate to each other and consensus is achieved. The interactive situations in communicative mediation are essential for resolving conflicts in development processes. The functioning of communicative mediation depends on two interdependent domains. The first domain concerns getting one’s voice heard by the majority of local actors. Actors with the same interests are summoned to form a collective voice and they also interact to listen to other voices. The second domain is about consensus building, where actors meet and communicate with each other to achieve mutual understanding. Actors would adjust their own preferences, make compromises, and develop tolerance. Therefore, communicative mediation is also essential for making large, complex, and fundamental decisions. Practical examples of communicative mediation are the practices of chambers of commerce, which provide platforms to mediate conflicts among members and to form a collective voice in the sector to be heard by the government and other business groups.

The knowledge system of the Shunde Model features a cultivation rationality and a specialist knowledge base. The rationality of cultivation indicates a belief that successes in the economy (such as successful firms and industrial clusters) are attained through long term cultivation, starting from small scale practices, attending to their growth, and solving
problems in a timely manner. The cultivation rationality is evident in Shunde, as local entrepreneurs started from humble workshops and cultivated them into large scale companies. The Shunde government actively created and consolidated the cultivation setting for local entrepreneurships by withdrawing intervention. The specialist knowledge base indicates a knowledge base consisting of a large quantity and great diversity of specialised skills and knowledge, which is essential to form the base for skill matching. The specialist knowledge base can be built through a combination of endogenous learning-by-doing and external import.

The organisational system of the Shunde Model features a *network system* and *intermediate institutions*. The network system has an inclusive and participatory governance structure in which a broad range of economic actors are involved. The network system features a generalised division of labour in the economy, where the government focuses on public services and private firms participate in the market economy without state intervention. At the same time, the local production system is vertically disintegrated. Intermediate institutions indicate the interactive platforms for individual actors as well as for groups, in the forms of both formal organisations (such as chambers of commerce, the industrial service centre, and the consulting committee) and informal actor networks built on kinship, common interests, and trust, etc. The network system is the prerequisite for skill matching and communicative mediation. The network firstly encourages the entry of a large number of specialised actors and ensures that they have channels for their voices to be heard. The intermediate institutions are important in lowering the transaction costs of these frequent interactions.

The territorial system of the Shunde Model features *grass roots entrepreneurship* and *generalised trust*. The grass roots entrepreneurship indicates the large and broad population
base of entrepreneurs, who are spontaneous, self-motivated, and adventurous. The generalised trust indicates the economy-wide trust within and between local communities. Grass roots entrepreneurship is essential for reflective monitoring and skill matching as it ensures active participation of local actors in the economy. As the rate of failure in entrepreneurial ventures is high, the sheer number of participants would give rise to a few successful cases. The generalised trust encourages and facilitates interactions in skill matching and communicative mediation. The trust within a group ensures the members commit to collective interest and the trust between different groups prevents one dominant group from suppressing the voices and interests of other groups. The attainment of grass roots entrepreneurship and generalised trust usually involves long term historical processes and it is therefore deeply territorialised.

**Summary and comparison of the two development models**

The Kunshan Model and the Shunde Model provide two possible ideal types of learning-based development in small towns and rural areas. These two models feature contrasting approaches towards endogenous dynamics of learning, as they are based on different sets of interactive situations and components of Learning-based TES (see Table 7.1). In summary, the Kunshan Model and the Shunde Model represent the best scenarios for the two extremes of learning-based development. The Kunshan Model can be labelled as ‘extrovert’, ‘controlled’, and ‘top-down’; and the Shunde Model can be labelled as ‘introvert’, ‘autonomous’, and ‘bottom-up’. From the temporal perspective, the Kunshan Model tends to be more effective in bringing about short term results and it will need constant stimulus to ensure sustained performance. In contrast, the Shunde Model is subject to a higher level of uncertainty in the short term but the large number and diversity of autonomous actors can provide economic resilience over the long term.
In the context of urban-rural integration in China, both models have demonstrated possible approaches to overcome the inherent constraints in small town and rural development, such as low administrative status, small local market, and shortages of resources and talent. However, this research is not to argue which model is superior; on the contrary, they are both valuable reference models for problem solving in different territorial contexts and time frames. Apparently, the Kunshan Model and the Shunde Model will be most relevant to localities with similar development rationality, institutional structure, and cultural conventions. Therefore, a locality could apply either model to build its learning capacity in accordance with its development context. For example, a locality with strong government may follow the Kunshan Model to establish its elite network and enhance its executive capacity, and a locality with an emerging cluster of local entrepreneurs may follow the Shunde Model to set up a platform organisation to integrate resources and reduce bureaucratic costs for local businesses. Furthermore, the Kunshan Model and the Shunde Model can also be applied in a hybrid way to solve specific problems in practical situations. For example, Kunshan has adopted the Shunde Model to cultivate its own indigenous private sector and Shunde has applied the Kunshan Model to attract external investment from emerging hi-tech industries.

Nonetheless, both development models may also have negative impacts on local development if not managed carefully. The Kunshan Model could produce a development strategy that is highly speculative. As the key economic actors are the government officials who are incentivised to achieve economic growth in the short term, they will opt for strategies that yield huge benefits in a short time. However, a strategy with higher returns tends to bear more risks and uncertainties. In the current administrative system of China, there is no effective mechanism to restrict the speculative behaviours of local government officials.
Moreover, the negative effects of certain development projects are non-reversible, especially those which consume land resources or cause environmental deterioration. The potential problem with the Shunde Model is that strong local communities could gradually grow into rent seeking groups who protect their narrow self-interests by blocking off outsiders. The presence of such forms of local actor network will lower the generalised confidence in the economy and stop the ‘outsiders’ from investing.

Table 7.1 A Summary of the Kunshan Model and the Shunde Model

<table>
<thead>
<tr>
<th>Interactive situations</th>
<th>Kunshan Model</th>
<th>Shunde Model</th>
</tr>
</thead>
</table>
| Identifying a problem  | Competitive positioning  
• competitive setting  
• positioning | Reflective monitoring  
• cultivating setting  
• monitoring and reflecting |
| Knowledge exchange     | Elite coalition building  
• elite networking  
• mutual interest building | Skill matching  
• pooling of skills  
• coupling and matching |
| Implementation and solving conflicts | Synchronised operation  
• action planning  
• command and execution | Communicative mediation  
• getting one’s voice heard  
• consensus building |
| Learning-based TES components | Knowledge system  
• overtaking rationality  
• elitist knowledge base | Organisational system  
• hierarchical system  
• elite groups |
|                        | Organisational system  
• network system  
• intermediate institution | Territorial system  
• authoritarian culture  
• meritocratic culture |
|                        | Territorial system  
• grass roots entrepreneurship  
• generalised trust | |

Source: by author.
Policy implications

The objective of policy

For any given set of systems of knowledge-organisation-territory of a locality, the various interactive situations in the local development processes have to be functionally complementary and compatible. In the LTES Models, such internal coherence of interactive situations is attained through following the logic of problem solving for complementarity and a coherent set of functional components in the Learning-based TES for compatibility. The task of policy in learning-based economic development is to support the functioning of different packages of interactive situations in a coherent learning-based territorial economic system. The Kunshan Model and the Shunde Model are two ideal types of such kind of packages, which should be applied in their entirety rather than in a piecemeal fashion. In this light, the focus on the building of interactive situations in this research is more detailed than the general focus on institution building. The latter often leads to the building of formal organisations and neglects the indispensable part of informal institutions.

However, informal institutions, such as relations and conventions, are much harder to bring into being than formal organisations, because it is only possible to attain this ‘software’ of the economy from accumulative processes. Policies must have strategic content, by which the policy should develop a time dimension of the economy and incorporate a strategic vision over the long term process. Correspondingly, the action oriented content of policy should set the economy on a trajectory of learning towards the vision and solve the problems which occur in that process.
The procedures of local policy making in small towns

The question is how to develop the strategic and action oriented content of policies. The application of the Kunshan Model and the Shunde Model to derive this content is illustrated here. The advantages of the Kunshan Model and the Shunde Model are that they provide two contrasting governance structures, either top-down or bottom-up, and each model represents the ideal scenario for either type of structure. So, the Kunshan Model and Shunde Model should provide a benchmark against which a locality can position itself. However, this is definitely not to imply that a locality should choose either the Kunshan Model or the Shunde Model; it is possible for a locality to develop a hybrid model of the two, or even a new LTES-Model through its own learning process. Nonetheless, reference to either model can only provide a starting point to set up the learning trajectory, it is important to assess each locality’s unique assets and cultures before adopting/developing any LTES Model. This research, therefore, proposes a 3-step formula for the application or development of a LTES Model: assessment, experimentation, and institutionalisation.

The first step is a strategic assessment of local conditions in reference to the Learning-based TES. The demand for a strategic assessment is to examine the existing state of such factors as development rationality, knowledge base, governance structure, local groups, local culture, and other territorially or temporally specific factors. Based on the existing state of these factors, local actors should know which model, either the Kunshan Model or the Shunde Model, should be adopted as the major reference framework. It is important for the locality to position itself appropriately within a trajectory of development so as to develop a strategic vision with reference to the development stages of Kunshan or Shunde. This is to avoid over-optimism and eliminate unrealistic goals.
The locality should also examine the existing state of interactive situations in local problem solving. It is important to assess what informal rules and conventions are functioning and whether these rules and conventions would potentially facilitate or block wider functional interactions. At the same time, it is important to assess the level of trust among local actors, especially to identify the “missing” trust in reference to either the Kunshan Model or the Shunde Model and the factors that destroy this trust. Based on the results of the strategic assessment, policy makers should formulate the strategic content of the policy, containing a vision for the functional structure of the local economic system, and install the key interactive situations.

The second step is experimentation, which indicates a gradual approach towards the strategic vision. The building of functional interactive situations should start from small, low cost, and experimental interactions. Experimentation is essential for creating precedents which “act as guides on action, are reinterpreted and reevaluated for their efficacy, and reproduced as conventions when they work to coordinate action under conditions of uncertainty” (Storper 1997, p.273). The challenge for experimentation is how to ice-break the initial deadlock when actors cannot be easily convinced of the benefits of interactions. In this case, an option is to provide incentives (such as subsidies) to the participants. However, if all actors expect that other actors only participate for the incentives, there is no trust and confidence generated from the experiment. To avoid such a danger, the incentive should be installed in a way to facilitate interactions that generate mutual trust and greater benefits than the incentives. These incentives should be gradually replaced with precedents showing wider actors that if someone does not participate, he/she will suffer a real loss.

The third step is institutionalisation. Institutionalisation involves both formal organisational structure and informal relations and conventions that are established through experimentation.
As long as the experimentation has set trust, confidence, and conventions on the right track, it is important to construct formal structures that could work without interpersonal relations to allow easy entry for outsiders into these functional interactive situations. This is also essential to prevent the formation of vested interests in small groups.

**Implications for regional and national policies**

Local development of small towns can hardly be taken out of the general contexts of regional and national policies. In China, small towns suffer from the lack of knowledge, power, autonomy, and investment because of discriminative institutional arrangements between different administrative hierarchies. Therefore, the effectiveness of building learning capacities in small towns is subject to not only the efforts of local actors, but also the wider regional and national networks. Successes in both the Kunshan and Shunde cases could be attributed to policies on a higher scale. Kunshan benefits from the designation of competent government officials who provide overall leadership in the development processes. Shunde, on the other hand, benefits from the decentralisation of power from the provincial government. Therefore, there are fundamental areas of work to be done at higher levels: to train up more elite officials with greater leadership skills and a wide range of professional elites, and to expand the scale and scope of devolution of power to local actors.

At the same time, regional and national level policies should focus on promoting urban-rural integration as a learning process. Interpreting from the perspective of the LTES Models, small towns and rural areas can be self-integrated into the wider economy as long as they can effectively establish functional interactions and linkages with other localities. As interactive situations are open systems, it is not unusual for actors to be engaged in multi-locational interactions. Therefore, it is essential to lower transaction costs to facilitate the mobility of
actors. It is thus important for regional and national policies to improve ‘interaction oriented’ infrastructure, including hardware such as transport and telecommunications links, and software such as regional and national coordination institutions.
Chapter 8 Conclusions

This research starts by reviewing the topical debate on urban-rural inequality in China, and the government initiative to promote urban-rural integration and economic development in rural areas. Existing studies on urban-rural integration in China have only focused on how urban-rural integration can be achieved through top-down strategies. These strategies are urban-centred and result-oriented. Therefore, this research aims to approach the issue of urban-rural integration from a rural-centred and process-oriented perspective. This leads to the questions: how can a small town or rural area endogenously develop a successful economy? And what are the economic relations of small towns and rural areas with other places in development processes? In this light, this research employs the concept of ‘economic linkages of small towns’ to formulate the research aim – that is, to examine the functions, patterns, key actors, and dynamics of economic linkages of small towns and rural areas in their development processes.

In order to situate the analysis of economic linkages in a systematic framework, this research firstly explores how different development theories conceptualise economic linkages. In chapter 2, three general theoretical discourses are highlighted, namely growth pole, global production network, and learning region. The idea of ‘territorial economic system’ (TES) is developed to conceptualise economic linkages within a systematic structure. Different theoretical models of TES will have different propositions on functions, patterns, key actors, and dynamics of economic linkages. In order to construct an appropriate conceptual framework of TES in the context of urban-rural development in China, chapter 3 is devoted to a review of urban-rural development in China. Then, in chapter 4, the conceptual
framework for analysis of economic linkages in China, the Learning-based TES, is constructed, consisting of three functional components: the knowledge system, the organisational system, and the territorial system. The idea of ‘interactive situations’ is developed from the Learning-based TES for empirical case studies of two county level units in China, Kunshan and Shunde. The empirical findings from these two cases are reported in chapters 5 and 6 respectively. In chapter 7, based on these empirical findings, two development models of learning-based development are proposed for small towns and rural areas, the Kunshan Model and the Shunde Model. These two models contain two coherent sets of interactive situations in problem solving, from which policy implications on urban-rural integration in China are drawn.

In this final chapter, this research concludes with theoretical reflections on economic linkages and territorial integration, as well as comments on the constraints on the research and recommendations for future research.

**Theoretical reflections on economic linkages**

Though China’s economic development has evolved along a rather unique trajectory, other countries or localities can still learn important lessons from the development experience of China. These lessons tend to transfer across the world through various conceptualised development theories and models. This research has made contributions to extract new lessons from China through the conceptual framework of the Learning-based TES and two development models, the Kunshan Model and the Shunde Model. These new lessons from China provide fresh perspectives to reflect on the current state of theories on economic linkages and territorial integration.
The nature of development problems

It is evident that any development theory contains an inherent assumption about what the development problems for territorial economy are. For example, the growth pole theory argues that the lack of a propulsive industrial sector is the development problem. The Global Production Network theory argues that being left out of the globally organised production network is the development problem. Meanwhile, the learning region theory argues that the absence of a technological innovation system is the development problem. However, both a propulsive industrial sector and integration into the production network are results of successful development. If the results are taken as the cause of development, this usually leads to installation of these results through exogenous forces, such as the establishment of centrally planned growth poles and export processing zones. These top-down interventions have largely failed as they are not compatible with the economic, social, and institutional contexts of the targeted localities (Parr 1999b). In contrast to the top-down approaches, learning region theory advocates the importance of endogenous capacity building and process-based development.

The problem of learning region theory is that it narrows the scope of endogenous learning to technological innovation, which is considered as the main source of development dynamics in capitalist economies (Malecki 1997). However, the primary status of technological innovation as development dynamics has only been demonstrated in technologically advanced economies like North America and Western Europe (Nelson 1994). For those technologically secondary economies, technological innovation can hardly be their primary task, and they are mainly involved in acquiring and adopting existing technologies (Lee and Lim 2001; Hobday 1995). In this research, the development experiences of Kunshan and Shunde have demonstrated that a locality can direct local problem solving towards a much
wider scope of practical development problems, such as institutional barriers of urban-rural dualism. Therefore, there should also be an endogenous approach towards identifying development problems, rather than merely developing the solution of a preset problem. As explained in the framework of Learning-based TES, a coherent cycle of problem awareness, problem construction, and solution testing is endogenously driven, and such problem solving processes are subject to local conditions of the knowledge, organisational, and territorial systems. A locality must target appropriate problems within its capacities. Compared to the exogenous approach, endogenous problem solving can reduce the risks of information asymmetry and distorted incentives. A locality can then accumulate its problem solving capacities as it gradually targets more complex problems each time. Therefore, research should pay more attention to exploring how a locality can always identify the appropriate problem and how central level policy should not distort the local perception. This will require more innovative multi-disciplinary research to integrate cognitive science, psychology, and organisation studies to better understand the rationality and behaviour of individuals and organisations in decision making.

**The approach to organisation**

The ultimate dynamics of development are human activities, coordinated by both informal and formal rules. Development theories take up the organisational role of an actor to premise its actions. For example, growth pole theory is based on firms, which play the organisational roles of profit driven and market coordinated actors. The GPN theory, besides firms, incorporates additional organisational roles, such as government and intermediate organisations (e.g. development agencies and business associations). However, the problem is that they do not look inside these organisations to examine the informal relations and conventions that coordinate the actual functioning of organisations. The learning region
theory makes progress by recognising the actor network, which consists of informal and conventional relationships that support the formal structure of organisations. Therefore, as Storper (1997) argues, there is a circular relation between the formal structures of an organisation and the informal actor network; formal structures have a strong effect on the formation of relations and conventions by generating regularities and precedents. At the same time, the functioning of formal relations is conditional on their consistency with the conventions that are actually employed by the actors. Nonetheless, such circularity creates a mutually reinforcing system of formal and informal relations and there is no window for creation of new relations. There has to be a level of economic coordination beyond the organisational sphere to provide the dynamics for organisational and institutional changes.

To deal with the circularity problem, this research has employed the idea of the ‘interactive situation’ as the overall action framework. Interactive situations not only consist of existing formal and informal rules, but also allow the ‘space’ for new relations to be built, driven by knowledge and territorial dynamics. Within interactive situations, new relations can be initiated, experimented with, routinised, and formalised. Therefore, development research should pay more attention to the creation processes of new relations, especially to issues such as how uncertainty is managed in establishing new relations, how new relations interact with existing relations, in what circumstances new relations are sustained or discontinued, and in what circumstances relations are formalised or remain as informal conventions.

**The geography of development**

The locational pattern of economic activities has always been a hot theme in development studies. As inter-regional and urban-rural disparities grow, policy makers are also keen to know how to achieve an efficient yet just spatial distribution of economic activities. As far as
this research has covered, theories of local and regional development all have an inherent assumption about the geography of development. For example, the growth pole theory argues a territorially bounded ‘core-periphery’ pattern of economic activities, where the core area drives the development of its hinterland. The GPN theory argues a ‘network’ pattern of the spatial division of labour, in which cities and regions are coupled into this network based on their comparative advantages. The learning region theory argues the existence of ‘innovative regions’ as the relatively independent agglomeration of economic activities. These innovative regions are the powerhouses of the world economy as they keep pushing forward technological innovation through endogenous learning. All three of these geographical patterns can be observed in successful cases of local and regional development.

However, the pitfall is that the geographical pattern could be taken as the cause, rather than the consequence, of development. Many local and regional development strategies have taken geographical pattern as the starting point. For example, the territorial integration programme of the Pearl River Delta (PRD) aims to ‘integrate’ the cities and towns in the PRD through a regional production network. The vision of the PRD integration initiative postulates an optimal locational pattern of economic activities based on specialisation and cooperation, which combines the core-periphery pattern and production network. Such a vision leads to a plan that assigns different specialised sectors to different cities or towns within the PRD. The problem is that it employs a static model of spatial equilibrium that calculates efficient allocation of resources based on the current situation of factor endowment. As a result, it erases the possible dynamics of individual places that break away from such a hierarchy.

Nonetheless, even if such planning could work out in the real world, it would only consolidate inter-place inequality by assigning high value added activities to high income cities and low value added activities to low income cities. This is moving away from the good intentions of integration – to reduce the gap between rich places and poor ones. Therefore, it is dangerous to plan for the spatial division of labour between places and lock in their economic linkages. Another example of a development strategy that starts from a geographical pattern is the hi-tech industrial park programme, as evident in the Kunshan case. Drawing on the rationale of geographical proximity in learning region theory, the industrial park is designed to congregate firms, research institutes, and public service platforms so that they can form an innovative cluster. However, geographical proximity is neither the sufficient nor the necessary condition for effective linkages and interactions between actors.

Of course, we cannot blame the theorists if their theories are misused by policy makers. However, it is still fair to criticise these theories as they give the illusion that geographical pattern could be the primal cause of development. This is not to deny the importance of geography in development, but a better way is needed to incorporate it into the theory. The problem of these theories is that they only explain how a geographical pattern is functional for actors without identifying how actors actually approach others, far or near. Therefore, the geographical factors have to be internal to an actor’s cognitive processes in decision making. In this respect, the Learning-based TES employs the idea of ‘territorial system’ to illustrate that there are inherent territorial qualities of a location, such as territorially specific assets or temporal consequences of an event. An actor’s decision on where to locate or to interact will be shaped by both the territorial qualities of his/her current location and their knowledge on the territorial qualities of other locations. Therefore, the locational pattern of economic activities is an accumulative result of numerous actors making decisions. It is more important
to understand what actors need from a location and their knowledge of the territorial qualities of different places, rather than to formulate a normative geographical pattern of economic activities.

**Research limitations**

There are several limitations of this research that deserve attention of future research. The issues are related to three areas: economic focus on the values and ethics of development, limitations in theoretical breadth and depth, and limitations in methodological design.

**Economic focus**

This research has adopted only the criteria of economic performance to represent development levels. Nonetheless, there are many other goals of human development, such as freedom, social justice, cultural diversity, and environmental sustainability (Sen 1999; 2009; UNDP 2004; UN 2015). The value of these achievements in development cannot be measured by economic criteria. They are essential parts of human happiness and welfare that should not be sacrificed to short sighted economic growth. Moreover, these human development achievements are difficult to restore once destroyed. It is not wise to think of them as secondary goals which could be dealt with after the ‘primary’ economic goals have been achieved. Even from an economic-centric perspective, these social, cultural, political, and environmental conditions are necessary for a sustainable, balanced, and healthy economy (Storper 2013). As evident in China, many social, cultural, and environmental problems have emerged in companion with rapid economic growth (Pils 2005). Eventually, these problems have to be taken seriously to ensure the capacity of sustainable economic growth. Therefore, the broader social, cultural, political, and environmental goals have to be better integrated with economic goals to deliver comprehensive development.
This research, to some extent, is constrained by such economic focus. The empirical fact that local development strategy still prioritises economic performance has led the centre of gravity of the analysis towards economic activities. Actually, the conceptual framework of Learning-based TES is open to other values of development. If local actors were to define their development problem based on a more comprehensive value system of development, they might also mobilise resources to solve it. In this respect, this research has been less critical of the ‘development problem’ identified by the local actors. If the problem is a ‘valued’ one in relation to the comprehensive value of development, who wins and who loses in solving that problem? Is there any injustice in the problem solving process? These questions should be tackled seriously in future research. Hence, it is important to be aware that the findings of this study focus on such an economic perspective rather than a more rounded understanding of development.

**The research breadth and depth**

Within the realm of economic analysis, this research only examines the production activities in the economy and does not cover the consumption activities. The theories employed by this research are all based on industrial activities. Though there are arguments that industrial activities are the primal dynamics of territorial development, consumption activities (such as real estate, tourism, exhibitions, and sports events) are also indispensable parts of the economy (Markusen and Schrock 2009). In China, the real estate sector is one of the economic mainstays. The new round of urbanisation initiatives also targets domestic consumption to boost economic growth. At the same time, local consumption activities can have direct impacts on the industrial sectors, as the tensions between land use for real estate speculation and industrial expansion are evident (Cartier 2001). The omission of consumption activities in economic analysis is a limitation of this research.
The conceptualisation of economic linkages in this research has not gone into great depth on certain issues. For example, this research has only taken a functional perspective towards interpersonal interactions. Such a functional perspective is premised on all interaction serving a need in problem solving, which basically indicates that people only interact to take advantage of each other, even though this research does argue that certain functional interactions lead to successful problem solving. The functions of certain relations in problem solving could be a mere by-product, while the actual mechanism of that relation could be outside the rational processes of problem solving. For example, kinship ties could facilitate low cost and informal transactions but we cannot say kinship ties are built for these functional transactions. Therefore, for further development, there is a need to go deeper into the nature of human relations and interactions, which involves more understanding of the wider social and cultural contexts of relations as well as the cognitive and psychological processes of interactions.

The methodological issues

Due to time and money budgets and many other practical constraints, there are several methodological issues that might limit the research. First, it is regrettable that this research has not had the opportunity to interview certain ‘key personnel’, especially high level officials and elite entrepreneurs. Thus, this research did not gain access to certain people in key decision making processes. This is a common problem of doing research in China. Second, a critical part of the empirical data was collected through interviews. The interviewees give answers based on their subjective experiences, perceptions, preferences, and memories. Though this research has made efforts to include different data sources to triangulate and cross-check these answers, there might still be errors in them. Also, the empirical data was all in Chinese. The nuances of meanings in Chinese terms may be lost in
translation to English. Third, the two case studies in this research are confined to more developed coastal regions in China. This research did not cover successful development cases in inland regions, which might produce alternative development models which offer different policy implications for China’s urban-rural integration.

**Future research agenda**

Based on the aforementioned discussions, the agenda set out for future research is built around two interdependent themes: the enhancement of the Learning-based TES and the expansion of empirical studies. The former deals with the highlighted conceptual issues in the Learning-based TES that future research needs to resolve, including the value of development, the cognitive and psychological processes of human rationality and relations, and the integration of social, cultural and territorial contexts. The latter aims to provide broader and more thorough application of the Learning-based TES, including exploring alternative development models, explaining development activities in more complex spatial entities rather than small towns, such as city-region, large metropolitan area, etc., and delivering richer and more abundant empirical materials by gaining access to senior officials and entrepreneurs and using other data collection methods such as participant observation and extracting data from non-fictional literature (e.g. biographies and documentaries).
Bibliography


319


Author. (2001). From "parent" to "servant": words of Feng Runsheng, Mayor and Party secretary of Shunde. *Xinhua Newspaper*


annexation and the reorganization of local governments in the Yangtze River Delta.
Regional Studies, 40(1), 3-21.

Asian Survey, 739-756.

Zhao, S. X. & Zhang, L. (2007). Foreign direct investment and the formation of global city-
regions in China. Regional Studies, 41(7), 979-994.

Zhao, Y. (1999). Leaving the countryside: rural-to-urban migration decisions in China. The

Zhou, Y. (2005). The making of an innovative region from a centrally planned economy:
institutional evolution in Zhongguancun Science Park in Beijing. Environment and
Planning A, 37(6), 1113-1134.

Zhou, Y. & Ma, L. J. (2003). China's urbanization levels: Reconstructing a baseline from the
fifth population census. The China Quarterly, 173, 176-196.

Zhu, J. (2004). Local developmental state and order in China's urban development during

Zhu, Y. (2014). The institutionalisation of consultative democracy and local
administration innovation: the experience and implication of Shunde Consulting
Committee (协商民主的制度化与地方治理体系创新：顺德决策咨询委员会制度

Zonneveld, W. & Stead, D. (2007). European territorial cooperation and the concept of


Appendixes

Appendix A Key statistic indicators reviewed and data sources

<table>
<thead>
<tr>
<th>Economic indicators</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP/GDP per capita</td>
<td>National, provincial, and local statistics yearbooks</td>
</tr>
<tr>
<td>Total industrial output</td>
<td>Published reports by government departments</td>
</tr>
<tr>
<td>Industrial output by sector</td>
<td>National, provincial, and local five year plans</td>
</tr>
<tr>
<td>GDP/Industrial output by ownership</td>
<td>Official statistics websites</td>
</tr>
<tr>
<td>Fixed investment</td>
<td>Other sources</td>
</tr>
<tr>
<td>Government fiscal income</td>
<td></td>
</tr>
<tr>
<td>Import and export value</td>
<td></td>
</tr>
</tbody>
</table>

Source: By author
Appendix B Key Documents collected for Kunshan case

| Brochures | China Kunshan Business Incubator for Overseas Chinese Scholars  
Kunshan Economic and Technological Development Zone  
TusPark Kunshan technology park  
TusPark Suzhou technology park  
Kunshan Industrial Technology Research Institute  
siRNA Biotechnology Research Institute  
Intelligent Robot Engineering Research Institute  
Industrial Robot Research Institute  
Public service Platform for informatisation of SMEs in Suzhou  
Service centre for public technology of mould industry in Kunshan  
Kunshan Software Park  
Kunshan German Industrial Park  
Goodbaby Holding Group  
Duke Kunshan University |
|---|---|
| Economic and industrial policies | Kunshan municipal government  
28 measures to improve soft environment of investment in Kunshan, 1998  
Five-Year Plans (FYPs) for Kunshan  
The 12th FYP for human resource development in Kunshan  
Notice on Preferential policies for oversea talents  
Guides on promoting industrial upgrading and economic restructuring  
The 12th FYP for Hi-tech Development zone  
Notice on action plans for high skill talents  
Guides on construction and promotion of technological innovation system  
Guides on attracting and concentrating high-level talents  
Guides on specialised fund for industrial development  
| Suzhou municipal government | Notice on designation of technological SMEs  
Notice on promotion of SMEs  
Notice on designation of industrial bases of specialised clusters  
Notice on promotion of Headquarter Economy |
| Jiangsu provincial government | FYPs of Jiangsu  
Notice on designation of technological SMEs  
Notice on promotion of SMEs  
Notice on designation of industrial bases of specialised clusters  
Notice on Preferential policies for oversea talents  
Guides on fastening industrial upgrading and economic restructuring |
| Regional and Master plans of Kunshan  
Master plans of Suzhou |
<table>
<thead>
<tr>
<th>urban plans</th>
<th>Plans of urban system in Jiangsu Provinces (2012-2030)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plans of new urbanisation and urban-rural integration in Jiangsu (2014-2020)</td>
</tr>
<tr>
<td></td>
<td>Strategic Regional Plan of Yangtze River Delta</td>
</tr>
</tbody>
</table>

Source: By author
### Appendix C Key Documents collected for Shunde Case

<table>
<thead>
<tr>
<th>Brochures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shunde Industrial Service and Innovation Centre (Shunde ISIC) - export guide</td>
<td></td>
</tr>
<tr>
<td>Shunde ISIC-Business Model Innovation Manual</td>
<td></td>
</tr>
<tr>
<td>Shunde ISIC-Service Guide</td>
<td></td>
</tr>
<tr>
<td>Shunde ISIC-Public investment and financing service platform service guide</td>
<td></td>
</tr>
<tr>
<td>Foshan Sino-German Industrial Service Zone</td>
<td></td>
</tr>
<tr>
<td>South Wisdom Valley</td>
<td></td>
</tr>
<tr>
<td>Shunde Eco-industrial Starting Zone</td>
<td></td>
</tr>
<tr>
<td>Shunde Leliu Hardware Innovation Service Centre</td>
<td></td>
</tr>
<tr>
<td>Shunde Chencun Industrial Design City Development Zone</td>
<td></td>
</tr>
<tr>
<td>Shunde industrial design research institute</td>
<td></td>
</tr>
<tr>
<td>South China (Shunde) Home Appliance research institute</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic and industrial policies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FYPs of Shunde</td>
<td></td>
</tr>
<tr>
<td>Adjusting the proportion and promoting the growth of CBE, 1979</td>
<td></td>
</tr>
<tr>
<td>Applications for conducting experimental reforms in Shunde, promoting the economic growth, 1992</td>
<td></td>
</tr>
<tr>
<td>Incredible achievement, shocking burden, 1993</td>
<td></td>
</tr>
<tr>
<td>On shifting the mechanism, trial regulations on developing mixed- ownership economy, 1993</td>
<td></td>
</tr>
<tr>
<td>Study on strategies of urban upgrading and new-type urbanisation in Shunde, 2012</td>
<td></td>
</tr>
<tr>
<td>Bulletins on environmental quality in Shunde, 2009-2015</td>
<td></td>
</tr>
<tr>
<td>Trial Regulations on Consulting Committee for Public Decision-making, 2010</td>
<td></td>
</tr>
<tr>
<td>Notice on implementation of enterprise promotion projects (Longteng Project)</td>
<td></td>
</tr>
<tr>
<td>Notice on implementation of SME promotion projects (Xingguang Project)</td>
<td></td>
</tr>
<tr>
<td>Notice on management of innovation support fund</td>
<td></td>
</tr>
<tr>
<td>Notice on support fund for technological upgrading of SME</td>
<td></td>
</tr>
<tr>
<td>Notice on Expert Committee for project evaluation for subsidies</td>
<td></td>
</tr>
<tr>
<td>Notice on strategic fund for brand promotion</td>
<td></td>
</tr>
<tr>
<td>Notice on attracting high-level human resources</td>
<td></td>
</tr>
<tr>
<td>Notice on designation of technology incubation and subsidies</td>
<td></td>
</tr>
<tr>
<td>Notice on support fund for Intellectual property development</td>
<td></td>
</tr>
<tr>
<td>Notice on support fund for integration of information and industrialisation</td>
<td></td>
</tr>
<tr>
<td>Notice on support fund for employment-creation venture</td>
<td></td>
</tr>
<tr>
<td>Notice on designation of venture park and subsidies</td>
<td></td>
</tr>
<tr>
<td>Notice on promotion of Internet of Things Industry</td>
<td></td>
</tr>
<tr>
<td>Notice on promotion of e-Commerce Industry</td>
<td></td>
</tr>
</tbody>
</table>
| Guangdong provincial government | Guides on industrial bases for strategic emerging industries  
|                               | Guangdong specialised town technological innovation trial implementation plan, 2000  
|                               | Notice on support fund for service platform of specialised towns  
|                               | Notice on promoting and directing private investment  
|                               | Notice on financial support for technology SMEs  
|                               | Guides on industrial design industry  
|                               | The 12th FYP for strategic emerging industries  
|                               | Guides on promotions of key private enterprises  
|                               | Notice on action plan for integration of information and industrialisation  
|                               | Notice on action plan for promotion of advanced manufacturing  

| Regional and urban plans | Master plan of Shunde (2008-2020)  
|                         | Master plan of Foshan (2012-2020)  
|                         | Plan of coordinated development of urban agglomeration in PRD  
|                         | Reform and development plans for PRD  
|                         | Report on urban upgrading and new urbanisation of Shunde  

Source: By author
## Appendix D Distributions of key interviewed organisations among towns

<table>
<thead>
<tr>
<th>County-level units</th>
<th>Township-level units</th>
<th>Key Interviewed organisations</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kunshan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yushan</td>
<td></td>
<td>Kunshan Industrial Technology Research Institute; Kunshan National Hi-tech Innovation Service Centre; Kunshan Economic and Technological Development Zone (KETD); Kunshan Oversea Talents Venture Park; TusPark (Kunshan) Co., Ltd; Kunshan Office of indigenous innovation, Kunshan Office of specialised industrial bases, Civil Capital Service centre of Kunshan committee of economy and information; Kunshan Duke University</td>
<td>County capital, centre for county-level policy making</td>
</tr>
<tr>
<td>Bacheng</td>
<td></td>
<td>Kunshan Software Park Development Co., Ltd</td>
<td>Emerging industry</td>
</tr>
<tr>
<td>Huaqiao</td>
<td></td>
<td>Kunshan international business park</td>
<td>Modern service industry</td>
</tr>
<tr>
<td>Lujia</td>
<td></td>
<td>Kunshan Goodbaby Holdings Ltd</td>
<td></td>
</tr>
<tr>
<td>Zhangpu</td>
<td></td>
<td>Kunshan German Industrial Park</td>
<td></td>
</tr>
<tr>
<td>Zhoushi</td>
<td></td>
<td>Kunshan Qiaorui Metal Products Co., Ltd; Sapa Extrusion (Shanghai) Ltd.</td>
<td></td>
</tr>
<tr>
<td>Qiandeng</td>
<td></td>
<td>Huanhong Electronics Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Dianshanhu, Jinxii, and Zhouzhuang</td>
<td>N/A</td>
<td>Did not cover as they featured Agriculture and Tourism development</td>
<td></td>
</tr>
<tr>
<td><strong>Shunde</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daliang</td>
<td></td>
<td>Shunde Economy, Science and Technology Bureau; Shunde Development plan and statistics Bureau; Shunde Industrial Service and Innovation Centre</td>
<td>County capital, centre for county-level policy making</td>
</tr>
<tr>
<td>Ronggui</td>
<td></td>
<td>Galanz Enterprises Group Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Leliu</td>
<td></td>
<td>Foshan Shunde Hardware Association; Guangdong Leliu Hardware Industrial Innovation Centre; Economic Promotion Bureau of Leliu Town; Guangdong (Leliu) Hongli Hardware Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Beijiao</td>
<td></td>
<td>Shunde Industrial Design Association; SixVector Design and Consultant Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Lecong</td>
<td></td>
<td>WIOT Technology Group Co., Ltd; Shunde Flagship Store of Zhejiang Nanaholy Furniture Group</td>
<td>Part of Foshan New town development</td>
</tr>
<tr>
<td>Xingtian</td>
<td></td>
<td>Shunde High Technology Industrial Development Zone Administration Committee; Shunde Wisdom Investment Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>Chencun</td>
<td></td>
<td>Foshan (Chencun) Jinyuan Aluminum Products Co., Ltd; Economic Promotion Bureau of Chencun</td>
<td></td>
</tr>
<tr>
<td>Jun’an, Lunjiao, and Longjiang</td>
<td>N/A</td>
<td>unable to cover due to budget constraints</td>
<td></td>
</tr>
</tbody>
</table>

Source: By author
Appendix E Local activities attended

<table>
<thead>
<tr>
<th>Location</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Kunshan  | Suzhou High-level Overseas Talents Venture Exhibition, July 2014  
           | Innovation and Venture Forum of Tsinghua University Alumni Association, July 2014 |
| Shunde   | Industrial Design Innovation Exhibition, May 2014  
           | Consulting committee meeting on new-type urbanisation strategy in Shunde, August 2014 |

Source: By author

Appendix F List of Interviewees in Kunshan

<table>
<thead>
<tr>
<th>Code</th>
<th>Position</th>
<th>Organisations</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS-01-O</td>
<td>Senior Director</td>
<td>Kunshan Industrial Technology Research Institute Co., Ltd (Kunshan ITRI)</td>
<td>Government-owned research institute</td>
</tr>
<tr>
<td>KS-02-O/F</td>
<td>Senior Engineer</td>
<td>Intelligent Robot Engineering Lab of Kunshan ITRI, Kunshan Robotechn</td>
<td>Research lab and private firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intelligent Technology Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>KS-03-O</td>
<td>Senior Engineer</td>
<td>Intelligent Robot Engineering Lab of Kunshan ITRI</td>
<td>Research lab</td>
</tr>
<tr>
<td>KS-04-O/F</td>
<td>Senior Director and Engineer</td>
<td>Advanced Equipment Manufacturing research institute of Kunshan ITRI, Kunshan Weixia Mechanics and Electronics Technology Co., Ltd</td>
<td>Research lab and private firm</td>
</tr>
<tr>
<td>KS-05-F</td>
<td>General Manager</td>
<td>Kunshan PORIMY 3D Printing Technology Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>KS-06-F</td>
<td>General Manager</td>
<td>Taiwan Hsin Yang Technology Corp. specialised in factory automation</td>
<td>Taiwanese private firm</td>
</tr>
<tr>
<td>KS-07-O/G</td>
<td>Senior Director</td>
<td>Kunshan National Hi-tech Innovation Service Centre</td>
<td>Government-owned business service centre</td>
</tr>
<tr>
<td>KS-08-O/G</td>
<td>Senior Director</td>
<td>Kunshan Economic and Technological Development Zone (KETD), Kunshan Overseas Talents Venture Park</td>
<td>Government-owned development zone and industrial park</td>
</tr>
<tr>
<td>KS-09-O/G</td>
<td>Senior Director</td>
<td>Kunshan Overseas Talents Venture Park</td>
<td>Government-owned industrial park</td>
</tr>
<tr>
<td>KS-10-F</td>
<td>General Manager</td>
<td>Kunshan Shengze Technology Co., Ltd</td>
<td>Private firm in Kunshan Overseas Talents Venture Park</td>
</tr>
<tr>
<td>KS-11-F</td>
<td>General Manager</td>
<td>Kunshan Niuzajie e-business technology Co., Ltd</td>
<td>Private firm in Kunshan Oversea Talents Venture Park</td>
</tr>
<tr>
<td>KS-12-O/F</td>
<td>General Manager</td>
<td>TusPark (Kunshan) Co., Ltd</td>
<td>Tsinghua University owned industrial park</td>
</tr>
<tr>
<td>KS-13-O/F</td>
<td>Manager</td>
<td>TusPark (Kunshan) Co., Ltd</td>
<td>Tsinghua University owned industrial park</td>
</tr>
<tr>
<td>KS-14-F</td>
<td>Manager</td>
<td>Shanghai Materials Analysis Technology Inc.</td>
<td>Private firm</td>
</tr>
<tr>
<td>KS-15-G</td>
<td>Senior Director</td>
<td>Kunshan Office of indigenous innovation, Kunshan Office of specialised industrial bases, Civil Capital Service centre of Kunshan committee of economy and information</td>
<td>Government</td>
</tr>
<tr>
<td>KS-16-O/G</td>
<td>Senior Director</td>
<td>Kunshan German Industrial Park</td>
<td>Government-owned industrial park</td>
</tr>
<tr>
<td>KS-17-O/G</td>
<td>Senior Director</td>
<td>Kunshan Software Park Development Co., Ltd</td>
<td>Government-owned industrial park</td>
</tr>
<tr>
<td>KS-18-O/G</td>
<td>Senior Director</td>
<td>Kunshan Software Park Development Co., Ltd</td>
<td>Government-owned industrial park</td>
</tr>
<tr>
<td>KS-19-F</td>
<td>General Manager</td>
<td>Kunshan Qiaorui Metal Products Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>KS-20-F</td>
<td>Manager</td>
<td>Kunshan Goodbaby Holdings Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>KS-21-O</td>
<td>Senior Director</td>
<td>Kunshan Duke University</td>
<td>University</td>
</tr>
<tr>
<td>KS-22-G</td>
<td>Senior Director</td>
<td>Development of Human Resource and Social Security, Kunshan government</td>
<td>Government</td>
</tr>
</tbody>
</table>

Source: By author
### Appendix G List of Interviewees in Shunde

<table>
<thead>
<tr>
<th>Code</th>
<th>Position</th>
<th>Organisation(s)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD-01-G</td>
<td>Senior Director</td>
<td>Shunde Economy, Science and Technology Bureau</td>
<td>Government</td>
</tr>
<tr>
<td>SD-02-G</td>
<td>Senior Director</td>
<td>Shunde Development plan and statistics Bureau</td>
<td>Government</td>
</tr>
<tr>
<td>SD-03-O</td>
<td>Senior Director</td>
<td>Shunde Industrial Service and Innovation Centre</td>
<td>Government funded business service centre</td>
</tr>
<tr>
<td>SD-04-O</td>
<td>Senior Director</td>
<td>Shunde Industrial Service and Innovation Centre</td>
<td>Government funded business service centre</td>
</tr>
<tr>
<td>SD-05-O/G</td>
<td>Senior Director</td>
<td>Shunde High Technology Industrial Development Zone Administration Committee, Economic Development Bureau</td>
<td>Government-owned development zone</td>
</tr>
<tr>
<td>SD-06-F/G</td>
<td>Manager</td>
<td>Shunde Wisdom Investment Co. Ltd</td>
<td>Government-owned firm</td>
</tr>
<tr>
<td>SD-07-O</td>
<td>Senior Director</td>
<td>Shunde Graduate Education Development Centre, Guangdong Shunde Research Institute of Industrial Design</td>
<td>Research institute</td>
</tr>
<tr>
<td>SD-08-O</td>
<td>Secretary</td>
<td>Guangdong Industrial Design Association</td>
<td>Business association</td>
</tr>
<tr>
<td>SD-09-O</td>
<td>Secretary</td>
<td>Shunde Industrial Design Association</td>
<td>Business association</td>
</tr>
<tr>
<td>SD-10-F</td>
<td>Senior Manager</td>
<td>Guangdong Bear Electric Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-11-F</td>
<td>General Manager</td>
<td>Dongfeng Maitian Design Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-12-F/O</td>
<td>Manager, Visiting Professor, Committee member</td>
<td>SixVector Design and Consultant Co., Ltd; Visiting Professor of Tsinghua University; and Committee member of China Industrial Design Association</td>
<td>Private firm; university; and business association</td>
</tr>
<tr>
<td>SD-13-O</td>
<td>Senior Director</td>
<td>Industrial Design Department, Art and Design School, Zhongkai University of Agriculture and Engineering</td>
<td>University</td>
</tr>
<tr>
<td>SD-14-O</td>
<td>Senior Director</td>
<td>Guangdong Leliu Hardware Industrial Innovation Centre</td>
<td>Government funded business service centre</td>
</tr>
<tr>
<td>SD-15-O</td>
<td>Secretary</td>
<td>Foshan Shunde Hardware Association</td>
<td>Chamber of commerce</td>
</tr>
<tr>
<td>SD-16-F</td>
<td>Manager</td>
<td>Guangzhou Guangxue Education Co., Ltd</td>
<td>Private consultancy firm</td>
</tr>
<tr>
<td>Code</td>
<td>Position</td>
<td>Organization</td>
<td>Type</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------</td>
<td>---------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>SD-17-G</td>
<td>Senior Director</td>
<td>Economic Promotion Bureau of Leliu Town (zhen)</td>
<td>Government</td>
</tr>
<tr>
<td>SD-18-G</td>
<td>Senior Director</td>
<td>Bureau of Economic, Scientific and Technological Promotion of Leliu Town (zhen)</td>
<td>Government</td>
</tr>
<tr>
<td>SD-19-G</td>
<td>Senior Director</td>
<td>Bureau of Economic, Scientific and Technological Promotion of Leliu Town (zhen)</td>
<td>Government</td>
</tr>
<tr>
<td>SD-20-F</td>
<td>General Manager</td>
<td>Guangdong (Leliu) Hongli Hardware Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-21-F</td>
<td>General Manager</td>
<td>Guangdong (Leliu) Shizheng Hardware Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-22-O</td>
<td>Senior Director</td>
<td>South China (Shunde) Household Electric Appliance Research Institute</td>
<td>Research institute</td>
</tr>
<tr>
<td>SD-23-F</td>
<td>General Manager</td>
<td>HuangChuang Precision Prototype Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-24-F</td>
<td>General Manager</td>
<td>Guangdong (shunde) Oggi 3D printing Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-25-F</td>
<td>General Manager</td>
<td>Foshan (Shunde) Jiajiale electric appliance Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-26-F</td>
<td>Senior Manager</td>
<td>Galanz Enterprises Group Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-27-F/O</td>
<td>Senior Manager</td>
<td>WIOT Technology Group Co., Ltd</td>
<td>Private industrial park</td>
</tr>
<tr>
<td>SD-28-F/O</td>
<td>Senior Manager</td>
<td>WIOT Technology Group Co., Ltd</td>
<td>Private industrial park</td>
</tr>
<tr>
<td>SD-29-F</td>
<td>General Manager</td>
<td>Shunde Flagship Store of Zhejiang Nanaholy Furniture Group</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-30-F</td>
<td>General Manager</td>
<td>Foshan (Chencun) Jinyuan Aluminum Products Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-31-G</td>
<td>Senior Researcher</td>
<td>Social Affair Committee of Shunde</td>
<td>Government</td>
</tr>
<tr>
<td>SD-32-F</td>
<td>Senior Manager</td>
<td>Guangdong Shunde Huace Business Management Consultancy Co., Ltd</td>
<td>Private firm</td>
</tr>
<tr>
<td>SD-33-O</td>
<td>Scholar</td>
<td>Zhongshan University</td>
<td>University</td>
</tr>
</tbody>
</table>

Source: By author
Participant Information Sheet

(Elite Interview)

You are being invited to take part in a study that explores the economic linkages of small towns in rural regions. This research forms part of a doctoral research study that aims to identify the key actors and processes involved in the establishment and evolution of economic linkages of small towns. Before you decide to participate it is important for you to understand why the study is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

Who will conduct the study?

Mr Miao Qiao

School of Environment, Education and Development, Arthur Lewis Building, University of Manchester,

Manchester, M13 9PL, UK

What is the aim of the study?

The research aims to examine the implications of rapid urbanisation in China for the processes shaping, and the outcomes of, economic linkages of small towns in predominantly rural regions. The research aims to assess the extent and form of change in both internal horizontal economic linkages between small towns and with their rural hinterlands, and external vertical interrelationships with wider metropolitan, regional and national territories.
Economic linkages are in forms of trade linkages, investment flows, technology transfers and inter-organisational organisational partnerships.

Why have I been chosen?
You qualify for participation in the study because you have been identified as an elite actor in local economy development. The study seeks to involve as many of the elite actors as possible. The researcher Miao Qiao through desk research compiled the initial list of potential participants and this has been added to by speaking to other elite actors, who were asked to provide assistance by nominating other important stakeholders. Your name was added to the list during one of these processes and you will also get the opportunity to nominate other people whom you consider important for us to include.

What would I be asked to do if I took part?
You will be interviewed to discuss your role, views and experiences. In the interview you will be asked to nominate up to three other important and influential stakeholders of local economic activities who you believe it will be useful for Miao Qiao to speak to.

What happens to the data collected?
Your data will be used to understand the key issues currently impacting on the local economy. This data will then be analysed to develop a deeper understanding about processes and changes of local economic development.

How is confidentiality maintained?
Firstly, personal information will be kept in a safe and locked location, which only the researcher will have access to. Secondly, all electronic data will be encrypted by the University of Manchester, will be password-protected and will be kept in a safe place. Thirdly, real names of participants will be replaced with pseudonyms during the data analysis
stage and when using direct quotations in the PhD thesis or other publications. The identity and specific nature of the project will also be anonymised. Anonymised data will be kept for up to 10 years.

**What happens if I do not want to take part or if I change my mind?**

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason.

**Will I be paid for participating in the study?**

No payment is offered for your participation.

**What is the duration of the study?**

The interview will take 60-90 minutes.

**Where will the study be conducted?**

You will be free to complete the questionnaire at your own leisure. Interviews will be conducted at your offices or a mutually agreed venue.

**Will the outcomes of the study be published?**

The results of the study will be disseminated in the form of a PhD dissertation. However, it is also anticipated that findings will be presented at conferences and published in peer-reviewed academic journals.

**Contact for further information**

If you have any questions you would like answered, please feel free to contact any member of the research team:
Researcher: Mr Miao Qiao                     Supervisor: Prof. Cecilia Wong

Email: charles.jarvis@manchester.ac.uk       Email: Iain.deas@manchester.ac.uk

Tel: +44 (0)161 275 0422                     Tel: +44 (0)161 306-6689

School of Environment and Development,       Humanities Bridgeford Street, Planning (Rm
Arthur Lewis Building, University of         1.43), School of Environment and
Manchester,                                    Development, University of Manchester,

Manchester, M13 9PL, UK                   Manchester, M13 9PL, UK

What if something goes wrong?

If there are any issues regarding this research that you would prefer not to discuss with
members of the research team, please contact the Research Practice and Governance Co-
ordinator by either writing to 'The Research Practice and Governance Co-ordinator, Research
Office, Christie Building, The University of Manchester, Oxford Road, Manchester, M13
9PL, UK, by emailing: Research-Governance@manchester.ac.uk, or by telephoning +44
(0)161 275 7583 or 275 8093.
Appendix I  Consent form

CONSENT FORM  
(Elite Interview)

If you are happy to participate please complete and sign the consent form below.

1. I confirm that I have read the attached information sheet on the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.

2. I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason.

3. I understand that the interviews will be audio recorded.

4. I agree that any data collected may be passed only to other members of the research team.

5. I agree that any data collected may be published in anonymous form in academic books or journals.
I agree to take part in the above project

__________________________________  __________  __________________________
Name of participant                Date          Signature

__________________________________  __________  __________________________
Name of person taking consent       Date          Signature
 Appendix J Participant information and consent form in Chinese

研究数据保密声明

本研究是以“区域一体化下小城镇的经济联系”为主题的学术研究，调研成果将用于完成英国曼彻斯特大学博士毕业论文。本研究将探究小城镇经济参与主体（企业、政府、社会机构等）如何应对宏观区域一体化所带来的政策导向、区位条件、市场环境等因素的变化，研究成果将为政府制定区域政策、城市规划、企业及社会机构发展战略提供决策依据。本研究由乔淼承担，其本科毕业于北京大学城市与环境学院城市规划专业，现为曼彻斯特大学博士研究生。

本研究所采集数据仅由乔淼本人保存使用，所有对访谈对象所提供信息的使用都将匿名处理，本研究成果将用于博士论文写作及学术发表。

如果您有任何疑问，请联系

乔淼
miao.qiao@postgrad.manchester.ac.uk
电话 1326113XXXX

我已阅读以上数据保密声明并同意参与此项研究。

签名_________________________
政府访谈问卷提纲

1. 您理解的本地发展的优势和机会在哪里？
2. 本地已经存在的经济联系是和哪些地区？如何建立起来的？（区域产业一体化）
3. 现状经济联系的质量如何？这些经济联系是否是长期的和稳定的、如何使本地经济受益或受损？
4. 目前有哪些当地的项目或者专项活动正在进行中？
5. 企业和其他中间组织（商会）在其中充当什么角色、发挥什么作用？
6. 重点发掘的是哪些当地资源？（商业环境、基础设施、人才、产业基础、本地消费、配套产业）
7. 项目和活动跟上级政策，规划有什么关系？如何看待上级或者区域规划，目标是否明确、可行，是否容易转化为具体的政策（珠江三角洲发展改革规划－执行方案？）
8. 本地经济发展的目标，战略，规划有哪些？（参考本地发展规划）
9. 哪些经济联系是当地政府着力希望建立和加强的？经济联系的主体是政府还是企业？

企业访谈问卷提纲

企业经营条件

1. 企业是何时建立的？经历了怎样的发展阶段？政府和外资在企业初创阶段有何作用？
2. 企业的生产组织有哪些特点？原料、配件商、员工、技术主要来自哪里？本地还是外地？省内还是省外？
3. 企业和哪些其他企业有合作关系？合作是如何达成的？企业自身规模对合作关系有哪些影响？这些合作关系给企业带来了哪些优势？合作关系的稳定性如何？未来有可能有哪些变化？
4. 有哪些因素会促进或者阻碍企业跟其他本地或外地企业的联系？有哪些非市场因素在其中？（比如行政边界，地方文化规则）

企业与政府、中间服务机构的联系

5. 企业如何看待政府在企业发展过程中的作用？政府哪些政策影响了企业经营？有哪些正作用和反作用。
6. 企业如何看待中间组织在企业发展过程中的作用？（商会、行业协会、创新平台）是否在规范企业市场行为，企业人才引进，产业升级等方面发挥重要作用？

企业发展战略

7. 企业当前的发展目标和战略是什么？考虑多久的未来？是如何制定出来的？

8. 一体化，同城化对企业发展带来了哪些变化？（交通环境的改善，城市建设水平的提高，土地价格的变化）

9. 哪些经济联系（企业间合作，新市场开拓）是企业想要建立的？有哪些将要或者正在实施的计划？

行业组织访谈提纲

行业发展趋势

1. 该行业在顺德 / 昆山是如何发展起来的？经历了怎样的发展阶段？
2. 各发展阶段有哪些关键企业？最关键的发展要素是什么？比如成本优势，技术优势或者管理组织优势
3. 各发展阶段中顺德 / 昆山以及省政府发挥了怎样的作用？有哪些相应的经济和产业政策颁布？这些政策怎样影响了该行业的发展？
4. 该行业的产业组织有哪些特点？（比如产品柔性，垂直一体化程度，企业规模）有哪些配套产业？顺德 / 昆山这个地方为该行业发展提供了哪些区位优势？
5. 该行业在全省、全国以至全球范围内有哪些经济联系？（主要市场所在地；比如原料、资金、技术、人才的来源地；主要合作企业、科研单位所在地；）
6. 全球价值链中处于什么样的地位？有哪些主要的竞争对手？
7. 目前该行业有怎样的发展战略和规划？这个战略规划是如何制定出来的？
8. 针对区域经济一体化，该行业有哪些相应的应对措施？

机构组织特征

9. 该机构是怎样建立的？成员的教育及工作经历？有没有前身？该机构是否存在职能相似的竞争对手组织？
10. 该机构跟政府和企业的交流方式是怎样的？
11. 该机构重大决策的过程是怎样的？政府和企业是如何参与该机构的决策？
12. 该机构是如何参与政府和企业决策的？如何推进技术升级、产学研融合、市场开拓等等？
13. 该机构的发展目标和战略是怎样的？希望在哪些领域拓展自己的影响力，有哪些计划去实现？