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THE LIMITS OF LIBERALIZATION:
SUB-NATIONAL GOVERNMENT AUTONOMY
AND THE AUTO INDUSTRY IN POST-WTO ERA CHINA

By
Seung-Youn Oh

A dissertation submitted in partial satisfaction of the
requirements for the degree of
Doctor of Philosophy
in
Political Science
in the
Graduate Division
of the
University of California, Berkeley

Committee in Charge:

Professor Vinod K. Aggarwal, Chair
Professor T.J.Pempel
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Professor Lowell Dittmer
Professor You-Tien Hsing (Geography)

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THE LIMITS OF LIBERALIZATION:
SUB-NATIONAL GOVERNMENT AUTONOMY AND
THE AUTO INDUSTRY IN POST-WTO ERA CHINA

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By: Seung-Youn Oh

ABSTRACT

The Limits of Liberalization:
Sub-National Government Autonomy and the Auto Industry in Post-WTO Era China

by
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Doctor of Philosophy in Political Science
University of California, Berkeley

Professor Vinod K. Aggarwal, Chair

This dissertation investigates the effects of international linkages on regional economic development in China, with a specific focus on China's burgeoning automotive industry. Whereas most scholars predicted that China's entry into the WTO would increase economic liberalization, I argue that China's WTO entry ironically enabled local governments to gain increased authority and incentives to undermine domestic competition by restricting the Chinese Central government's ability to monitor and control local protectionism. In order to enter the Chinese automotive industry, foreign corporations must form JVs with local governments. These governments frequently manipulate public policy to favor their JV partners over those of neighboring regions. Therefore, China's entry into the WTO has only resulted in what I call "fragmented liberalization," whereby *sub-national* governments selectively adopt measures of liberalization and protectionism rather than wholly adopt liberalizing measures imposed by the WTO on the Chinese Central government. Second, I also contend that multinational corporations are not necessarily the main drivers of liberalization as often assumed in the literature, in that the foreign partners within sub-national JVs foster fragmented liberalization in China. Third, while China has increasingly integrated its economy into the global economy, it has been using state-owned enterprises to promote economic development and industrial upgrading. Yet I find a great deal of variations in the extent to which state-owned enterprises have been able to engage in backward and forward linkages by drawing on their global automaker partners. Thus, understanding the micro-foundations of industrial policy is critical to understanding its impact on the global economy and international institutions. To show this, I conducted a structured comparative case study of three automotive JVs (Shanghai GM, Beijing Hyundai, and First Auto Works-Tianjin Toyota). I collected data through in-depth interviews and the analysis of secondary publications, primary documents and archival materials. I spent 18 months in China and conducted 112 in-depth interviews in Chinese, English, Korean and Japanese. My research highlights the importance of considering industrial policy at the sub-national level precisely because this is the level at which nation-to-nation agreements and national regulations are implemented and reinterpreted on the ground. By examining the interplay of international, national and sub-national politics, I show that international agreements like the WTO have complex effects that are both counterintuitive and heavily dependent on the local context.

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LIST OF ABBREVIATIONS

AMC	American Motor Company
BAIC	Beijing Automotive Industry Company
BJC	Beijing Jeep Corporation
BHMC	Beijing Hyundai Motor Company
DSB	Dispute Settlement Body
FAW	First Auto Works
FDI	Foreign Direct Investment
GPN	Global Production Network
JV	Joint Venture
MNC	Multi-national Company
OEM	Original Equipment Manufacturer
SAIC	Shanghai Automotive Industry Company
SASAC	State-owned Asset Management Commission
SOE	State Owned Enterprise
TAW	Tianjin Auto Works
TRIMs	Trade-Related Investment Measures
WTO	World Trade Organization

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CHAPTER ONE

INDUSTRIAL UPGRADING WITH CHINESE CHARACTERISTICS

INTRODUCTION

Defining the relationship between state institutions and economic growth has been a perennial quest in social science. The rise of China provides a new opportunity to evaluate how late developing countries guide their economic development paths while learning from earlier developers amid extensive globalization. In transforming from a socialist to a capitalist economy, China has followed a developmental path of inviting foreign direct investment (FDI) from the onset of its economic development reforms in 1978, creating a continuing tension between the state's need to shield its infant industry through protectionist measures and its need to integrate into the global economy through pro-competition and pro-liberalization measures. China's foremost goal is to create a policy framework and regulatory environment that best promotes economic learning from other countries' experiences without creating severe dependency.

In this context, both policy makers and academics have grappled to define the mode of interaction between China's long legacy of heavy state intervention in the market and the liberalizing forces of multinational companies' (MNC) entry into China and the country's accession to international legal agreements. Most significantly, when China joined the World Trade Organization (WTO) in 2001, its entry was hailed as a significant step forward in opening up China's markets and curbing governmental practices that placed foreign firms at a competitive disadvantage. China's entry into the WTO raises several questions: How does an emerging economy like China resolve the conflict between a history of state intervention with the strictures of the WTO? To what extent are China's national and sub-national governments willing and able to create a rule-based economy? How does a specific region's interaction with global and local economies in a given sector affect its ability to sustain economic development and promote industrial upgrading?

This dissertation investigates the relationship between Chinese regional economic development and the global economy from a comparative perspective. To accomplish this goal, I undertake a sectoral analysis of China's burgeoning automotive industry, where the Chinese Central government limits foreign enterprises' involvement to JVs with Chinese state-owned enterprises (SOEs). This ownership structure situates China's auto SOEs between multinational global auto firms and Chinese regional governments—effectively rendering SOEs as the mediator between global and local economic forces. In this dissertation, I investigate SOEs' role in mediating and restructuring global-local economic relations through two lines of inquiry: 1) examining the varying modes of SOEs' incorporation into global production networks, and 2) exploring the factors that explain different SOEs' capacity to develop supplier networks.

This chapter proceeds by first discussing the dissertation's empirical puzzle, then explaining the importance of studying the Chinese automotive industry to answer my questions about how the Chinese governments at various levels develop their economy in a globalizing and liberalizing economy. Next, I present a new conceptualization of

global-local linkages in the Chinese case and of China's sub-national governments' role vis-à-vis international legal agreements and MNCs. The fourth section details my research design and provides a summary of my three main Chinese automotive sector cases, my findings, and what contributions these findings make to political science scholarship on this topic. Finally, I preview the core arguments presented in Chapters 2 through 7.

EMPIRICAL PUZZLE: VARIATION IN AUTOMOTIVE JVS' INDUSTRIAL UPGRADING CAPACITY

Once considered the land of bicycles, China has surpassed the United States as the world's largest automotive market and has accounted for more than a 20 percent share of the global automotive market since 2009. The main actors developing the Chinese automotive market are the JV between Chinese SOEs and global automakers. To ensure that China benefits from its relationships with global automakers, the Chinese Central government requires global automakers to form a JV with at most 50 percent of ownership granted to fewer than two Chinese SOEs. Ownership regulations greatly affected the pattern of competition in the Chinese automotive market. For SOEs, its controlling ownership over JVs situates them between Chinese local governments and global automakers. For MNCs, entry mode restrictions constrain two key business considerations of global firms—the mode and timing of entry. Thus, the new tide of reform created an “obligated embeddedness” for foreign automakers, whose integration into the existing political and industrial structure of a given region depended

partly on their Chinese partners' actions.¹ Furthermore, Chinese government heavily focused on developing competitive local suppliers as a way to boost industrial growth, creating employment and modernizing industrial capacity through local content requirements. The success of certain industries largely depends on a broad network of firms and suppliers, the so-called supplier network. Especially in the auto industry, developing supplier network is vital as one automobile consists of more than 20,000 parts and about 70 percent of value comes from components as compared to 15 percent in assembly. Recognizing the importance of developing indigenous parts suppliers, the Chinese Central government puts strict local content requirements on JVs as early as the 1980s. Specifically, it required automotive JVs to purchase or use inputs of domestic origin.

Local content requirements have been extensively discussed in the context of trade, foreign investment, and industrial development. International organizations, in particular the WTO, have strongly attacked these policies, but policy makers in developing countries continue to be firm believers in their potential benefits. In the pre-WTO era China, each JV would face a severe penalty unless it met a localization content rate of 40 percent in the first year of production, 60 percent in the second year, and 80 percent by the third year. Under such a regulatory framework, JVs struggled to meet the

¹ Weidong Liu and Peter Dicken, “Transnational Corporations and ‘Obligated Embeddedness’: Foreign Direct Investment in China’s Automobile Industry,” *Environment and Planning A* 38, no. 7 (2006): 1229 – 1247.

local content requirements either by nurturing Chinese local suppliers or persuading their foreign suppliers to come to Chinese market. In the post-WTO era, the local content requirement has been abolished following WTO's Trade-Related Investment Measures. However, as of 2008, most automotive JVs in China have achieved a local content rate of 90 percent localization or greater—which means the vast majority of their parts are produced within China.

The composition of Chinese automotive JVs' supplier networks, and the degrees to which they include Chinese suppliers, differ dramatically. In this section, I examine the “first-tier” of Chinese auto parts suppliers—Chinese-owned enterprises and JVs between Chinese companies and foreign parts makers. A tier is defined by its transactional distance from the automakers: first-tier suppliers provide parts and inputs directly to assemblers such as Toyota or GM and manufacture the most significant parts for auto assembly—including brakes, engines, chassis, and shafts. First-tier firms are parents of (and subcontract to) second-tier firms, and second-tier firms are parents of (and subcontract to) third-tier firms. Parent firms at each level are responsible for checking the quality and coordinating the flow of parts, materials, and services from the next lower level in a production system organized on the model of an extended family tree. Developing Chinese indigenous suppliers and models (*zizhupinpai*, 自主品牌) has always been the main focus of Chinese industrial policy. The development of local suppliers serves as a proxy indicator of JVs' incremental capacity building and industrial upgrading. When a JV operation uses local Chinese suppliers, it means that local suppliers have significant industrial upgrading capacity and meet global quality standards. In this dissertation, I focus on first-tier suppliers, because I regard the inclusion of Chinese suppliers in the first-tier as a proxy indicator for Chinese suppliers' industrial upgrading capacity.

Interestingly, some JVs (like Shanghai GM) include up to 40 percent Chinese local suppliers, while other JVs (like Beijing Hyundai) have less than 16 percent local suppliers. This is puzzling given that both SOEs and foreign automakers benefit from developing local suppliers. For SOEs, developing local suppliers is not just an economic matter, but also a political one—since it has the potential to generate jobs, foreign exchange, skills and backward linkages. As a large enterprise group, each SOE has approximately thirty to fifty in-group companies and a total of 10,000 to 100,000 employees—and developing strong local suppliers is key to sustaining auto development in their respective regions.² For foreign partners, improving the quality of local suppliers greatly contributes to cost reduction, since 70 percent of an auto's value lies in auto parts and only 10 to 15 percent lies in assembly. Given these circumstances, why do some JVs “thrust” local suppliers up the production ladder and create clear global-local linkages, while other JVs largely remain “stalled” at the low value-added segment of production? As all JVs face similar market conditions in the automotive industry, why do their supply

² As of 2002 data, both Central government owned SOEs of the First Auto Works and Dongfeng each have 100,000 employees. Regionally owned Shanghai Automotive Industry Corporation has 59,000, Beijing Automotive Industry Corporation has 35,000, and Guangzhou Automotive Industry Corporation has 14,000 employees.

networks differ? What factors explain such variations and why do these variations matter?

This dissertation attempts to understand such variations in the context of China's efforts to create global-local linkages and promote industrial upgrading. Examining the variation in automotive JVs' supplier network development will illuminate the Chinese method of promoting industrial upgrading at the sub-national level and the impact of different sources of FDI on local economic development. Moreover, sub-national governments' ability to develop local suppliers demonstrates how they navigate through international and national regulatory environments to develop their own local economy in competition or cooperation with MNCs.

WHY STUDY THE CHINESE AUTO INDUSTRY AND WHY CONDUCT A SECTORAL ANALYSIS?

In analyzing the relationship between Chinese regional economic development and global firms' market strategies, I conduct a sectoral analysis of the Chinese automotive industry. Labeled the machine that changed the world,³ the automobile has remained at the center of one of the most strategic sectors for economic development on account of its impact on job creation and industry capacity building. A fully integrated auto industry generates tens of thousands of manufacturing jobs in assembly plants and auto component factories (in China, one out of every eight jobs was related to the automobile industry in 2003). It also creates extensive production linkages between upstream inputs—steel, petroleum, and machine tools—as well as between downstream affiliates, such as dealerships, repair shops, auto financing, and insurance companies. With its high visibility, the auto industry serves as the most representative sector for explaining different countries' developmental paths in cross-national comparisons: Latin America's "dependent development,"⁴ East Asia's "developmental state" practices,⁵ and Iran's underdevelopment.⁶ As such, studying the Chinese auto sector's development reveals the core characteristics of the Chinese strategy for developing its economy and integrating itself into the global economy.

Second, as a latecomer to the global automotive scene, the Chinese automotive industry serves as an interesting case to examine the delicate interplay of rules at the international, national, and sub-national levels. At the international level, China's accession to the WTO in 2001 reformulated the way that the country implements its tariff regulations and liberalization measures. The WTO compelled the Chinese Central government to lift more than 7,000 trade barriers, grant foreign companies' greater market access, and treat foreign and domestic businesses on more equal terms. At the national level, the Chinese Central government has consciously guided the automotive

³ James P. Womack and Daniel T. Jones, *The Machine That Changed the World: The Story of Lean Production* (New York: Harper Perennial, 1991).

⁴ Peter B. Evans, *Dependent Development: The Alliance of Multinational, State, and Local Capital in Brazil* (Princeton: Princeton University Press, 1979).

⁵ Meredith Woo-Cumings, ed., *The Developmental State* (Ithaca, NY: Cornell University Press, 1999).

⁶ Aliakbar Nikoueghbal and Hassan Valibeigi, "Technology Transfer in Developing Countries, Challenges and Strategies: Case Study of Iran's Auto Industry," *Iranian Economic Review* 10, no. 14 (2005).

sector's developmental path ever since it implemented the country's seventh five-year plan in 1986. In recent decades, the Chinese Central government has created a framework of market and non-market rules for sub-national governments and global automakers by setting ownership regulations, local content regulations, taxation policy, and corporate laws. At the sub-national level, China's provincial and municipal governments implement WTO policies and Chinese Central government regulations in ways they hope will promote a successful automotive industry. The automotive sector is more decentralized and fragmented than other parts of the Chinese economy, as sub-national governments own automakers and attempt to create regional champions.

Lastly, the automotive sector provides the best illustration of the interaction between MNCs and China's sub-national, government-owned enterprises. To ensure that China benefits from its relationships with MNCs, the Chinese Central government has required foreign automakers to form a JV granting at least 50 percent of ownership to no more than two Chinese SOEs. Such ownership regulations have not only affected patterns of market competition, but have also restricted global firms' options regarding two of their most important business strategies—the mode and the timing of their entry into the market. These regulations have rendered SOEs as the node between local and global economic forces. They have also created an “obligated embeddedness” for foreign automakers, whose integration into the existing political and industrial structure of a given region depended partly on their Chinese partners' actions.⁷

The spatial configuration of supply networks and industrial clusters in a given region significantly impact the mode of JVs' integration into the Global Production Network (GPN) and SOEs' economic competitiveness.⁸ Different JVs—between SOEs in different regions and MNCs with varying national origins—develop their supplier networks and localize their production in varied ways. By demonstrating how different regional clusters and industrial districts are incorporated into the GPN, my dissertation demonstrates how 1) sub-national governments serve as a gatekeeper between global economic factors and local industrial upgrading, 2) different factors affect sub-national governments' ability to insert their regional economy into the GPN, and 3) SOEs play an extensive role in mediating and restructuring global-local economic relations. I am especially interested in how certain regions developed their relationship with the global economy and how that process affected specific sectors' industrial upgrading capacity. I focus mainly on industrial upgrading because sustaining economic growth requires a different set of capabilities and strategies than what is required at the initial phase of economic development.

⁷ Liu and Dicken, *Transnational Corporations and 'Obligated Embeddedness'*, 1229 – 1247. Victor F.S. Sit and Weidong Liu, “Restructuring and Spatial Change of China's Auto Industry under Institutional Reform and Globalization,” *Annals of the Association of American Geographers* 90, no. 4 (2000): 653-673.

⁸ Michael E. Porter, “Locations, Clusters, and Company Strategy,” edited by G. Clark, M. Feldman and M. Gertler in *The Oxford Handbook of Economic Geography* (Oxford: Oxford University Press, 2000): 253-274.

CONCEPTUALIZING GLOBAL-LOCAL LINKAGES: THE DOUBLE FORCES OF DEPENDENCY

In promoting economic development, the Chinese Central government has used SOEs (rather than full privatization) as the main driver of globalization. These SOEs, which are owned either by the central or sub-national governments, serve as the node between global and local economic forces. They are in situations that I call “dual dependencies”—where SOEs have to rely both on the local government and global automakers for different resources and assets in order to maintain business operations (Figure 1.1).

The political science literature on global-local linkages helps in the conceptualization of this idea of “dual dependencies.” One useful concept is the *outside-in perspective*, which focuses on global firms’ organizational structures and global strategies and how particular regions “slot into” these networks with varying degrees of impact on industrial upgrading.⁹ However, this approach neglects regional institutions’ considerable impact in the industrial upgrading process and how MNCs’ operations in other parts of the world can be “lost in translation” when the company relocates to countries such as China.¹⁰ MNCs’ traditional “global strategy,” which is formulated in a developed-country context, may not work in emerging markets where institutional contexts are markedly different.¹¹ In emerging markets, government institutions play a particularly important role in MNCs’ FDI decisions. Host governments can alter their policies quickly—and when host countries change their FDI policies, MNCs may need to change their strategies.¹²

Another helpful concept for explaining dual dependencies is the *inside-out perspective*, which focuses on indigenous institutional structures and their ability to “hold

⁹ Gary Gereffi, “Global Commodity Chains: New Forms of Coordination and Control Among Nations and Firms in International Industries,” *Competition & Change* 1, no. 4 (1996): 427-439. Gary Gereffi and Raphael Kaplinsky, “The Value of Value Chains: Spreading the Gains from Globalisation,” Special issue of the *IDS Bulletin*, edited by Gary Gereffi and Raphael Kaplinsky 32, no. 3 (2001).

¹⁰ Gary Gereffi, “The Organization of Buyer-driven Global Commodity Chains: How U.S. Retailers Shape Overseas Production Networks” in *Commodity Chains and Global Capitalism* edited by Gary Gereffi and Miguel Korzeniewicz (Westport, Connecticut: Praeger, 1994), 95-122. Gary Gereffi, “International Trade and Industrial Upgrading in the Apparel Commodity Chain,” *Journal of International Economics* 48 (1999): 37–70. Nicholas A. Phelps and Andrew Wood, “Lost in Translation? Local interests, Global Actors and Inward Investment Regimes,” *Journal of Economic Geography* 6, no. 4 (2006): 493–515.

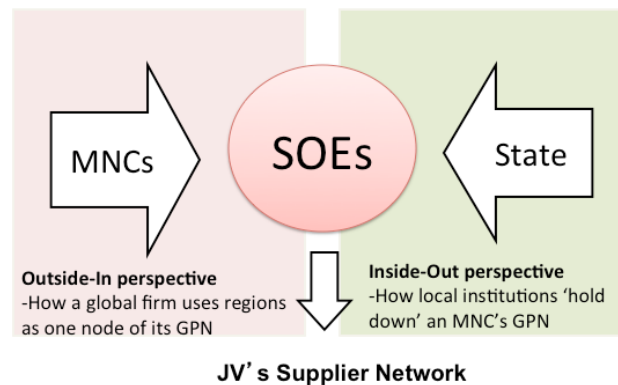
¹¹ Robert E. Hoskisson, Lorraine Eden, Chung Ming Lau, and Mike Wright, “Strategy in Emerging Economies,” *Academy Of Management Journal* 43, no. 3(2000); 249–267. Andrew Delios and Witold J. Henisz, “Political Hazards and the Sequence of Entry by Japanese Firms,” *Journal of International Business Studies* 34, no. 3(2003): 227-41. Mike Wright, Igor Filatotchev, Robert E. Hoskisson, Mike W. Peng, “Strategy Research in Emerging Economies: Challenging the Conventional Wisdom,” *Journal of Management Studies* 42, no. 1 (2005): 1–33.

¹² David W. Loree and Stephen E. Guisinger, “Policy and Non-policy Determinants of U.S. Equity Foreign Direct Investment,” *Journal of International Business Studies* 26, no. 2 (1995): 281-99. Witold J. Henisz and Andrew Delios, “Uncertainty, Imitation, and Plant Location: Japanese Multinational Corporations, 1990-1996,” *Administrative Science Quarterly* 46, no. 3 (2001): 443-75. Chris Changhwa Chung and Paul W. Beamish, “The Impact of Institutional Reforms on Characteristics and Survival of Foreign Subsidiaries in Emerging Economies,” *Journal of management studies* 42, no. 1 (2005): 35–62.

down” global networks.¹³ For example, Weidong Liu and Dicken Peter have studied how MNCs fulfilled “obligated embeddedness” in China by adapting themselves to the existing industrial structure in a given local partner’s territories.¹⁴ Yet this approach places heavy emphasis on domestic conditions and ignores the possibility that MNCs shape the existing industrial structures where they become embedded. Specifically, this view falls short in accounting for 1) why some foreign partners are more successful than others in embedding themselves into a given region’s existing industrial structure and 2) how cooperation between SOEs and foreign partners prior to the formation of a JV affects the mode of obligated embeddedness (e.g., licensing cooperation or the entry of parts suppliers before assembly plants).

In striking a balance between the outside-in and inside-out perspectives, this dissertation situates SOEs as the focal point of interaction between insiders and outsiders in the Chinese economy and explains how these interactions produce different production network configurations and varying degrees of industrial upgrading capacity.

Figure 1.1: Conceptualizing SOEs’ Dual Dependency in Supplier Network Development



My primary dependent variable is China’s automotive JVs’ supplier network configuration—that is, the composition of suppliers as determined by their national origins and ownership structures. Different configurations reveal how SOEs develop their own local suppliers in cooperation or in competition with their JV foreign partners. Three actors deserve our attention in evaluating the development of local passenger vehicle supplier networks in China: 1) sub-national governments, 2) SOEs in the auto sector, and 3) foreign JV partners.

First, Chinese regional governments are most concerned about JVs’ impact on local economic development and potential economic benefits in the form of tax revenue,

¹³ Allen J. Scott, *Regions and the World Economy* (New York: Oxford University Press, 1998). Michael Storper, *The Regional World: Territorial Development in a Global Economy* (New York: Guilford Press, 1997).

¹⁴ Liu and Dicken, *Transnational Corporations and ‘Obligated Embeddedness’*.

GDP growth, and employment. In the longer term, cooperation with MNCs is also expected to yield technology transfer and capacity building to Chinese firms. Therefore, sub-national governments attempt to encourage both Chinese suppliers and regional JVs in their regions through various protectionist policies. Second, SOEs, which are owned and funded by local governments, also generally support the development of local suppliers. However, as SOEs evolve, they develop interests as a business group and face the need to be more competitive. The introduction of competitive market forces pushes SOEs to survive on their own by developing administrative distance from the government. Finally, because all Chinese passenger car development must take the form of a JV, foreign JV partners serve as the third important actor in boosting local Chinese suppliers' industrial capacity building. The Chinese Central government has regulated global automotive firms' most important early market strategies: the mode and timing of their entry into JVs for assemblers and important auto parts markets. These Chinese government regulations mean that foreign auto companies possess little control over selecting a local partner and must embed themselves into the existing local industrial structures and institutions. In addition, China's strict local content requirements rendered the JVs to devise sourcing strategies not just based on business concerns but also based on political concerns. To maximize profits, MNCs tend to pursue supply chain optimization and purchase from suppliers with the best offers or from closely linked in-group suppliers rather than from local Chinese suppliers.

In examining the role different parties play in local supplier development, I focus on three explanatory variables. First, government policy and governing institutions affect the supplier networks development—both of which can demonstrate a government's ability to manage the development process. Examining a government's industrial policy goals and government leaders' incentive structure also helps explain the leadership's willingness to develop a local supplier network. Second, intra-firm structures and inter-firm relations within individual auto-manufacturing groups decide the head office's ability to manage the development process within SOEs. As a large business group, an auto SOE consists of several dozens to several hundreds of auto assembly plants and supply firms under its own roof. The head office of an auto group structures and coordinates relationships among firms (between the assembly plant and suppliers) in its jurisdictions. It channels investment funds to its subsidiaries and oversees their development. The powers of automotive industrial groups vary from city to city, and micro-level institutional factors determine their level of control over firms within the group and their willingness to develop their own local suppliers. The third variable is the way a foreign partner embeds itself into a region's institutional and industrial structures. All of China's passenger car development has taken the form of JVs, where foreign companies have little control over selecting a partner and must embed themselves into existing local industrial structures and institutions. However, my research reveals that pre-JV modes of cooperation between MNCs and SOEs and the path dependency they create are critical for future cooperation.

RESEARCH DESIGN, FINDINGS, AND CONTRIBUTIONS

Overview of Research Design

To trace interactions between sub-national governments and global automakers, I conducted a structured comparison of three automotive JVs in China: Beijing Hyundai, First Auto Works-Tianjin Toyota, and Shanghai GM. I chose these cases for the following reasons. First, they show variation in terms of local supplier network development, allowing me to trace the process of sub-national governmental intervention in the entry and operation of JVs, and the WTO's impact on sub-national industrial policy. This approach reflects the methodological considerations of my project—since the research objective is to explain variations rather than the sameness in the dependent variable; the postulated independent variable should take on values as different from each other as possible. The analytical focus here is on the specific institutional arrangements between SOEs and MNCs in developing supplier networks. Second, I chose these cases because they are representative of other JVs in the Chinese automotive industry that fall within my own postulated categories of industrial upgrading: Shanghai GM represents the SOE-driven approach with a high local presence, Beijing Hyundai represents the MNC-driven approach with a low local presence, and Tianjin Toyota represents the MNC-driven approach with a high local presence. Third, these three cities tend to attract FDI from different partners: Beijing from Korean automakers, Shanghai from American automakers, and Tianjin from Japanese automakers. My research design will help us evaluate the existing debate in the scholarly literature about the impact of FDI's specific national origin on local economic development, the so-called *home-country effect*.

Because this research examines the automotive industry in a single country through intra-national and inter-regional comparisons, I can hold the regulatory environments at the international level (WTO rules) and national level (Chinese Central government laws) constant. This enables me to further investigate how policy implementation varies across regions within one country. Also, the Chinese Central government's regulations on ownership eliminates the importance of MNCs' mode of entry, since all three cases under examination are 50:50 JVs between Chinese regional governments' SOEs and global automakers. Unlike case studies within just one issue area or large-N studies of undifferentiated auto groups, my process-tracing among representative JV models elucidates the extensive role SOEs play in mediating and restructuring global-local economic relations.

In terms of methodology, I conduct analysis both longitudinally (to see how changes take place within a JV) and laterally (to examine how outcomes vary across different cases). During my eighteen months of fieldwork in China in 2009 and 2010, I engaged in a combination of archival research, site observations, and cascade interviews. I conducted a total of 112 in-depth, semi-structured interviews in Chinese, English, Korean, and Japanese. My interviewees included executives and factory-level managers from SOEs, global automakers, and supplier firms of different national origins. I also interviewed government officials at various levels, Chinese scholars, and analysts from auto consulting companies. Interviews with spokesmen from both foreign automakers and local Chinese SOEs helped me understand hidden corporate strategies on lobbying

and sourcing, ways to solve conflicts within JVs, and unofficial, non-recorded local government strategies. These interviews also revealed different perceptions and understandings of JV formation. Interviews with Chinese scholars and leaders of auto consulting and research companies provided me with broader, non-corporate perspectives of China's automotive market growth and supplier network development. Interviewing individuals in various academic, corporate, and non-academic positions also enabled me to crosscheck the information I obtained in my interviews. Moreover, my secondary document research utilizing statistical yearbooks from each city and province, as well as company reports, enabled me to observe overall trends in automotive investment and the development of auto supplier networks in those regions.

Case Studies: Three Models of Managing Dual Dependency for Industrial Upgrading

The Chinese automotive JVs examined in this project are representative cases of each style I developed to explain the varying approaches to industrial upgrading and supply network development. All three cases are strong and successful actors in the Chinese auto market, but the ways they developed supplier networks have varied. In the next section, I provide an overview of three different styles of industrial upgrading: bandwagoning (Beijing Hyundai), pre-clusterization (Tianjin Toyota) and obligated embeddedness (Shanghai GM) (Table 1.1). I also examine one unsuccessful method of industrial upgrading: disintegration.

Obligated embeddedness (state-driven development, with a high local supplier presence) happens when the regional government, with help from MNCs, drives the industrial upgrading process. In this scenario, a regional government has a great capacity and willingness to develop local suppliers by nudging or coaxing foreign JV partners to help establish them. In the process, global automakers embed themselves into existing local institutions. Shanghai GM falls under this category of obligated embeddedness, where the municipal government-owned Shanghai Automotive Industry Corporation invested in co-developing and identifying qualified Chinese suppliers for GM in order to help the foreign company meet local content requirements and settle smoothly into the Chinese market. Shanghai GM now obtains has about 40 percent of its “first-tier” automotive parts through companies that are either Chinese-owned or are Chinese-majority JVs with foreign companies.

Pre-clusterization (MNC-driven development, with a high local supplier presence) is a process where a business group's suppliers and subsidiaries enter an emerging market before the core firm and begin to cluster in the location the core firm is targeting. This approach differs markedly from auto companies' more common “follow-the-flag” approach to market entry. Usually, an automotive business group's suppliers and subsidiaries follow the core firm's lead and start investing in an area after the core firm has established factories. Toyota, for instance, followed this strategy with its entry into Southeast Asia in the 1960s and to the United States in the 1970s. Even after experiencing significant success with network-based foreign entry into Southeast Asia, many suppliers in the Toyota Group had initially been reluctant to relocate to the competitive North American market in the 1980s. Thus, Toyota had to provide parts

suppliers with financial support and introduce them to potential local partners in order to encourage them to enter the U.S. market. Toyota's China story, however, reversed such practices and became a representative prototype of the pre-clusterization strategy. Toyota's major affiliated parts-manufacturing subsidiaries formed a virtual assembly plant by entering the Chinese market before the parent company. This was because when Toyota developed its interest in the Chinese market in the mid-1990s, the Chinese government announced a five-year moratorium for assembly JVs. Thus Toyota had to bear the status of absolute late entrant to the market. But the pre-clusterization of Toyota's suppliers, in the form of JVs with Chinese parts companies, significantly contributed to the Chinese suppliers' industrial upgrading capacity, thereby enabling Chinese suppliers to participate in Toyota's relatively closed supplier network. Among Toyota's 104 parts suppliers, about 16 percent of its "first-tier suppliers" are either Chinese-owned or Chinese-majority JVs with foreign partners.

Bandwagoning (MNC-driven development with fewer local suppliers) happens when a foreign JV partner essentially controls the process of network development and the regional government wields less control over the sourcing strategy. In this type of development, exemplified by Beijing Hyundai, the foreign JV partner can transplant its supplier network from its home country, thereby spending less time and effort in identifying or developing Chinese local suppliers. The Beijing Municipal government allowed Hyundai Motor to bring its suppliers from Korea to China by abandoning the goal of developing indigenous parts companies. Such a strategy not only contributed greatly to Beijing Hyundai's high localization rate, but also enabled Hyundai to expedite its adjustment to the Chinese market and initiate production more quickly.

Disintegration (state-driven development, with fewer local suppliers) occurs when the regional government has a weak capacity to develop the local supplier network despite its desire to do so. Most auto SOEs that lack clear ties to MNCs fall under this category, and they suffer from low-quality products and an inability to create economies of scale. Most JVs in this category represent failures to enter the Chinese market, including Beijing Jeep Corporation (a JV between Beijing Automotive Industry Company and American Motor Company) from 1984 to 1999 and Guangzhou Peugeot from 1986 to 1997. In both of those cases, the local government blindly imposed local content requirements without providing any policy support for the development of local suppliers. The government relegated the obligation of developing local suppliers to these JVs' foreign partners, and neither American Motor nor Peugeot wanted to use Chinese suppliers. They were only interested in using cheap Chinese labor to assemble imported, ready-to-manufacture car models (known as "knockdown kits"). Such tension over localization and the forced use of local suppliers not only damaged the health of these JVs, but also hampered cooperative relations between JV partners. This dissertation does not directly deal with this category of "disintegration," as it does not include any successful examples of JVs creating industrial upgrading and global-local linkages in the context of supplier network development.

Table 1.1: Summary of Overall Findings

Joint Ventures	Beijing Hyundai	Tianjin Toyota	Shanghai GM
Type	Bandwagoning	Pre-clusterization	Obligated Embeddedness
Local content	96%	92%	90%
Number of tier one suppliers	120	108	200
Chinese suppliers in tier one	16%	23%	40%
Existing industrial structure	Weak manufacturing Base	Strong heavy industry base	Strong heavy industry base
Year of passenger vehicle production	2002 with Hyundai	1986 with Daihatsu	1985 with Volkswagen
IV 1: Relationship to the state	Centralized	Fragmented	Fragmented
IV 2: Relationship within the SOE	Centralized	Centralized	Fragmented
IV 3: Relationship to FDI	JV	Technology licensing/ JV	JV
IV 4: Cooperation prior to JV	No	Technology licensing with Daihatsu	No

Summary of Findings

My dissertation investigates SOEs' regional supplier network development within Chinese automotive JVs. My research started with the belief that capacity building and incremental local supplier development serve as alternative measures for SOEs' performance within JV cooperation. Even though they do not have independently successful models outside of their JV brands, some SOEs are developing their Chinese local suppliers and bringing them into the orbit of JV production.

In explaining the variation in how Chinese automobile SOEs build their industrial capacity within the framework of JVs, I make three central claims. First, I find a great deal of variation in the extent to which SOEs have been able to engage in backward and forward linkages by drawing on the expertise and knowledge of their MNC partners. I argue that the formation of supplier networks and the efficacy of local supplier development in China's auto industry depend not only on local institutional factors, but also on SOEs' ability to juggle their "dual dependencies" on local governments and foreign partners. Evolving SOE reform provides opportunities for SOEs to reconfigure these dual dependencies—not only by altering their administrative ties with local governments, but also by using their bargaining power vis-à-vis foreign partners. By identifying SOEs' different modes of incorporation into the global production network,

my dissertation shows the extensive role SOEs play in mediating and restructuring global-local economic relations in China's auto industry. Some SOEs develop cooperative mechanisms within JVs to foster local industrial upgrading. Others delay or altogether derail local industrial upgrading by creating inter-regional or intra-regional competition among suppliers, fragmenting the supplier network and often igniting tensions with the SOE's foreign partner.

Second, in examining the impact of China's accession to the WTO on the country's liberalization and industrial capacity building, I argue that while the WTO constrains the Chinese Central government, sub-national governments retain significant autonomy. Ironically, by restricting the Chinese Central government's ability to monitor and control local protectionism, China's WTO entry has enabled local governments to protect their industries. Furthermore, the WTO's pro-market rules have helped local governments engage in subtle anti-competitive practices at the sub-national level by providing preferential treatment to foreign JV partners. Under these arrangements, foreign companies provide SOEs (and thus, local governments) with technology and capital, while local governments manipulate public policy to ensure favorable market conditions for their JV partners against JVs that are based in other provinces. I call this process of market manipulation "fragmented liberalization"—namely, the process where *sub-national* governments selectively adopt measures of liberalization and protectionism rather than adopting all of the liberalizing measures the WTO has imposed on the Chinese Central government.

Lastly, in evaluating developing countries' strategy of inviting FDI from the early stage of economic development, I contend that MNCs are not necessarily the main drivers of liberalization. Scholars such as Jeffrey Frieden and Helen Milner argue that the rise of export lobbying groups promotes liberalization in countries where they operate.¹⁵ Instead, I find that MNCs often covertly *support* local governments' protectionist measures if they favor an MNC's preferred form of market entry and strategy within the country. Thus, understanding the micro-foundations of industrial policy is critical to understanding industrial policy's impact on the global economy and international institutions.

CONTRIBUTIONS

Although my study focuses on a cross-provincial comparison within a single country, its implications extend beyond the national borders of China. My focus on the interactions among global automakers, sub-national governments, and SOEs allows me to look at the intersection of comparative political economy and international political economy.

Most importantly, examining SOEs' role in mediating local and global economic forces sheds new light on the existing scholarship on Chinese studies and international political economy in the following ways. For comparative political economy, my sectoral

¹⁵ Jeffrey Frieden, "Invested Interests: The Politics of National Economic Policies in a World of Global Finance," *International Organization* 45, no. 4 (1991): 425-451. Helen Milner, *Resisting Protectionism: Global Industries and the Politics of International Trade* (Princeton: Princeton University Press, 1988).

focus sheds light on the Chinese auto industry's unique developmental path of inviting foreign investment, which stands in stark contrast to the paths pursued by Latin America and East Asian developmental states like Japan and Korea. Mexico's auto industry was produced through "dependent development"¹⁶ and dominated by foreign MNCs, while Korea's developmental state model¹⁷ approach to its auto industry has led to the establishment of one national champion – Hyundai/Kia (which controlled 72 percent of the Korean auto market as of the late 1990s). China, meanwhile, has followed a route somewhere between these two approaches—by matching a Chinese partner with a foreign partner in the form of JV.

From an international political economy perspective, my work shows what kind of operational strategies sub-national governments can pursue in integrating into the global economy and how sub-national level compliance with international rules explains the course of liberalization better than the Chinese Central government-level compliance in a fragmented and decentralized country like China. As a latecomer to the global auto markets, China provides an interesting venue to examine the interplay of rules at the international, national, and regional levels. I especially highlight how China's regional governments have reinterpreted the inter-state agreements of the WTO when implementing policy, and outline the operational strategies available at the regional level in an emerging economy. In short, my research highlights the importance of considering industrial policy at the sub-national level precisely because this is the level where nation-to-nation agreements and national regulations are implemented and reinterpreted. By examining the interplay of international, national, and sub-national politics, I show that international agreements like the WTO have complex effects that are both counterintuitive and heavily dependent on local contexts. Sub-national governments, in alliance with SOEs and their foreign partners, often thwart the liberalizing effects of international and national regulations. In these interactions, MNCs are hardly the consistent champions of economic liberalization that they are often taken to be, but rather ally with sub-national actors to support local protectionism. This phenomenon of "fragmented liberalization" is relevant not only to China, but also to other emerging economies that share China's fragmented economic structure and reflect the dominance of state-owned enterprises in key economic sectors.

Further, my study reveals the impact of external actors on the development of corporate and economic governance in a host region and how these sub-national entities interact with the governments at various levels through FDI flows. When government regulation constrains two of the most important strategies for MNCs—entry mode and entry timing—what other operational strategies are available to global automakers? Do they transport existing assembler and supplier relationships to the foreign market, or do

¹⁶ Peter Evans, *Dependent Development*, 55-100. Rich Kronish and Kenneth S. Mericle (ed.), *The Political Economy of the Latin American Motor Vehicle Industry* (Cambridge, Massachusetts: The MIT Press, 1984). Gabriel Palma, "Three and a Half Cycles of 'Mania, Panic, and [asymmetric] Crash': East Asia and Latin America compared," *Cambridge Journal of Economics* 22 (1998): 789-808. Victor Bulmer-Thomas, *The Economic History of Latin America Since Independence* (Cambridge University Press, 2003).

¹⁷ Chalmers Johnson, *MITI and the Japanese Miracle* (Stanford University Press, 1982). Alice H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (Oxford: Oxford University Press, 1989). Woo-Cummings, *The Developmental State*.

they develop a hybrid supplier model depending on the institutional context of the foreign country? By tracing the interaction between foreign partners and Chinese partners within JV partnerships, this study reveals how different institutional factors impact MNCs' strategies.

This dissertation also examines the advantages, if any, of being an earlier versus later entrant to a foreign market. Some scholars argue that early movers in an industry can achieve better performance by benefiting from technological leadership, preemptive possession of scarce assets, and the establishment of entry barriers for latecomers.¹⁸ Others point out possible disadvantages of early movers, such as forfeiting better opportunities that may surface later or establishing contracts for inadequate resources—both of which create junk costs.¹⁹ The performance of Chinese automotive JVs has produced mixed results in this regard: the three earliest entrants followed three different routes: Shanghai Volkswagen has been the most successful JV since 1985, while Beijing Jeep and Guangzhou Peugeot stumbled and exited the Chinese market in 1999 and in 1997 respectively.²⁰ My research pays particular attention to how different foreign automakers have embedded themselves into local industrial structures and institutions, such as Toyota's pre-clusterization and Hyundai's follow-the-flag strategies. This approach sheds light on whether foreign automakers of different national origins attempt to externalize their own intra-firm networks, inter-firm relationships, and state-industry relations across national borders (the so-called "home country effects").

Lastly, my work sheds light on the ongoing debate about China's mode of integration into the global economy. Edward Steinfeld argues that while Chinese firms are integrating extensively within the global economy, it is a shallow form of integration involving labor-intensive manufacturing.²¹ On the other hand, Eric Thun suggests that Chinese domestic companies and MNCs are fighting for the middle ground.²² In other words, domestic firms endeavor to upgrade their industrial capacity to escape the intense competition at the bottom of the value-added chain while MNCs seek to decrease costs in order to capture the rapidly growing markets. In this project, I specifically show that

¹⁸ Roger A. Kerin, P. Rajan Varadarajan, and Robert A. Peterson, "First-Mover Advantage: a Synthesis, Conceptual Framework, and Research Propositions," *Journal of Marketing* 56, no. 4 (1992): 33–52.

Yadong Luo and Mike W. Peng, "First Mover Advantages in Investing in Transitional Economies," *Thunderbird International Business Review* 40, no. 2 (1998): 141–163. Hoskisson, *Strategy in Emerging Economies*. Delios and Henisz, *Political Hazards*. Chung and Beamish, *The Impact of Institutional Reforms*. Wright, *Strategy Research in Emerging Economies*

¹⁹ Marvin B. Lieberman and David B. Montgomery, "First-mover (dis)advantages: Retrospective and Link with the Resource-based View," *Strategic Management Journal* 19, no. 2 (1998): 1111–1125.

²⁰ In 1997 Peugeot sold its stake in the JV to Honda, after losing tens of millions of dollars annually since 1995.

²¹ Edward Steinfeld, "China's Shallow Integration: Networked Production and the New Challenges for Late Industrialization," *World Development* 32, no. 11 (2004): 1971–1987. Shulin Gu even says that "China as a whole has not moved to the stage of being able to create distinctively specialized competitiveness in the international market beyond labor-intensive manufactures. "Transformation and Recombination Learning in the NIS of China," in *1st Globelics Conference*. Rio de Janeiro, Brazil (2003): 14. Shulin Gu, "China's Industrial Technology: Market Reform and Organizational Change," *The China Quarterly*. London and New York: Routledge in association with UNU Press, no. 160 (1999): 1065-1067.

²² Eric Thun and Loren Brandt, *The Fight for the Middle: Upgrading, Competition, and Industrial Development in China* (University of Toronto, Department of Economics Working Paper, 2010).

SOEs and MNCs' "fight for the middle" plays out differently in different context and facilitates different types of supply networks.

ORGANIZATION OF THE DISSERTATION

The modes of industrial upgrading and supplier network development vary across the three cases examined in the dissertation. Throughout the following chapters, I will show that both local institutional structures and foreign JV partners' national origins can affect the creation of global-local linkages in different localities. My case studies help trace the linkages among China's macro-level governance of institutions governing the auto industry, micro-level governance of firm structures at the SOE level, and global automakers' mode of engaging in local industrial and political structures. They also highlight how automotive JVs navigate (or often subvert) rules made at the international and the Chinese Central government levels in order to succeed in the most competitive auto market in the world.

The dissertation is organized as follows. Chapter 2 situates China's auto industry development and the issue of industrial upgrading among Chinese firms within the scholarly literature on development, foreign direct investment, industrial upgrading, and economic liberalization. My approach to this task is to examine the overlooked importance of sub-national governments' industrial policies and their interactions with FDI from different countries. This chapter evaluates how sub-national governments serve as a gatekeeper between global economic factors and the local industrial upgrading, and what forces affect their ability to insert their regional economy into the global production network. I also detail the theoretical and empirical significance of studying the auto industry in China as a way to understand Chinese regional governments' interaction with the global economy in the context of industrial upgrading.

Chapter 3 outlines my conceptual framework as well as my research design. I detail my dependent variable (supplier network configuration within automotive JVs), three explanatory variables, and explain why examining this variation matters. I also evaluate the actors responsible for parts localization in China's auto industry—local governments, SOEs' head offices, and foreign JV partners. In so doing, this chapter outlines four different models of creating local-global linkage in developing a supplier network.

Chapters 4 through 6 analyze my three in-depth case studies from China's auto industry. Chapter 4 introduces a case of bandwagoning, where a Chinese local government and an SOE gave a foreign JV partner tremendous leeway to develop a supplier network. The chapter examines automotive industry development and supplier network development in Beijing, with special emphasis on the Beijing Jeep Corporation from 1982 to 1999 and Beijing Hyundai from 2002 to 2011. Learning from the failure of its first JV with the American Motor Company, the Beijing Municipal government and its protégé Beijing Automotive Industry Company enabled Hyundai to bring its supplier network from Korea. This relatively pro-MNC strategy was facilitated by China's entry into the WTO, which bestowed new autonomy on the Beijing Municipal government.

Chapter 5 introduces another mode of creating global-local linkages: the MNC-driven approach. It explains why and how Tianjin Toyota achieved pre-clusterization and

a relatively high level of industrial upgrading, despite the relatively exclusive nature of supplier network development of Japanese automakers. In Chinese automotive industry development history, Tianjin serves as an interesting case where the Tianjin government-owned auto SOE started its interaction with foreign investors through a technology licensing agreement with the Japanese small carmaker Daihatsu in 1986 instead of forming a JV. This relationship eventually evolved into a JV between Tianjin Automotive Industry Company and Toyota in 2000. Because of Toyota's status as an absolute latecomer to the Chinese market in 2000, Toyota used an idiosyncratic strategy of taking the majority of Daihatsu's share as a way to get access to Daihatsu's Tianjin operation and assist its suppliers. These circumstances explain Tianjin Toyota's model of MNC-led, development with a significant role for local suppliers.

The last case study of Chapter 6 traces Shanghai GM's development of a supply network, which represents a case of local government-driven glocalization. Shanghai's Municipal government not only actively pursued various industrial policies to develop the region's auto parts suppliers, but also developed a hierarchical institutional structure governing the auto industry, which gave it greater capacity to channel capital and monitor the sector's development. Following the path of a local developmental state, the Shanghai government supported their JV partners' efforts to nurture and identify local suppliers while nudging them to establish a technology center in the region. GM set especially high new standards for technology cooperation with a Chinese partner by establishing the Pan-Asia Technical Automotive Center with SAIC for engineering support. This center not only contributed to Shanghai's local supplier development, but it also put enormous pressure on other global automakers such as Volkswagen to increase their research and development activities in China and provide up-to-date models. As a result, Shanghai became the strongest auto supplier base in China and created a relationship of "obligated embeddedness" with foreign automakers.

Lastly, Chapter 7 revisits my findings in light of economic liberalization processes in China after its entry into the WTO in 2001 and in the context of *fragmented liberalization*, the process where *sub-national* governments selectively adopt measures of liberalization and protectionism rather than wholly adopting the liberalizing measures the WTO has imposed on the Chinese Central government. As I consider whether my findings still hold for other sectors and other countries, I also explore the inherent limitations of the WTO as a state-to-state agreement and introduce my ideas for future research.

CHAPTER TWO INDUSTRIAL POLICY BEYOND THE NATION STATE

INTRODUCTION

In a globalizing economy, one of the key tasks for the emerging economy is how to build global-local linkages in a way to best promote local economic development. More than a century ago, Alexander Gerschenkron discussed the vital role of a strong state to jump-start economic development and catch up to the earlier developers.²³ However, such advice needs to be tweaked for the contemporary emerging economies that develop their economies in a globalized and interdependent world. Some scholars argue that the state in general has retreated in the face of global economy where new actors of MNCs and supranational organizations relegate the powers of nation-state and restrict state's room to maneuver.²⁴ Thomas Friedman, for example, argues that the globalization makes the world flat and governments had to don the golden straitjacket of market discipline.²⁵ On the other hand, Robert Wade²⁶ and Linda Weiss²⁷ contend that states are alive and resilient more so than ever as gatekeepers between the global and the national economy. Even economists at the World Bank including the chief economist, Justin Yinfu Lin, argue for the importance of industrial policy and the role of the state in guiding the competitiveness of economy.²⁸

As we can see from the existing debates, the story of economic development has often been told from the perspective of the nation-state. The standard literature in international and comparative political economy places the nation-state as the main unit of analysis and explains variation in developmental outcomes as a consequence of differences in domestic state institutions, patterns of industrial policy, historical occasion as well as position in the global economy—the 'varieties of capitalism' approach being the main example.²⁹ China's economic development in the past three decades since the Open Door Policy challenges us to rethink the strategy of late developers as well as the role of governments in a globalizing economy.

²³ Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, MA: Belknap Press of Harvard University Press, 1962).

²⁴ Susan Strange, *The Retreat of the State: The Diffusion of Power in the World Economy* (Cambridge: Cambridge University Press, 1996).

²⁵ Thomas L. Friedman, *The Lexus and the Olive Tree: Understanding Globalization* (New York: Farrar, Straus, and Giroux, 2000).

²⁶ Robert H. Wade, "What Strategies Are Viable for Developing Countries Today? The World Trade Organization and the Shrinking of 'Development Space'," *Review of International Political Economy* 10, no. 4 (2003): 621–644.

²⁷ Linda Weiss, "Global Governance, National Strategies: How Industrialized States Make Room to Move under the WTO," *Review of International Political Economy* 12, no. 5 (2005): 723–749.

²⁸ Justin Lin and Ha-Joon Chang, "Should Industrial Policy in Developing Countries Conform to Comparative Advantage or Defy it? A Debate Between Justin Lin and Ha-Joon Chang," *Development Policy Review* 27, no. 5 (2009): 483–502.

²⁹ Peter A. Hall and David Soskice, eds. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001).

First of all, China has followed a distinctive development path compared to other late developers in Latin America and East Asia by deeply integrating into the global production network from the beginning of its economic development. Such a strategy successfully brought about China's first transformation to a market economy and attracted considerable amounts of FDI since the 1980s. Academically, this approach generated scholarly debates regarding the categorization of China as a hybrid developmental state and attempted to identify the function of the government. In so doing, Sinologists greatly contributed to the discourse of development by emphasizing not just the roles of the central authority but also those of sub-national governments.³⁰ As an important reform measure since 1980s, the Chinese Central government decentralized the economic decision-making power to the provinces and cities, while distributing extraction rights to lower political authorities. By occupying multiple roles as entrepreneur, pioneer and local developmental state, the sub-national governments were responsible for the successful first transformation, while the Chinese Central government provided the framework for growth and endorsed successful models.³¹ And the literature discussing the role of sub-national governments in promoting Chinese local economic development contributed to the political economy literature by changing the unit of analysis to sub-national (provincial and municipal) levels and examining developmental strategies on the basis of the needs and objectives of each sub-national unit.

Building on such insights, this dissertation demonstrates how sub-national governments serve as gatekeepers between the global economic factor and the local industrial upgrading, and what affects their ability to insert their regional economy into the global production network (GPN). In understanding the link between the regional development and the GPN, I am especially interested in how a given region developed its relationship with the global economy and how that would affect the capacity of industrial upgrading in its specific sectors. I focus mainly on industrial upgrading because sustaining growth requires a different set of capabilities and strategies than that required at the initial phase of economic development. Here, industrial upgrading is defined as “the process by which economic actors— nations, firms, and workers—move from low-value to relatively high-value activities in global production networks,” or “continuing modernization and upgrading of technology, equipment and organization.”³²

³⁰ For the developmental roles of Chinese central and sub-national governments, please see Jonathan Unger and Anita Chan, “China, Corporatism and the East Asian Model,” *The Australian Journal of Chinese Affairs*, no. 33 (1995): 29-53. Jean Oi, *Rural China Takes Off: Institutional Foundations of Economic Reform* (Berkeley, CA: University of California Press, 1999). Jae Ho Chung, ed. “Preferential Policies, Municipal Leadership, and Development Strategies,” *Cities in China: Recipes for Economic Development in the Reform Era* (London: Routledge, 1999). Marc Blecher and Vivienne Shue, “Into leather: state-led development and the private sector in Xinji,” *The China Quarterly* 166 (2001): 368–393.

³¹ The Chinese Central governments ex-post endorsed successful policy experiments attempted by newly emancipated local leaders and claim credit for their foresight and work to legislate the experiments nationally. If the experiments turn out to be duds, the central government can always punish local leaders for usurping authority.

³² Gary Gereffi, “The Global Economy: Organization, Governance, and Development,” in *The Handbook of Economic Sociology*, edited by Neil J. Smelser and Richard Swedberg (Princeton, NJ: Princeton University Press and Russell Sage Foundation, 2005), 171.

Both developed and developing countries seek to move up the global production value ladder. However, for China, industrial upgrading poses a greater challenge because of its unique developmental path. From the onset of its economic development, China has followed a distinctive development path compared to other late developers in Latin America and East Asia by deeply integrating into the global production network. Such a strategy successfully brought about China's first transformation to a market economy and attracted considerable amounts of FDI since the 1980s, mostly in the form of labor-intensive sunset industries. It has earned China nicknames such as "the heaven of cheap labor," "the world manufacturer," and "the magnet of FDI." Since the mid-2000s, the Chinese Central government strived to reconfigure its developmental path by encouraging industrial upgrading of Chinese indigenous companies. The 11th Five-year plan (2006-2010)³³ reset China's economic goals and policy orientation; what once was considered to be a quantity-over-quality, race to the bottom, and region-focused policy now aspires to be a quality-over-quantity, race to the top, and sector-focused policy. Adopting a "scientific approach" to "construct a harmonious society," the 11th Five-year plan attempts to promote high value-added industries and encourage industrial capacity building of domestic companies.³⁴

Most industrial sectors in China are inter-linked with FDI in some ways. Some industrial segments are "trapped-in" labor-intensive segments and struggle due to deficiencies in technologic or managerial know-how whereas other segments increase its value by trying to "[hook] into" the GPN. Here, I define GPN as a globally organized nexus of interconnected functions and operations through which goods and services are produced and distributed. The fact that a region is plugged into the GPN does not guarantee its positive developmental outcome because actors in this region may not be able to capture much of the value created in the region. What matters more is "how" they are plugged into the GPN. Steinfeld argues that Chinese firms are integrating extensively with the global economy yet shallowly in the labor-intensive industries.³⁵ Gu even states that "China as a whole has not moved to the stage of being able to create distinctively specialized competitiveness in the international market beyond labor-intensive manufactures."³⁶ On the other hand, Thun suggests that Chinese domestic companies and MNCs are "fight[ing] for the middle" whereby domestic firms endeavor to upgrade their

³³ The 11th Five-year plan puts forward six priorities: 1) bringing about a change in the mode of economic growth; 2) readjusting and optimizing the industrial structure; 3) bringing about coordinated regional development; 4) intensifying the building of a harmonious society; 5) addressing the three agricultural issues; and 6) promoting the sound development of urbanization.

³⁴ Such goal reflects the mounting pressure on Chinese system which will not dissipate without profound change as worsening pollutions and labor exploitation fires grassroots activism and complaints from possible incoming high-end foreign invested enterprises as well. See Alexandra Harney, *The China Price: the True Cost of Chinese Competitive Advantage* (New York, NY: Penguin Group, 2008).

³⁵ Edward Steinfeld, "China's Shallow Integration: Networked Production and the New Challenges for Late Industrialization," *World Development* 32, no. 11 (2004): 1971-1987.

³⁶ Shulin Gu, "China's Industrial Technology: Market Reform and Organizational Change," *The China Quarterly*. London and New York: Routledge in association with UNU Press, no. 160 (1999): 1065-1067.

industrial capacity to escape the intense competition at the bottom while MNCs seek to decrease costs in order to capture the rapidly growing markets.³⁷

The Chinese auto industry has been under the radar of the central and regional authorities as a way to promote industrial upgrading and develop indigenous Chinese companies. However, this sector produced a much different assessment over its developmental trajectories ranging from the complete dependent development on foreign side to the Chinese catching up to the foreign automakers. Such existing lacunae partly reflect the changing nature of the automotive industry in an emerging market of China and complexity of the game. In academia, there exist various levels of evaluation of the efficacy of China's industrial policy and the government role and its protégé of SOEs in auto sectors.

This chapter begins by exploring the theoretical and empirical significance of studying the auto industry in China as a way to understand Chinese governments' interaction with the global economy in the context of industrial upgrading. I will then introduce my empirical and theoretical puzzles in detail. The next section will explore the existing literature's answer to my puzzles on the varying capacity of SOE's ability for industrial upgrading by drawing on MNCs. This chapter builds on the literature in development studies, FDI, and industrial upgrading by examining the overlooked importance of sub-national government level industrial policies and their interactions with different national origin of FDI.

THE CHINESE AUTO INDUSTRY AND INDUSTRIAL UPGRADING

In analyzing the relationship between Chinese regional economic development and the strategy of global firms, I conduct a sectoral analysis of the Chinese automotive industry. What is the value of a sectoral analysis? As Peter Evans suggests, a sectoral lens can allow one not only to theorize about a particular sector but also to sharpen general ideas about state structures and its roles in shaping possibilities for industrial transformation.³⁸ Then why did I choose the auto industry? First of all, labeled as the machine that changed the world,³⁹ the automotive industry remains one of the most strategic industries for national economic development in view of its potential for job creation and industrial capacity building. A fully integrated auto industry undoubtedly generates thousands of manufacturing jobs in assembly plants and auto component factories (in China, one out of every eight jobs was related to the automobile activity in 2003).⁴⁰ It also creates extensive production linkages between upstream inputs—steel, petroleum and machine tools—as well as downstream affiliates such as dealerships, repair shops, auto financing and insurance companies. It is not an overstatement to say

³⁷ Eric Thun and Loren Brandt, *The Fight for the Middle: Upgrading, Competition, and Industrial Development in China*, University of Toronto, Department of Economics Working Paper, 2010.

³⁸ Peter Evans, *Embedded Autonomy: States and Industrial Transformation* (Princeton, NJ: Princeton University Press, 1995).

³⁹ James P. Womack and Daniel T. Jones, *The Machine That Changed the World: The Story of Lean Production* (New York: HarperPerennial, 1991).

⁴⁰ Hua Wang, "Policy Reforms and Foreign Direct Investment: The Case of the Chinese Automobile Industry," *Journal of Economics and Business* 6, no. 1 (2003): 287–314.

that no country has succeeded in building an automotive industry without government involvement and the use of industrial policy. Certainly, China is no exception. At the national level, the Chinese Central government designated the automotive sector as a pillar industry in the 7th five-year plan in 1986 and consciously guided its developmental path by following the Japanese and Korean model of creating national champions and backward linkages. Such natural visibility of the sector makes the auto industry as the representative sector of understanding different developmental paths of countries in cross-national comparison settings: Latin America’s “dependent development”,⁴¹ East Asia’s “developmental state” practices,⁴² and Iran’s underdevelopment (Table 2.1). As such, studying the development of the Chinese auto sector shows the core characteristics of China’s approach to developing its economy and integrating itself into the global economy at the national level and potentially cross-national level.

Table 2.1: Varieties of Development Modes: Cross National Comparison

Country	FDI policy	Access to Capital	Outcome	Model
Mexico	Open	Full	Complete foreign dominance of auto industry	Dependent development
Japan Korea	Closed	Limited	Domestically-owned auto industry, globally competitive	Developmental state
Iran	Closed	Closed	Domestically-owned, underdeveloped auto industry	Isolated underdevelopment
China	Managed (JVs)	Limited (SOEs)	Shared market between JVs and local firms	Authoritarian liberalism

Empirically, the Chinese auto sector received much attention from academic researchers and policy makers due to its rapid growth and unique developmental path. Once considered the land of bicycles, China has surpassed the United States as the world’s largest automotive market and has accounted for more than a 20 percent share of the global automotive market since 2009 (Figure 2.1).⁴³ The main actors developing the Chinese automotive market are the JVs between Chinese SOEs and global automakers. To ensure that China benefits from its relationships with global automakers, the Chinese Central government requires global automakers to form a JV with at most 50 percent of ownership granted to fewer than two Chinese SOEs.

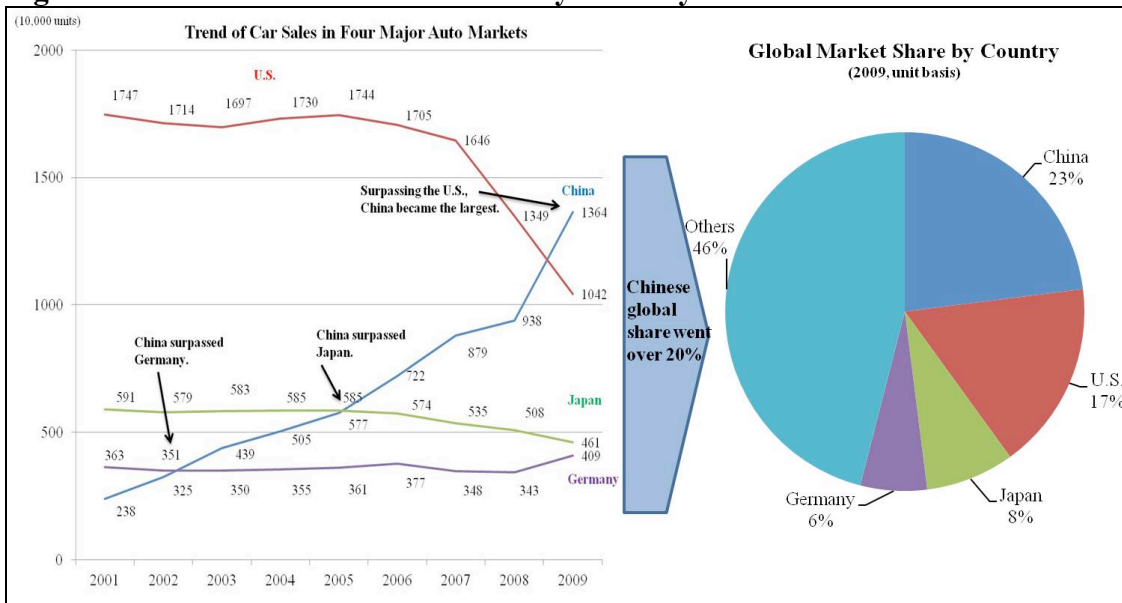
⁴¹ Peter Evans, *Embedded Autonomy: States and Industrial Transformation*.

⁴² Chalmers Johnson, *MITI and the Japanese Miracle* (Stanford, CA: Stanford University Press, 1982).

Alice H. Amsden, *Asia’s Next Giant: South Korea and Late Industrialization* (Oxford: Oxford University Press, 1989). Woo-Cumings, ed., *The Developmental State* (Ithaca, NY: Cornell University Press, 1999).

⁴³ In 2003, China overtook Germany to claim the third largest market, subsequently overtaking Japan in 2006 to claim second place. Finally, in 2009, China surpassed the U.S., where the total of 10.42 million vehicles were sold, reaching the total of 13.64 million to become the world’s largest automotive market.

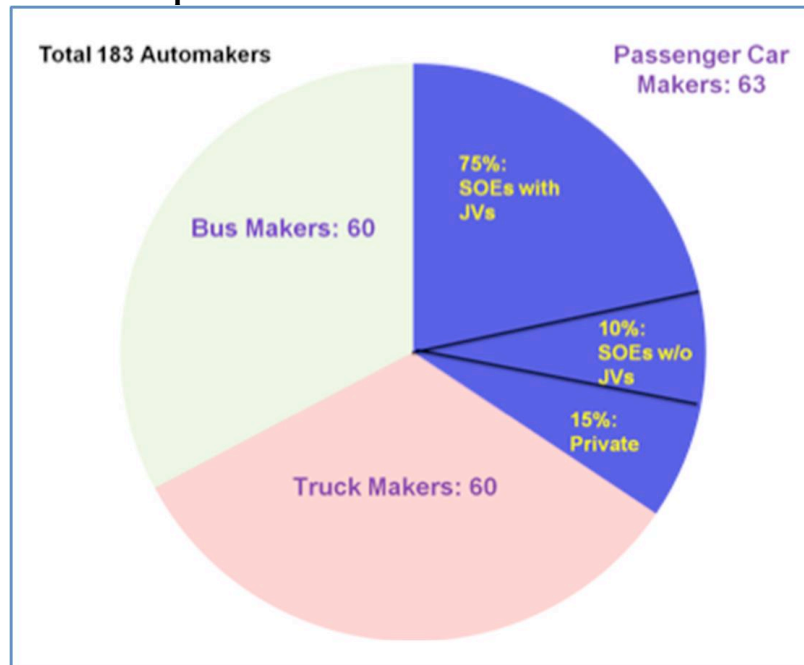
Figure 2.1: Global Auto Market Share by Country in 2009⁴⁴



As Figure 2.2 demonstrates, the Chinese automotive market is extremely fragmented with a total of about 180 automakers, sixty-three of which make passenger cars. The passenger car market is the most profitable and promising opportunity for foreign investors, as China traditionally has a strong bus and truck-making background due to its socialist-era economic reforms. JVs between MNCs and SOEs, which represent 75 percent of China’s sixty-three passenger carmakers, have captured 65 percent market share as of 2010.

⁴⁴ “Understanding the Chinese Automotive Industry for 2010,” Energy2Forum.
<http://e2af.com/trend/100317.shtml>.

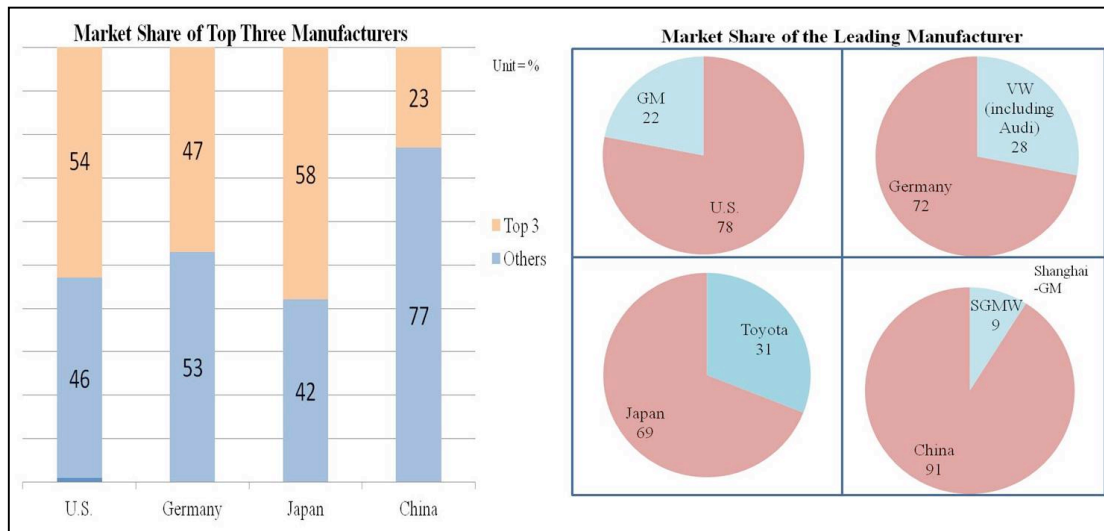
Figure 2.2: Automaker Composition in China in 2009 ⁴⁵



Another aspect of China's fragmented auto market is shown in the comparison of market share of the top three manufacturers (Figure 2.3). In the U.S., the top three automakers account for over 50 percent of market share, where the leader, GM takes up about 22 percent. On the other hand, in China there exists no single dominant player; the top three automakers consist of more than a quarter of market share, and the leading automaker of Shanghai GM takes up about 9 percent. The Chinese market is indeed a highly competitive market where all of the world's major automakers and the 200 largest global auto parts makers operate.

⁴⁵ Internal document from JETRO-Shanghai. The document was obtained through the interview with a researcher at Japan External Trade Organization in Shanghai (May 14, 2009).

Figure 2.3: Comparison of Market Share of the Leading Auto Manufacturer in 2009



Historically, China's auto developmental path differs from that of Japan and Korea, in the following aspects. First, it highlights roles played by sub-national governments.⁴⁷ Chinese bureaucratic and industrial structures are extremely fragmented compared to those of Japan and Korea. Historically, Mao Zedong's "Self Reliance" (*ziligengsheng*, 自力更生) policy during the Cultural Revolution in the 1960s implored each province to build at least one automotive factory as an import-substitution measure. This policy, however, failed to emphasize actual productivity or economies of scale. It created extremely splintered market conditions, with 130 automakers and 2,000 to 3,000 parts manufacturers in China during the late 1980s.⁴⁸ In these conditions of extensive local autonomy, some sub-national governments served as "local developmental states" that created regional champions, while other governments plunged into stagnation.⁴⁹

⁴⁶ "Understanding the Chinese Automotive Industry for 2010," Energy2Forum.

<http://e2af.com/trend/100317.shtml>.

⁴⁷ For active roles of sub-national governments in the market, please see Jean Oi, *Rural China takes off: Institutional Foundations of Economic Reform* (Berkeley, CA: University of California Press, 1999). Gabriella Montinola, Yingyi Qian, and Barry R. Weingast, "Federalism, Chinese Style: The Political Basis for Economic Success in China," *World Politics* 48, no. 1 (1995): 50– 81. Jae Ho Chung, "Preferential Policies, Municipal Leadership, and Development Strategies," in *Cities in China: Recipes for Economic Development in the Reform Era* (London: Taylor & Francis Group, 1999). Jae Ho Chung, *Central Control and Local Discretion in China* (New York, NY: Oxford University Press, 2000).

⁴⁸ For fragmented bureaucracy, see Kenneth Lieberthal and Michael Oksenberg, *Policy Making in China* (Princeton, NJ: Princeton University Press, 1988). Kenneth Lieberthal, "Introduction: the 'Fragmented Authoritarianism' Model and its Limitations," ed. K. Lieberthal and D. Lampton, et al., *Bureaucracy, Politics, and Decision Making in Post-Mao China* (Berkeley, CA: University of California Press, 1992). Chung, *Preferential Policies*. Chung, *Central Control*.

⁴⁹ Yasheng Huang, "Between Two Coordination Failures: Automotive Industrial Policy in China with a Comparison to Korea," *Review of International Political Economy* 9, no. 3 (2002): 538-573. Eric Thun,

Second, China invited global automotive companies in the form of JVs with the Chinese auto companies owned by the government, which allows us to see the interaction between Chinese local SOEs and MNCs. Up until the early 1980s, China followed a similar “go-it-alone” strategy like Japan and Korea with regard to FDI in auto industry.⁵⁰ However, its failure to consolidate the auto industry allowed China to seek FDI as an instrument to solidify the biggest SOEs’ market positions and to weed out smaller firms. Also, by the late 1970s, the Chinese automotive bureaucrats had realized the necessity of modernizing their industry’s production capabilities. This step was needed, among other reasons, to stem the tide of imported vehicles, mostly from Japan. Any foreign manufacturer was potentially a good source of much needed technology and managerial skill. In the early 1980s when China’s auto industry opened to foreign investors, its R&D capability in the passenger vehicle sector was weak. While Japan and Korea were closed to foreign automakers, China’s reform-minded leaders, including Zhao Ziyang and Zhu Rongji, invited foreign automakers to consolidate the country’s fragmented and inefficient automotive industry beginning in 1984.⁵¹ In 1987, a strategic meeting of the Cabinet laid the groundwork for national development by directing the shift from trucks to passenger vehicles, encouraging more JVs with foreign auto firms.

To ensure the benefits of MNC’s presence, the Chinese Central government required foreign automakers to form a JV with a maximum 50 percent of ownership to be shared with no more than two Chinese SOEs (Table 2.2). Ownership regulations greatly affected the pattern of competition in the Chinese automotive market. For SOEs, their controlling ownership over JVs situates them between Chinese local governments and global automakers. For MNCs, entry mode restrictions constrain two key business considerations of global firms—the mode and timing of entry. Thus, the new tide of reform created an “obligated embeddedness” for foreign automakers, whose integration into the existing political and industrial structure of a given region depended partly on their Chinese partners’ actions.⁵² Therefore, this sector reveals the impact of external actors on China’s domestic economic development from the host country’s perspective and the impact of foreign corporations in JV with governments at various levels.

Changing Lanes in China: Foreign Direct Investment, Local Government, and Auto Sector Development (New York, NY: Cambridge University Press, 2006).

⁵⁰ Huang, *Between Two Coordination Failures*.

⁵¹ *Ibid*, 546.

⁵² Weidong Liu and Peter Dicken, “Transnational Corporations and ‘Obligated Embeddedness’: Foreign Direct Investment in China’s Automobile Industry,” *Environment and Planning A* 38, no. 7 (2006): 1229 – 1247.

Table 2.2: China's Major JV Automotive Assemblers⁵³

Start of production	Enterprise	Local Partner	Model
1984	Jeep (American Motor)	Beijing	Cherokee, Grand Cherokee
1985	Volkswagen	Shanghai	Santana, Passat, Polo
1991	Suzuki	Chang'an	Alto, Cultus
1991	Volkswagen	First Auto Works	Jetta, Audi, Bora, Golf
1992	Citroen	Shenlong (Dongfeng)	Citroen ZX, Picasso
1996	Nissan	Dongfeng	Bluebird, Teana
1997	General Motors	Shanghai	Buick, Sail
1998	Honda	Guangzhou	Accord, Fit
1999	Kia	Dongfeng Yueda	Pride, Qianlima
1999	General Motors	Jinbei	GR8
1999	Fiat	Nanjing	Paleo, Siena
2000	Toyota	Tianjin FAW	Corolla, Vios
2001	Ford	Chang'an	Fiesta, Mondeo, Focus
2002	Hyundai	Beijing	Sonata, Elantra
2003	Honda	Dongfeng	CR-V
2004	Benz-DaimlerChrysler	Beijing	Mercedes Benz
2004	Toyota	Guangzhou	Camry
2007	Daimler	Fujian	Mercedes-Benz Viano, Vito, SPV

The number of auto firms increased from 53 in 1976, before the reform, to 114 in 1985, to 122 in 1995, settling at 117 in 2004. This fragmented industrial structure caused the Chinese Central government to recognize the need for a consolidation policy to improve productivity and economy of scale. In 1987, the Chinese Central government designated the “Big Three and Small Three (*Sanda Sanxiao*, 三大三小)” (Table 2.3). The big three include the First Auto Works in Changchun, the Second Auto Works in Hubei, and the Shanghai Automotive Industry Corporation, while the three small players refer to Beijing, Guangzhou and the Tianjin Automotive Corporation. The three small firms had already established significant capacity in compact cars. This policy was to consolidate the industry around six firms but it turned out to be futile. In the 1990s, the government revised the policy again to add Chang An Automobile Corporation and Guizhou Aviation Industry Corporation, the two military-related automakers that were backed by the Central ministries and specialized in subcompact cars under pressures from the military. Thus the policy became known as the “Big Three, Small Three and Tiny Two”. The plan aimed to call for increasing passenger car output to 40 percent of vehicle production by the year 2000. The auto industry was targeted by top leaders, such as Jiang Zemin and

⁵³ Compiled by the author from press releases, company websites, and automotive industry yearbooks.

Zhu Rongji, as the priority sector for restructuring in 1992. Both of them served in the auto industry with much knowledge about the need for consolidation and nurturing of the local suppliers.⁵⁴

Table 2.3: Big Three, Small Three, Tiny Two Policy in 1987

Category	Name	Ownership	JV partner
Three Big	First Auto Works	Machinery and Industry Bureau	Volkswagen
	Dongfeng	Machinery and Industry Bureau	Honda
	Shanghai Auto Industry Company	Shanghai Municipal Government	Volkswagen, GM
Three Small	Beijing Auto Industry Company	Beijing Municipal Government	Daimler Chrysler, Hyundai
	Tianjin Auto Industry Company	Tianjin Municipal Government	Daihatsu
	Guangzhou Auto Industry Company	Guangdong Provincial Government	Honda
Two Tiny	Changan Auto Industry Company	Military Machinery Bureau	Suzuki, Ford
	Guizhou Air Company	Ministry of Aviation and Spaceflight	Fuji Heavy Industry

The 1994 automotive industrial policy renewed its consolidation effort by outlining more targeted financial steering to support large automotive firms and setting up entry barriers such as stringent assets and capacity requirements for start-up companies (Table 2.4). Investment was only officially encouraged in the Big Three to seek FDI as a way to solidify their market positions and to weed out smaller firms. This was intended to restrict the passenger car production to incumbent firms already with some ‘first mover’ advantage, either in car or truck and bus manufacturing capabilities and to convert large single-vehicle firms into multi-vehicle firms. These consolidation efforts were reaffirmed again in June 2001 in another effort to consolidate China’s sprawling automotive industry in preparation for China’s membership in the WTO.

⁵⁴ Gregory Chin, *China’s Automotive Modernization: The Party-State and Multinational Corporations* (London: Palgrave Macmillan, 2010).

Table 2.4: Summary of the Automotive Industry Policy 1994⁵⁵

1. Policy Objectives	To open up domestic and foreign markets; promotion of large scale production; concentration of the industry, eliminating small scale, dispersed operations
2. Product Approval	Automotive enterprises must submit future product plans for approval; products which are not approved cannot be sold, imported or used
3. Enterprise Organization	Formation of automotive industry groups to attain critical mass; state support for enterprises which exceed certain production volumes and R&D effort
4. Technology Policy	Encouragement of independent product development
5. Investment Policy	Encouragement of automotive enterprises to raise development funds from various sources; trans-regional and trans-departmental investment to support increased industry concentration
6. Foreign Investment Policy	Encouragement of joint ventures with foreign partners who meet certain conditions (e.g. technology must be 1990s standards; R&D facilities must be established; foreign partner must have independent product patents and trademarks, and have a good-capital raising ability)
7. Import Management Policy	Restriction of imports; entry points limited to four seaports; prohibition of imports of used vehicles
8. Export Management Policy	Expansion of exports as production rises; priority loans for enterprises whose exports exceed 3-8% of annual sales volume for passenger cars
9. Localization Policy	Prohibition of knock-down kits; preferential tax rates for enterprises with high localization rates
10. Consumption and Pricing Policy	Encouragement of individual ownership of automobiles; prices of civilians vehicles (except saloons) to be decided by enterprises according to market demand. Prices of saloons to follow the state guide price.
11. Policies on Related Industries and Social Insurance	Co-ordination and development of supporting industries (metals, materials, capital equipment, electronics, rubber, plastics and glass). Infrastructure development
12. Industry Policy Planning and Project Management	Localities and departments to support the Industry Policy; no new complete car facilities to be approved during 1994-1995

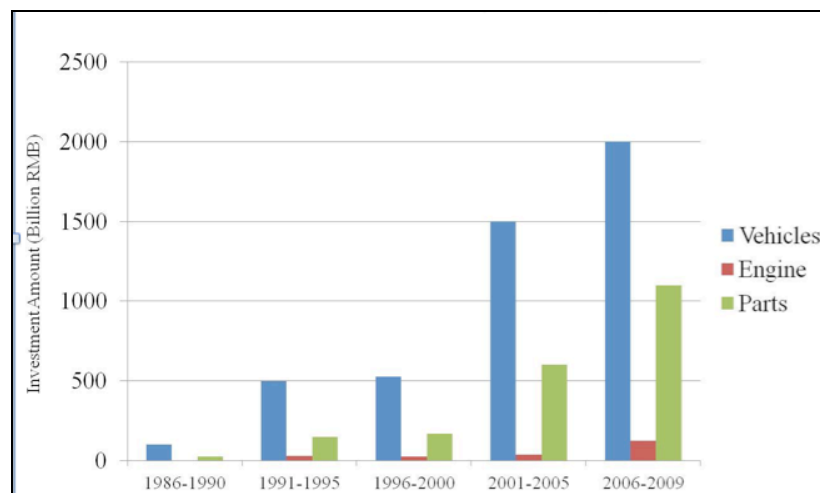
Out of its ambition to produce competitive models, the Chinese Central government strongly encouraged inflow of FDI on parts making. As a representative example, in 1995, it identified 60 key parts considered vital for raising car-production quality, and recommended 170 local parts makers to MNCs as possible JV partners.⁵⁶ This measure caused a round of parts-making FDI inflow in 1994 to 1996 (Figure 2.4).

⁵⁵ The State Planning Committee of China (1994) 'National Automotive Industry Policy'.

⁵⁶ Victor F.S. Sit and Weidong Liu, "Restructuring and Spatial Change of China's Auto Industry under Institutional Reform and Globalization," *Annals of the Association of American Geographers* 90, no. 4 (2000): 653-673.

At present, more than 500 FDI involved auto firms and most of the world-leading parts-making MNCs have invested in China including 80 assembly JVs, 410 automotive parts JVs, and 10 wholly foreign-owned firms. In 1992, there were only 19 JVs, which accounted for 20 percent of the industrial output value, but in 1998, in the components sector alone, there were some 170 JVs, which accounted for 47 percent of the output value in that sector. In 1998 alone, Chinese firms signed 28 JV agreements with foreign firms, exceeding the entire number of JVs established between 1980 and 1992. Most importantly, the Chinese firms are able to significantly build their capacity within the form of JVs, rather than by themselves.

Figure 2.4: Investments in the Auto Sector (1986-2009)⁵⁷

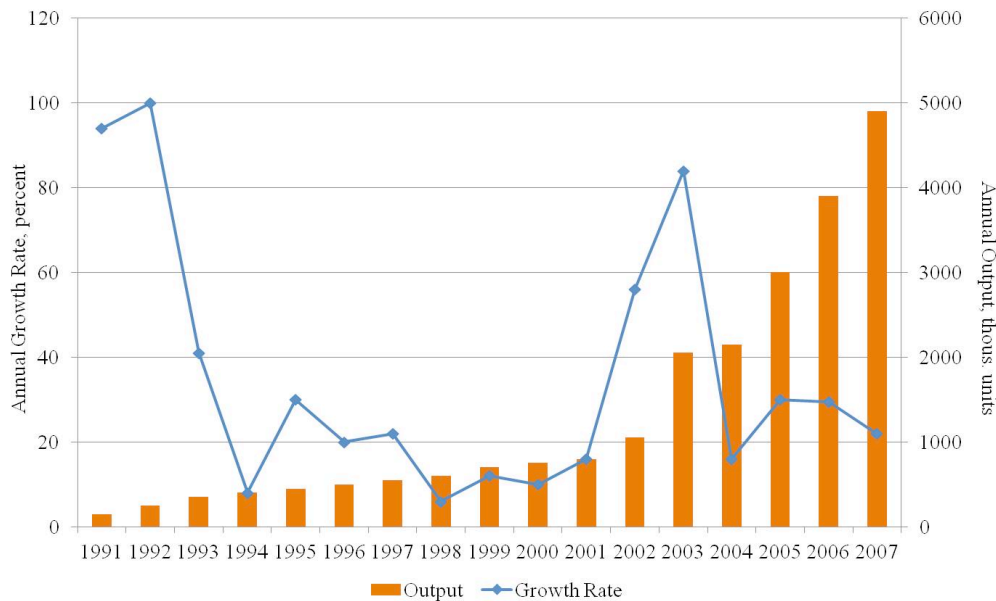


In addition, Chinese industrial policy places a strong emphasis on developing indigenous R&D capabilities in such pillar industries as the auto industry. Approval guidelines for foreign MNCs to establish JVs in the Chinese auto industry involve several provisions concerning technical development. The JV must have an internal technical center that is capable of developing future generations of products that must quickly reach a technological level on par with global standards. The industrial policy provides three strategic guidelines for developing indigenous R&D capabilities (The State Administration of Machinery Industry, 1995). First, vehicle assemblers (or original equipment manufacturers, OEMs in short) should include 5 to 10 percent of total reinvestment for developing or expanding their technological centers. Second, R&D spending should reach at least 2 to 3 percent of sales within five to ten years. Third, key component suppliers should apply 10 to 20 percent of their reinvestment to set up R&D facilities and technical centers. The government provides financial and taxation support for joint R&D projects. Under the policy goal of creating a national champion following

⁵⁷ Chinese Automotive Statistical Yearbook (2010).

the footsteps of Japan and Korea, the Central government attempted to maximize its leverage through various regulations.

Figure 2.5: Output and Growth Rate of Automotive Industry (1991-2007)⁵⁸



Another attractive aspect of studying the auto sector is that it serves as an interesting case study to examine the interplay of rules at the international, national, and sub-national levels. At the international level, China’s WTO entry in 2001 reformulated the context in which states interact by introducing new tariff regulations and liberalization measures. After a 15-year-long marathon negotiation, China finally joined the WTO in 2001 by agreeing to comply with anti-protection, pro-competition and non-discrimination principles with the objective of gaining global market access and attracting more FDI. China’s WTO entry was hailed as a significant step forward in opening China’s market and curbing government practices that put foreign firms at a competitive disadvantage. Upon entry, China was obliged to revise various regulations in compliance with the WTO standards. The Trade-Related Investment Measures (TRIMs), especially pressed China to eliminate performance requirements imposed on foreign investors. This prevented China from implementing non-tariffs barriers such as subsidizing export performance, putting local content requirements, and maintaining separate regulations for domestic and imported products (Table 2.5). As a result, the Chinese Central government had to adopt various policy measures to promote equal competition between the Chinese local companies and MNCs, as well as to remove various market barriers. China listed over 700 trade related barriers and achieved average of 15 percent tariffs for industrial goods as compared to 45 percent in 1994.

In order to comply with TRIMs, China promised to amend some FDI regulations. As such, the local content requirements, trade balance requirements and foreign currency restriction for import were abolished. The regulation on foreign investment was relaxed.

⁵⁸ Chinese Automotive Statistical Yearbook (2008).

Complying with TRIMs became an important turning point for China's auto industry's development. In June 2004, the National Development and Reform Commission promulgated the "Automobile Industry Development Policy" as one of the newly detailed liberalizing measures. One of the major concessions was abandonment of the local content requirement that had been employed for nearly two decades (Table 2.6). Foreign businesses in the auto sector could now source their inputs based on their profit calculation and market strategies rather than based on political consideration. As a measure to lower the market entry barrier and to expand operational scope for foreign companies, the tariff on imported vehicles was lowered to 25 percent and imported parts and components was reduced to 10 percent by July 2006. Such measures widen some room for MNCs to extract higher returns on their investment by importing necessary parts and components.

Table 2.5: International Context-Chinese Automotive Market Before and After WTO Entry⁵⁹

Policy	Pre-WTO entry	Post- WTO entry
Foreign ownership	Limited to 50%	No change
Number of JV for foreign manufacturer	Two per vehicle segment (Sedan, bus and truck)	No change
Import tariffs on vehicles	-1980s: 200% -1990s: 80-100% on passenger cars; as low as 9% on some other vehicles	25% by 2006
Import tariffs on vehicle components	15-50%	10% by 2006
Import quota	-Vary by year on number and value of imported vehicles -30,000 vehicles a year allowed from foreign car makers	-Raised limit to \$6 billion worth of imports on accession -20% annual increase until elimination in 2006
Import licensing	Foreign enterprise cannot directly import vehicles	Import rights granted within 3 years of accession
Local content requirement	-First year of production: 40% -Second year of production: 60% -Third year of production: 80%	Elimination on accession
Distribution, retail, after sales service of foreign makers	-Car manufacturers must use Chinese distributors to sell their vehicles, and domestic firms to service them -Limited to wholesale by JVs -No sales office for JVs	Distribution, sales and service rights for foreign firms phased in over 3 years
Automotive financing	Foreign non-bank financial institutions are prohibited from providing financing	Foreign non-bank financial institutions are permitted in selected cities prior to gradual national rollout

⁵⁹ Compiled by the author from Holweg, *The Past, Present and Future of China's Automotive Industry*. Noble ed., *Executioner or Disciplinarian*.

During the negotiations prior to the WTO membership, the Central government favorably kept control over key issues in managing FDI flows into the auto sector. First, the ownership requirements remained intact, which heavily restricted the operational strategies of foreign partners by precluding traditional market penetration tools such as export and equity investment. Second, JV operations and the key components projects (e.g. engine motor, anti-locking breaking system, safety airbags) required the approval of the two most influential divisions in China's cabinet—the State Economic and Trade Commission and the State Development Planning Commission.⁶⁰ In addition, import tariffs still averaged 10 percent for the vehicle components and 25 percent for the assembled vehicles even after six years. Assemblers and parts-makers were prohibited from marketing their products exclusively under their global brand names and were instead required to stamp the name of the local manufacturer or JV partner on all their products. In other words, the Chinese Central government reserved the right to assume an active role in shaping the developmental trajectory of the given sector, albeit restrained.

⁶⁰ The State Development Planning Commission was renamed as National Development and Reform Commission in 2003. For administrative and regulatory changes in the automotive industry, see Yukyung Yeo and Margaret Pearson, "Regulating Decentralized Industries: China's Auto Industry," *The China Review* 8, no. 2 (2008): 231-259.

Table 2.6: Summary of the Automotive Industry Policy 2004⁶¹

1. Policy Objectives	Insisting on the principle of combing market theory and government macro planning; Promotion of the harmonious development of the automotive and associated industries; Enhancing economy of scale and concentration of the industry; Encouragement of self-reliant product development and local brand development, aiming to build a few famous brands and world-level (top 500) automotive groups before 2010; To become one of the major global auto production countries and to export in big volume; Fostering the development of local suppliers, and encouraging the participation of global competition
2. Development Planning Management	The National Development and Reform Commission (NDRC) makes the mid/long term strategic plan for the industry in accordance with this policy; The big automotive enterprises (with >15% market share) should make the strategic plans of their own in according with the strategic plan of NDRC with the authorization of NDRC.
3. Technology Policy	Insisting on the principle of combing technology transfer and self-reliant product development; Encouragement of light duty and fuel-efficient cars; Promotion of the R&D and commercialization of battery-powered electrical vehicles, hybrids and fuel cell vehicles; Promotion of the use of alternative fuels including methanol, ethanol, natural gas and etc.
4. Industrial Structure Adjustment	Encouragement of formation of big automotive groups (with >15% market share) or alliance; Encouragement of global cooperation and operation of local automotive enterprise; Encouragement of international acquisition or merger; Separation of the part division from assemblers; Setting up regulations for withdrawing
5. Entry Management	To continue 'Bylaw of Motor Vehicle Management'; To constitute compelling automotive product standard criteria for safety, emission, fuel efficiency and etc.; To uniform the management systems for the entries of automotive enterprises and products.
6. Brand Strategy	To encourage self-property products, emphasize intellectual property protection, and improve local brand reputation; Encouragement of strategic planning on local brand development and protection; All the automotive parts and assemblies produced in China should be labeled with brands and production locations.
7. Product Development	Encouragement and support of establishments of R&D centers in automotive enterprises for improving independent product innovation capabilities; Encourage the involvement of assemblers and suppliers in national R&D projects.
8. Part Industry	Encouraging suppliers into the product development activities within assemblers; To form advanced R&D and manufacturing capability and enter the international market; To encourage various sources of funds entering the part industry;
9. Distribution/sales network	Encouragement of learning the mature international auto sales modes; Encouragement of the establishment of local brand product sales and service systems; Passenger car sales and service should be licensed from manufactures and distributed

⁶¹ China National Development and Reform Commission (2004) 'National Automotive Industrial Policy.

	by brands from 2005, all autos from 2006.
10 Investment	Chinese share holding in whole car assembly enterprises must be no less than 50%, but not applying to exportation-targeted projects; Investment on establishing new auto assembly enterprise must be no less than 2 billion Yuan.
11 Import Management	Support on localization of foreign products; Restriction of imports; Entry points limited to four seaports and two land ports; Prohibition of bonded service for imported automobiles in bonded areas of the import ports from 2005; Prohibition of imports of used vehicles.

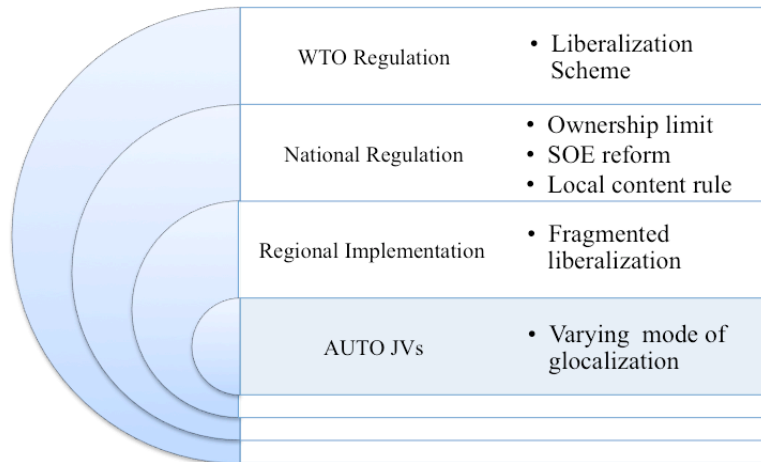
At the sub-national level, international and national rules are implemented and often reinterpreted (Figure 2.6). As *de facto* decentralization or local autonomy has been the focus of this reform process, the role of sub-national governments is particularly salient when dealing with “bottom-heavy” policies.⁶² Even if local input is low during the policy-making phase, the newly decentralized structure enables sub-national governments to have “adaptive efficiency,” allowing for “policy-remake” during the implementation phase.⁶³ As the old Chinese proverb illustrates, “at the center, there are official policies, and at the sub-national level, there are countermeasures (*shangyouzhengce xiayouduice*, 上有政策下有对策),” sub-national governments sometimes find ways to deviate from central policy to maximize their benefits.⁶⁴ Such characteristics are more salient in the auto sectors, because regional governments own local auto companies and compete fiercely to create their own regional champions by providing regional protection and promotion schemes for JVs, or by attempting to develop their own self-proprietary models. Therefore, examining the auto sector allows us to look at the three main characteristics of Chinese economic developmental path: 1) management of FDI, 2) promotion of industrial upgrading, 3) and interaction of rules at the international, national and regional levels in the context of global economy.

⁶² Jean C Oi, “The Role of the Local State in China’s Transitional Economy,” *The China Quarterly* 144 (1995): 1132-1149. Chung, *Preferential Policies*. Chung, *Central Control*.

⁶³ For adaptive efficiency, see Douglas C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990), 80. For ‘policy-remake’ during the implementation phase, see Steven Maynard Moody, “Beyond Implementation: Developing an Institutional Theory of Administrative Policy-Making,” *Public Administration Review* 49, no. 2 (1989):137-143.

⁶⁴ Peter Ho, “Who Owns China’s Land? Policies, Property Rights and Deliberate Institutional Ambiguity,” *The China Quarterly* 166, (2001): 394-421. Jianmin Zhao and Bruce Dickson, *Remaking the Chinese State: Strategies, Society, and Security* (London: Routledge, 2001). Sung-Cheol Lee and Kark-Bum Lee, “Inward Investment and the Transformation of Regional Economies in China: From regional Convergence to Fragmentation between 1953 and 1996,” *DISP*, no. 30 (2002).

Figure 2.6: Interplay of Rules at the International, National, and Sub-national Levels



SITUATING THE EMPIRICAL PUZZLE

The success of certain industries largely depends on a broad network of firms and suppliers, the so-called supplier network. Especially in the auto industry, the developing supplier network is vital as it requires extensive production linkages among upstream inputs—steel, petroleum, and machine tools—as well as among downstream affiliates, such as dealerships, repair shops, auto financing, and insurance companies. The ways that companies develop supplier network in the automotive industry have been under keen academic subjugation in the field of international political economy, comparative economy and management literature. For national economic growth, auto supplier development is one of the ultimate goals and requirements to develop a successful auto sector. Also, developing local suppliers is closely linked to boosting industrial growth, employment creation, and other related manufacturing sector modernization. In inviting global companies, developing countries tend to use local content requirement as non-tariff barriers and import substitution strategies by requiring purchasing or using inputs of domestic origin. This has been extensively discussed in the context of trade, foreign investment, and industrial development. International organizations, in particular the WTO, have strongly attacked these policies, but policy makers in developing countries continue to be firm believers in their potential benefits. Recognizing the importance of developing indigenous parts suppliers, the Chinese Central government imposed strict local content requirements as early as the 1980s, adhering to a schedule. According to the State Planning Commission, the local content rate (%) is calculated as below:

$$100 \times \frac{(\text{Manufacturer's price} - [\text{Complete knockdown price} + \text{tariffs}])}{\text{Manufacturer's Price}}$$

The price in 1985 is used as the basis price. Each automaker calculated its own

local content rate using the above formula. The China Research Center for Automobile Technology in Tianjin, an affiliate research institute of the Ministry of Machinery Industry, assembled a group of technicians to examine the self-reported result. The government's technological department, thus, determines the local content rate. Under such a regulatory framework, JVs struggled to meet the local content requirements either by nurturing Chinese local suppliers or persuading their foreign suppliers to come to Chinese market. However, not many foreign suppliers were willing to enter the Chinese market with major assemblers due to unclear market conditions and sporadic regulatory changes. This makes the follow-the-flag strategy the common practice of auto supplier network movement across the national borders, where the assemblers lead the way to enter the foreign market and the suppliers follow afterwards. However, in China, meeting the local content requirements was not just an operational but a political condition to have an operation in China. Hastened and forced local content requirement enforcement often hampered the cooperation within JVs and damaged the overall health of the JVs.

In the early 1990s the Chinese government recognized the low standard of the local parts-making industry, and its potentially fatal impact on the localization of production. As illustrated in the previous section, the Chinese Central government strongly encouraged inflow of FDI on parts making especially from 1994 to 1996. With China's entry into the WTO in 2001, the local content requirements were abolished according to the WTO TRIMs. Nevertheless, most automotive JVs have achieved more than 90 percent of localization as of 2008 in order for excelling price competition and evading trade barriers. Yet, the increasing numbers of Chinese local suppliers do not necessarily mean that they are from the same location or the JV partner of Chinese side. It used to be the case where most of the new JVs source their parts from the Shanghai region where the localization base was the strongest.

This makes it important to examine the actual composition of suppliers. The fact that a JV operation uses Chinese local suppliers means that the local suppliers have significant industrial upgrading and meet the quality standards of global models. Industrial upgrading in the auto supplier sector is not easy. According to the Organization of Economic Cooperation and Development classification, the automotive industry belongs to a medium to high-technology sector. Unlike the electronics industries that are periodically reshaped by radical innovations, innovation in the auto industry is generally incremental and cumulative, based as much on tacit skills as formal R&D.⁶⁵ Parts companies have steeper entry barriers as components must meet rigorous performance requirements because complex vehicles face high demands for reliability, safety, energy efficiency, clean operation, and after-sales service. Interestingly, within the composition of suppliers, the degrees to which Chinese suppliers are included differ dramatically. Some JVs like Shanghai GM include up to 40 percent Chinese local suppliers, while some JVs like Beijing Hyundai have less than 16 percent. This is puzzling given that both SOEs and foreign automakers are in need of developing local suppliers. For SOEs, developing local supplier is not just an economic but also a political matter due to the potential for generating jobs, foreign exchange, skills and backward linkages. As a big

⁶⁵ David Haugh, Annabelle Mourougane and Olivier Chatal, "The Automobile Industry in and Beyond the Crisis," *OECD Economics Department Working Papers*, no. 745, 2010.

enterprise group, each SOE has approximately 30 to 50 in-group companies with 10,000 to 100,000 employees.⁶⁶ For foreign partners, improving the quality of local suppliers greatly contributes to the cost reduction since 75 percent of the auto value lies in auto parts, as opposed to 10-15 percent in assembling. Given such a landscape, why do some JVs “thrust” local suppliers up the production ladder and create clear global-local linkage, while others largely remain “stalled” at the low value added segment of production? Under the similar market conditions and transaction types in the automotive industry, why does their supply network development differ? What factors explain such variations and why do such variations matter?

Such variations have theoretical and empirical significance. First, the developing Chinese indigenous suppliers and models (*zizhupinpai*, 自主品牌) has been the main focus from the beginning of China’s industrial policy. The development of local suppliers serves as a proxy indicator of gauging incremental capacity building and industrial upgrading within JVs. The fact that a JV operation uses Chinese local suppliers means that the local suppliers have significant industrial upgrading and meet the quality standards of global models. Thus, examining variation of supplier network development will illuminate the Chinese way of industrial upgrading at the sub-national level and the impact of different national origin of FDI for local economic development. Second, the capability of developing local suppliers also demonstrates how the sub-national governments navigate the international and national regulatory environments to develop its own local economy in competition or cooperation with MNCs.

Existing Literature on the Chinese Automotive Industry

The automotive industry in China has been the subject of extensive research. Scholars in the Chinese studies have attempted to grasp how the fragmented regulatory and institutional structures in automotive industry shape the sectoral development. There exist three different groups. The first group of scholars discusses the characteristics of Chinese auto industry in comparison to other countries and serve as key works for latter research to build upon.⁶⁷ Eric Harwit⁶⁸ and James Mann⁶⁹ are one of the earliest to provide great details on how early developers fared in a very unknown environment of China and how the Chinese Central and regional governments wielded their power to ensure the benefits of MNCs presence. Gregory Noble and John Ravenhill and Harwit further elucidate the impact of the WTO on the Chinese automotive industry, and how WTO entry would possibly bring changes to the JV operation. However, this overlooks the resilience of the decentralization in one of the most strategic industries in China and

⁶⁶ As of 2002 data, both centrally-owned SOEs of the First Auto Works and Dongfeng each have 100,000 employees. Regionally owned Shanghai Automotive Industry Company has 59,000, Beijing Automotive Industry Company has 35,000, and Guangzhou has 14,000.

⁶⁷ Eric Harwit, “The Impact of WTO Membership on the Automobile Industry in China,” *The China Quarterly* 167 (2001): 655-670. Noble, *Executioner or Disciplinarian*.

⁶⁸ Eric Harwit, *China’s Automobile Industry: Policies, Problems, and Prospects* (Armonk, New York: M.E. Sharpe, 1995).

⁶⁹ James Mann, *Beijing JEEP: A Case Study of Western Business in China* (Boulder, CO: Westview Press, 1989).

provides fewer details on the varying implementation of WTO regulations. Despite the fresh insights conveyed by this body of research into the WTO-central government bargaining process, the resilience of the decentralizing force at the sub-national levels has lacked emphasis.

A second group of scholars focuses on the power struggle between the Chinese Central government and the regions from the viewpoints of regulatory and industrial structures. Yasheng Huang details how the Chinese Central government introduced the foreign investors to fix the extensive local autonomy and to regain power over the regions.⁷⁰ He points out how the fragmented auto industry structure and extensive local autonomy created efficiency and coordination problem among government agencies, in contrast to South Korea. Yukyung Yeo and Margaret Pierson highlight the Central government's effort to keep a firm grip on the centralized regulatory structure in such fragmented structures.⁷¹ However, these approaches are relatively silent on how the external factor of the WTO affects the balance between national centralization and sub-national autonomy within China.

A third group examines how China's regulations on ownership limit compel foreign automakers to embed themselves into the given geography with specific industrial structures and local institutions.⁷² Liu and Dicken have studied how foreign partners fulfilled "obligated embeddedness" by adapting themselves into the existing industrial structure of a given Chinese partner's territories. However, these approaches place heavy emphasis on the domestic conditions and miss the possibility that MNCs could shape the existing industrial structure they have to be embedded. Specifically, their study falls short in accounting for: 1) why some foreign partners have better embedded themselves into the existing industrial structure of a given region and 2) how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness (i.e., licensing cooperation and supplier's prior entry to assemblers). Instead of reactively responding to the regulation, some of the foreign automakers proactively devise alternatives and help suppliers pre-cluster near their "virtual assembly plant".⁷³ Other automakers create licensing agreements with existing local auto manufactures as a litmus test for more extensive future investment. In the process, the JV operation incorporates local parts makers in various ways.

In his book *Changing Lanes in China: Foreign Direct Investment, Local Governments, and Auto Sector Development*, Eric Thun examines how different local institutions (bureaucratic and corporate structures of SOEs) affect the performance of JVs and credits the Shanghai Automotive Industry Corporation (SAIC)'s success in developing a local supplier network to its unified bureaucratic structure and tightly controlled corporate governance.⁷⁴ However, Thun's approach on focusing institutional

⁷⁰ Huang, *Between Two Coordination Failures*.

⁷¹ Yukyung Yeo and Margaret Pearson, "Regulating Decentralized State Industries: China's Auto Industry," *The China Review* 8, no. 2 (2008): 231-259.

⁷² Liu and Dicken, *Transnational Corporations and 'Obligated Embeddedness'*.

⁷³ Faith Hatani, "Pre-clusterization in Emerging Markets: the Toyota Group's Entry Process in China," *Asia Pacific Business Review* 15, no. 3 (2009): 369-387.

⁷⁴ Eric Thun, *Changing Lanes in China: Foreign Direct Investment, Local Government, and Auto Sector Development* (New York, NY: Cambridge University Press, 2006).

structure of the Chinese government and SOEs falls short in explaining the rapidly developing auto production network of other “unsuccessful” cases such as Beijing and Tianjin since 2002—the pivotal year when China entered the WTO. Curiously, Thun does not explain why other SOEs such as Beijing auto companies elected not to follow or imitate the practice of the SAIC, particularly since he hails it as the successful prototype. Do other automotive companies have fewer incentives or capacities for consolidating their corporate structure and centralizing its bureaucratic structure? Or, alternatively, is SAIC’s model just not suitable for the second stage of competition in the automotive industry?

By building on the above-mentioned existing literature, my work brings two new insights in the following two ways. First, I examine the interplay of rules at the international, national and sub-national levels, and second, I focus on the automotive industry from the perspective of industrial upgrading. Specifically, I argue that local governments now have increased authority and incentives to undermine domestic competition by cultivating preferential relationships with foreign JV partners. Local governments frequently manipulate public policy to favor their JV partners over those of neighboring regions. Therefore, China’s entry into the WTO has only resulted in what I call *fragmented liberalization* that will be further introduced in the theory chapter.

Industrial Upgrading in Emerging Economies

My second contribution to the literature is focused on the automotive industry from the perspective of industrial upgrading. Industrial upgrading is defined as “the process by which economic actors—nations, firms, and workers—move from low-value to relatively high-value activities in global production networks,” or “continuing modernization and upgrading of technology, equipment and organization.”⁷⁵ What exactly is “value” in this context? Value has two different concepts. First, at the national level of analysis, value refers to the economic rent that is realized through international trade and import-export data that has served as a proxy in much of the Global Commodity Chain work. But, the data constrains to the national scale of analysis, and regional breakdown proves more difficult. Second, the concept of value was developed by Ralph Kaplinsky and is used at the firm or industry level of analysis. It is applied to distinguish different forms of rent, i.e. technological, organizational, relations, trade-policy and brand-name rents.⁷⁶ From this perspective, it can be misleading to simply refer to certain industries as high-value added or low-value added. In China, for example, more than 70 percent of Chinese export in high tech industry is from the IT sector. A huge portion may have been classified as “high-tech” but even these ostensibly high-end exports were dominated by lower-end parts for IT products, or at best, matured products such as DVDs and laser printers. To this end, Steinfeld validly argues that Chinese firms are integrating extensively with the global economy, yet shallowly.⁷⁷

⁷⁵ Gary Gereffi, *The Global Economy*, 171.

⁷⁶ Raphael Kaplinsky, “Globalisation, Industrialisation and Sustainable Growth: The pursuit of the Nth Rent,” *Institute for Development Studies Discussion Paper 365* (1998).

⁷⁷ Steinfeld, *China’s Shallow Integration*.

As it is tricky to call one whole sector as high or low-value added, I would like to understand regional development and industrial upgrading from three dimensions (Table 2.7). First is value creation—the capacity of regional institutions to attract the location of value-added activities. The Chinese regional governments strive to attract competitive global automakers and parts makers to their own localities by providing an one-stop administrative offices, establishing a task force team to facilitate the JV formation, as well as to ensure various preferential treatment. Second is value enhancement—the capacity of regional institutions to enhance the value of production or services through technology transfer and industrial upgrading. Regional institutions might promote either the specific regional assets (cooperative industrial relations) that are conducive to high value-added production activities or to the value enhancement activities of focal firms by developing infrastructure and human resources (highly stable power supply and skilled engineers, or developing sophisticated local suppliers). We can hypothetically assume that more coordinated and hierarchically organized regional institutions would manage the development process of certain industries better than those who are less organized and coordinated with fragmented structure. Third is value capture—the capacity of regional institutions to retain the value created in particular localities. The fact that a region is plugged into the GPN does not guarantee its positive developmental outcome because actors in this region may fail to capture much of the value created in the region. Regional assets have to develop the right fit with the strategic needs of the GPN, and the process requires the presence of appropriate institutional structures that simultaneously promote regional advantages and enhance the region’s articulation into the GPN. Therefore, the capacity is linked to development policies and various regulations over ownership patterns and corporate governance.

Table 2.7: Conceptualizing the Mechanisms of Value Creation

Category	Definition	Indicators
Value creation	Capacity of regional institutions to attract the location of value-added activities	-preferential policy package -industrial assets
Value enhancement	Capacity of regional institutions to enhance the value of production or services through tech-transfer and industrial upgrading	-increasing number of local Chinese suppliers -upgrading the segment of production
Value capture	Capacity of regional institutions to retain the value created in particular localities	-in-group supplier development -putting local suppliers into JV operation

There exist two different strands of an approach to bridge the divide between globalization dynamics and the notions of regional development. The first approach is an *outside-in perspective*. Academic works on inter-firm networks such as the Global Commodity Chain (GCC) have been preoccupied with the organizational structures of global firms’ production systems and how particular regions “slot into” these networks

with varying degrees of impact on industrial upgrading.⁷⁸ Some literature pays significant attention to MNCs' global management experience and operating strategies from their previous ventures in emerging countries and examines China's strategies in the context of global strategies. However, the GCC approach considerably neglects regional institutions as influential factors in the process of industrial upgrading.

The second approach is an *inside-out perspective*. The institutionalists have placed significant emphasis on indigenous institutional structures and their capacity to "hold down" global networks.⁷⁹ Particularly in the Chinese case, much of Chinese political economy literature renewed interest in the study of "region" and the role of the local state and institutions in holding down global networks. Scholarship in economic geography also pays special attention to sketch the array of global-local economic links that tie the cities as local nodes of any regionalized or regionalizing production chains and include a special focus on region-wide division of labor, hierarchical positions and functional influences among cities. With respect to the Chinese auto sector, Sit and Liu argue that the establishment of local supply linkages of automobile TNCs in China is mainly the outcome of "obligated embeddedness" whereby MNCs have to insert themselves into existing industrial structure and political system of a given region.⁸⁰ However, these lines of analytical streams tend to less focus on the ability that MNCs and outside economic factors bring change to the existing industrial structure and operation context. This dissertation attempts to strike a balance between these two approaches by emphasizing the interaction between the insiders and outsiders in producing different production network configuration and varying degrees of industrial upgrading capability.

⁷⁸ Gary Gereffi, "Global Commodity Chains: New Forms of Coordination and Control Among Nations and Firms in International Industries," *Competition & Change* 1, no. 4 (1996): 427-439. Gary Gereffi and Raphael Kaplinsky, "The Value of Value Chains: Spreading the Gains from Globalisation," Special issue of the *IDS Bulletin*, edited by Gary Gereffi and Raphael Kaplinsky 32, no. 3 (2001).

⁷⁹ Allen J. Scott, *Regions and the World Economy* (New York: Oxford University Press, 1998). Michael Storper, *The Regional World: Territorial Development in a Global Economy* (New York: Guilford Press, 1997).

⁸⁰ Victor F.S. Sit and Weidong Liu, "Restructuring and Spatial Change of China's Auto Industry under Institutional Reform and Globalization," *Annals of the Association of American Geographers* 90, no. 4 (2000): 653-673.

CHAPTER THREE

VARIETIES OF GLOCALIZATION IN SUPPLIER NETWORK FORMATION

INTRODUCTION

In inviting global economic forces in the form of FDI, many countries endeavor to create a policy environment to ensure the positive impact of foreign factors on local economic development. China has followed a gradual approach of transforming from a socialist to a capitalist economy by encouraging FDI from the onset of economic development in 1978. This created continuing tension between the state's need to protect infant industries through protectionist measures and the need to integrate into the global economy through pro-competition and pro-liberalization measures. Since then, Chinese governments at various levels have strived to create a policy framework and regulatory environment that best promote learning from external economic factors without creating severe dependency. This dissertation pays special attention to the supplier network development in different automotive JVs. The development of the auto industry not only has a huge impact in other upstream and down-stream industries, but also required massive support from the governments from various levels. From a policy standpoint, one of the core issues regarding the development of supplier network is to increase the local content—percentage of parts and inputs of domestic origin.

To ensure the benefits of MNCs' presence, developing countries tend to enforce local content requirement to MNCs as non-tariff barriers and import substitution strategy by requiring purchasing or using inputs of domestic origin. This has been extensively discussed in the context of trade, foreign investment, and industrial development. International organizations, in particular the WTO, have strongly attacked these policies as these create market barriers for the foreign companies, but policy makers in developing countries continue to be firm believers in their potential benefits. Especially in the automotive industry, the success largely depends on a broad network of firms and suppliers from upstream to downstream. Recognizing the importance of developing indigenous parts suppliers, the Chinese Central government has implemented strict local content requirements as early as the 1980s in order to promote local supplier development. Local suppliers refer to indigenous Chinese auto parts makers to supply for the final assembly. They are usually the firms established and programmed by regional governments or the centrally programmed assemblers that were established and managed by the Central government (i.e., various ministries of the State Council). The motivation behind the local content rate is to encourage foreign companies to develop local suppliers instead of importing parts and inputs, so that the economy can benefit from spillover effects from MNCs to Chinese local companies. With the membership to the WTO, the local content requirements were abolished. Still, most automotive JVs have achieved more than 90 percent localization as of 2008 to secure lower prices and evade trade barriers.

This chapter gives an overview of my theoretical framework as well as research design. First, I will introduce my dependent variable of varying supplier network configuration within automotive JVs, and why examining this variation matters. The

following section will examine responsible actors of parts localization—local governments, SOE’s head offices, and foreign JV partners. It is noteworthy that these three actors develop varying interests with respect to local supplier development and parts localization. Then, I will introduce my three independent variables in examining the capacity and willingness of involved parties in local supplier development. First is the macro-level governance, referring to government policy and governing institutions over auto sector in a given region—both of which serve as ways to test the government’s ability to control and manage the development process. Examining the government’s industrial policy goals and incentive structure for the government leaders will also reveal the leadership’s willingness to develop the local supplier network. Second, at the firm level, I explore the micro-level institutional factors of intra-firm structures and inter-firm relations within the auto group. The auto SOEs (*qichejituan*, 企业集团) are large business groups consisting of auto assembly plants and supply firms through the consolidation process. The auto group structures and coordinates the relationship among firms (between the assembly plant and supplier) in its jurisdictions. The powers of automotive industrial groups vary in each city, and the micro-level institutional factors define their control over firms within the group and willingness of developing local suppliers under its own roof. The third factor is the way a foreign partner embeds itself into the regional institutional and industrial structures. Because all the passenger car development is in the form of a JV, the foreign partner serves as the third important independent variable. The final part of the chapter provides an explanation on four different models of creating local-global linkage in developing supplier network.

DEPENDENT VARIABLE: VARYING MODE OF DEVELOPING SUPPLIER NETWORK WITHIN AUTOMOTIVE JVS

From an industrial upgrading perspective, the spatial configuration of supply networks and industrial clusters in a given region significantly impacts the mode of JVs’ integration into the GPN⁸¹ and the economic competitiveness of SOEs. As such, this dissertation takes the composition of the supply network as a dependent variable to demonstrate how different regional clusters and industrial districts incorporated into GPN and what roles each actor of governments, SOEs and MNCs play.

One of the key elements of localizing business operation is to develop local content, which is to use the parts and inputs of domestic origin. The local content itself indicates the origin of inputs regardless of ownership; thus, supplier network development is crucial whether sourcing from foreign companies based in China or developing Chinese local companies. For examples, auto parts made by both the Chinese indigenous firms and by MNCs, such as Bosch and Delphi, are viewed as local content as long as the parts are produced in China. The local content itself indicates the origin of inputs regardless of ownership.

⁸¹ Michael E. Porter, “Locations, Clusters, and Company Strategy,” edited by G. Clark, M. Feldman and M. Gertler in *The Oxford Handbook of Economic Geography* (Oxford: Oxford University Press, 2000), 253-274.

In China, local content has been used as import substitution and industrial policy tools. For MNCs, it is critical to develop indigenous Chinese partners for market information, cost reduction and cooperative relationships with Chinese governments. The local content rate is based on the unit instead of value, because evaluating local content rate by value is extremely difficult. Most JVs operating in the Chinese market achieved over 90 percent local content rate. However, high localization rate does not necessarily equal the high percentage of inclusion of indigenous Chinese suppliers, and thus examining configuration of supplier network is as significant to understand JV's capacity to develop local suppliers within the overall supplier network.

In the automotive industry, the supplier network consists of various tiers of manufacturers and suppliers. The term "tier" indicates the commercial distance in the relationship between the manufacturer and supplier. At the very top of the supply chain is an original equipment manufacturer, or OEM—a company that makes a final product for the consumer marketplace. Shanghai GM, Tianjin Toyota and Beijing Hyundai are OEM companies that manufacture cars in China. Among supplier firms, tier-one companies are direct suppliers to OEMs and they produce major parts for OEMs including engine, anti-lock brake system, and so on. For example, Hyundai Mobis is a tier-one supplier of AC, seat and car body to automotive OEMs. Delphi, Johnson Controls and Bosch are also global tier-one companies directly supplying to OEMs. Tier-two companies are the key suppliers to tier-one suppliers, without supplying a product directly to OEM companies. However, a single company may be a tier-one supplier to one company and a tier-two supplier to another company, or may be a tier-one supplier for one product and a tier-two supplier for a different product line. Lastly, tier-three companies are supplier of tier-two firms, and tier-four companies are the providers of basic raw materials, such as steel and glass, to higher-tier suppliers.

In evaluating the industrial upgrading capacity of the Chinese suppliers, I use the percentage of inclusion of indigenous Chinese suppliers at the tier-one level as a proxy indicator of industrial capacity building. The fact that JV operations use the Chinese local suppliers means that the local suppliers have significant industrial upgrading and met the quality standards of global models. Because the distinction between tier-one and tier-two can be arbitrary, in my work, I look at the direct supplier to OEMs.

Among the direct suppliers to JVs, I look at indigenous Chinese suppliers in the form of wholly Chinese owned as well as 50 percent JVs with the foreign suppliers. In the early 1990s, the Chinese government recognized the low standard of the local parts-making industry and its potentially fatal impact on the localization of production. Given its ambition to produce competitive models, the Central government strongly directly encouraged inflow of FDI on parts making. As a representative example, in 1995, it identified sixty key parts considered vital for raising car-production quality, and recommended 170 local parts makers to MNCs as possible JV partners.⁸² This measure caused a round of parts-making FDI inflow in 1994 to 1996. At present, more than 500 FDI involved auto firms and most of the world-leading parts-making MNCs have

⁸² Victor F.S. Sit and Weidong Liu, "Restructuring and Spatial Change of China's Auto Industry under Institutional Reform and Globalization," *Annals of the Association of American Geographers* 90, no. 4 (2000): 653-673.

invested in China including 80 assembly JVs, 410 auto parts JVs, and ten wholly foreign-owned firms. As such, the Chinese firms are having a difficult time building their own capacity, and the form of JV has been used strategically.

Then what are the variations that must be explained? As can be seen from Table 3.1, I chose three JVs that show clear variations in terms of bringing in Chinese indigenous suppliers in the form of wholly-owned enterprises and JVs in tier-one and the direct suppliers to the assemblers. As a JV established in 1997 between Shanghai government-owned SOE and GM, Shanghai GM developed a total of 200 direct suppliers over the course of 15 years, 40 percent of which are Chinese local suppliers. This JV has the highest record of nurturing and discovering qualified Chinese suppliers in China, and since early 2000, Shanghai GM has competed for the top automaker status in the Chinese market with Shanghai Volkswagen. On the other hand, Tianjin Toyota has about 23 percent Chinese local suppliers among 108 tier-one suppliers. Given the fame of Toyota being closed to its in-group subsidiaries and suppliers, 23 percent is a significant ratio. At the other spectrum, we have Beijing Hyundai who has the least percentage of Chinese suppliers in the supplier network. Comparing diverging practices among global automakers leads one to the question of whether the variation is due to company adaptation to the Chinese market or has been driven by the formation of JVs or the sub-national government pressure to use Chinese suppliers. Such variations in terms of supplier network composition among these three JVs are more puzzling given that both SOEs and foreign automakers must develop local suppliers. For SOEs, developing a local supplier is not just an economic matter but also a political one because of the potential for generating jobs, foreign exchange, skills and backward linkages. As a big enterprise group, each SOE has approximately 30 to 50 in-group companies with 10,000 to 100,000 employees. For foreign partners, improving the quality of local suppliers greatly contributes to the cost reduction as 70 percent of auto value comes from auto parts. Therefore I examine the factors that explain such variations given similar market conditions and similar transaction types in the auto industry and why such variations matter.

Table 3.1: Variation of Supplier Network Composition within Automotive JVs

JV	Local Content (%)	# of Tier 1 suppliers	Chinese suppliers in Tier 1
Shanghai GM	90%	200	40%
Tianjin Toyota	92%	108	23%
Beijing Hyundai	96%	120	16%

EXPLANATORY VARIABLES

In explaining the variation, I focus on the main actors and their interests in developing the local supplier in the Chinese auto industry. Before China opened its auto market to foreign automakers in 1983, the responsibility of developing local suppliers lies with the government and its protégé SOE auto group. Their roles are particularly critical in channeling capital to the intended target as well as ensuring efficient utilization of the investment at both the macro (from the government to the auto group) and micro level (from auto group headquarter to the in-group suppliers). Starting 1983, China allowed the foreign participation in the form of JV, and the pressure of developing local supplier has been partly carried over to the foreign partner through the “mandatory local content regulation”. Under such regulatory framework, most JVs prior to 2002 were under the pressure of assisting the Chinese partner to develop the local supplier networks by developing or identifying possibly qualified indigenous suppliers or forming JVs with them.

Given such backdrop, three actors deserve our attention in evaluating the capacity of developing local supplier network in the passenger vehicle segments in China: 1) the sub-national governments, 2) the government-owned auto group, and 3) the foreign JV partners. All these three actors have different interests in developing indigenous Chinese suppliers, and more importantly SOEs and government do not necessarily have aligned interests (Table 3.2).

First, the Chinese regional governments are mostly concerned with the local economic development and economic benefits in the form of tax revenue, GDP growth and employment. The auto industry has its attractiveness as a source of GDP growth, local employment and fiscal revenues. For the longer term, cooperation with MNCs is expected to yield technology transfer and capacity building on the Chinese firms. Therefore, they want to promote both Chinese suppliers and regional JVs based in their localities by providing various policies and local protection measures. However, some governments are not necessarily supportive of the development of the auto industry if the auto industry fails to create a substantial amount of economic benefits for the region or the governments see other lucrative opportunities.

Second, SOEs share the similar interests of sourcing from local suppliers in their own localities because they are owned and funded by the local government. However, the introduction of a competitive market force pushes SOEs to be able to survive on their own by developing administrative distance from the government and interests as a business group. The government and SOEs can be in discord, when the government changes the policy priority or SOEs do not want direct administrative guidance.

The third important actor is the foreign JV partner. Because all passenger car development is in the form of JVs, the foreign partner serves as the third important actor in boosting the industrial capacity building of the Chinese local suppliers. The willingness of MNCs to undertake localization of their production depends on a number of factors. First is the availability of qualified local suppliers. If the qualities of local supply industries are up to the standards, it will be easier for MNCs to source from local suppliers and increase local content rate. Second is the trade barrier on imported parts and components. If the trade barriers are higher for imported parts and components, MNCs

would be under tremendous pressure to localize their production network either by identifying qualified local suppliers or persuading subsidiaries to enter the foreign market.

Lastly, the market orientation of the assembled vehicles matters. If the local supply industry is below international standards in terms of product quality, auto MNCs are unlikely to be willing to increase local content as this might damage the reputation of their final product. Yet, if the assembled vehicle is aimed at the highly protected local market, MNCs may not have the incentive to build a car to international quality standards.

In China, the Central government regulated the most important strategies of global firms' entry mode and entry timing to auto MNCs. This made the foreign side possess little control over selecting a partner and compel foreign automakers to embed themselves into the given geography with specific industrial structure and local institutions. In addition, JVs were required to achieve a high rate of localization rapidly as a prerequisite for further business development, even though the local supply industry lagged behind international standards and lacked the capability to respond to changes in customer demand. It is in MNC's best interest to pursue maximum supply chain optimization, and to purchase from suppliers with best offer or closely linked in-group suppliers rather than from Chinese local suppliers. In the short run, the foreign partners are more likely to cut affiliated parts firms than to help to improve them, since the immediate task is to increase the quality and assembly volume to meet rapidly increasing demand. The quickest solution is to import from abroad or from other parts of the country. Upgrading local supply firms to a certain level that would enable them to form linkages with the more advanced manufacturing processes is an expensive process. Technology has to be licensed from foreign companies, equipment needs to be imported, and workers had to be trained. They also tend to establish their China strategy as part of a global strategy. However, MNCs face intense pressure to source from Chinese local suppliers or to co-develop the local suppliers with the Chinese partners. Facing the dilemma of low-quality local parts together with strict local content requirements, the early MNC entrants in the Chinese market either invested further in the parts industry or introduced and encouraged their affiliated suppliers to invest in China to help upgrade the local parts-making industry, effectively fulfilling the obligations of localization. In selecting local suppliers, MNCs tend to give priority to parts making JVs in China, mainly because of the need for locally made parts to meet the quality control standards of the parent MNC.⁸³ JVs can generally offer international-quality parts as the Chinese partners normally receive technology transfers from their foreign partners.

⁸³ Interview with a manager at German supplier company in Shanghai (September 14, 2009); Interview with an executive at Toyota in Shanghai (December 3, 2010); Interview with a manager at Hyundai Mobis in Beijing (December 11; 2010).

Table 3.2: Three Actors Involved in Parts Localization

	Chinese Partner		Foreign Partner
	Local government	SOEs	
Perspective on supplier selection	Building successful automakers and in-group auto part makers		Maximum supply chain optimization
Decision making criteria	Local economic development <ul style="list-style-type: none"> • GDP growth • employment • fiscal revenues 	Interests as a business group <ul style="list-style-type: none"> • firm survival • profit • in-group supplier development 	Commercial interests as a business group <ul style="list-style-type: none"> • China strategy • global strategy • minimum cost and maximum profit
Selection policy	“Everything being equal, we will first select the group member, then the one located closer to assembly lines, and finally the others”.		Want to purchase from the supplier with the best offer
In practice	Despite marketization, still tendency for local or group protectionism, resulting in inferior suppliers with lower qualities/ higher prices being selected		MNCs receive pressure to use local suppliers or develop them

As a capital intensive and increasingly technology intensive sector, parts development requires well-managed capital investment, coordination among suppliers, and monitoring capacity over the development process. In explaining the variations, I focus on three explanatory variables: 1) the macro-level institutional factors of SOEs’ administrative ties with the government in terms of the government’s control over the finances and personnel of SOEs; 2) the micro-level institutional factors of the business group consolidation process (*Qiyejituanhua*, 企业集团化) and inter-firm relations; and 3) the way foreign partners embed themselves in the existing industrial and local structures of a given territory with the help of Chinese partners. Such selection of variables enables me to understand the interaction among the three main actors of industrial upgrading: the regional governments, their protégé of SOEs and JV partners.

1. Macro-level Governance: Sub-national Government and SOEs

Firm strategies and their effectiveness are strongly affected by public policies and the national comparative institutional advantages influence the formulation and implementation of firm strategies and their effectiveness.⁸⁴ Macro-level governance refers to the governing institutional configurations over the auto sector in the region. With the lack of private actors, the role of the regional government and structures of governing institutions in a given industrial sector decide their ability to control and manage the sectoral development process. The local government controls capital allocation, personnel assignment, and management of the auto business group. Foremost, as a capital-intensive industry, access to capital is significant in developing the auto

⁸⁴ Peter A. Hall and David Soskice, eds. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (Oxford: Oxford University Press, 2001).

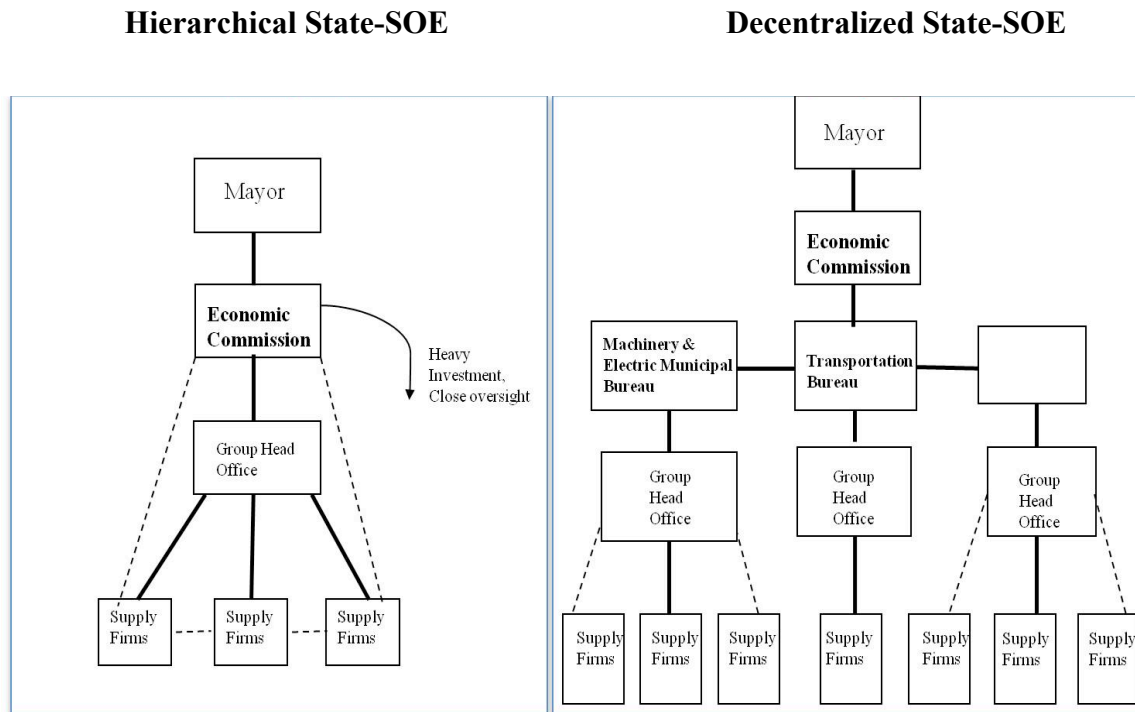
industry. The government and government-owned banks are the single important source of the capital, because bank lending was controlled by the state, equity markets were not yet existent, and informal lending sources were insufficient. In terms of personnel and management, the government appoints the leaders of SOEs who are basically the party members and who often return to the government positions. As such, the sector would develop much faster if the government develops mechanisms and institutions to better manage and channel its investment into the sectoral development.

In his research, Thun emphasizes the important of having unified and centralized macro-level institutions. He systematically juxtaposes the relative success of Shanghai with the relative failures of Guangzhou and Beijing in developing their respective auto sectors. In so doing, he focuses more on the role of the Chinese local state, the bureaucratic structures and inter-firm relations between the Chinese auto company and their Chinese suppliers. The more unified and coordinated the institutions governing auto industry, the more effective the industrial efforts outcome would be. As the “Varieties of Capitalism” approach suggests, many economies and different sectors develop varying bureaucratic and institutional structure that determines the pattern of resource allocation. In the auto sector as well, the bureaucratic and institutional structure of governing the auto sector determines not only the pattern of resource allocation but also the effectiveness. The ownership of firms also matters in the Chinese SOEs. When bureaucratic structures are fragmented, ownership of firms will be split between different parts of the bureaucracy, and when it is unified, firms will be within a single business group. The pattern of ownership in turn determines the inter-firm relationships: a hierarchical relationship is based on the common ownership where the local government controls the sector through one bureaucratic organization. A more market-based relationship is dominant if different bureaus are responsible for developing one sector. In this case, coordination among those government institutions is the key to the effective allocation and monitoring of resources. It is true that in most cases of SOEs, the structure of the bureaucracy and institutions is reflected in the inter-firm relationship at the SOE firm level. However, with the development of SOE reform it is not logical to assume that the structure of bureaucracy would dictate the form of inter-firm relations, so I take the macro-level and micro-level governments as analytically distinct variables. Examining the government’s industrial policy goals and incentive structure for the government leaders will also reveal the leadership’s willingness to develop the local supplier network.

Adopting Thun’s categorization, I operationalize institutions into two types, “hierarchical” and “decentralized” (Figure 3.1). Hierarchical institutional structure refers to a system where local government controls the auto sector through one unified and coherent bureaucratic organization. Hierarchical institutions have better capacity in channeling capital and monitoring the development process of sector. The Shanghai Municipal government is an example where the government has full control of the head office of Shanghai Automotive Industry Company. On the other hand, a decentralized institutional structure refers to a system where multiple bureaucratic organizations govern the auto sector. Without coordinating mechanisms or a clear power structure, the decentralized structure tend to suffer from bureaucratic tug-of-war or agency problems. Beijing is an example of decentralized structure where various bureaucratic organizations

at the municipal government level, including the machinery bureau and economic commission deal with the group head office of Beijing Automotive Industry Company. The macro-level governance indicates the administrative ties between the government and the SOEs, and different ways that government can wage influence on SOEs.

Figure 3.1: The Institutional Structures in the Auto Sector of Shanghai and Beijing
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2. Micro-level Governance: SOE's Corporate Structure

While macro-level governance refers to the set of processes, policies, and institutions affecting the way in which a firm is directed, administered or controlled, macro-level governance refers to the way the intra-firm and inter-firm relationships are structured and managed. In order to understand the Chinese style of corporate governance, I briefly discuss the historical background of SOEs in China. In the Chinese auto industry, extreme fragmentation and decentralization render the role of regional government and its protégé prominent in promoting the sectoral development and guiding SOEs. For SOEs, the ultimate ownership of these business groups lies in the people, while the government holds practical ownership. With China's drive to catch up with the developed countries, the Central government has shown its will to take the strategy of promoting SOEs as its main vehicle, instead of privatizing the large and medium SOEs.

⁸⁵ Inspired by Thun (2006) and reorganized from the Chinese automotive statistical yearbook (2002-2007).

Since the mid 1980s, the Central government planned to transform them into “modern enterprise corporations” in which the state retained at least majority shareholdings.⁸⁶ To that end, the central authority, adopted (*zhengqifenkai*, 政企分开) the separation of the state from enterprises by reducing its control over the auto industry and affiliate local firms with local business groups under the head office. In so doing, the government required large SOEs to merge or acquire smaller SOEs to form large groups. By 1997, 2302 *qiyejituan* had been established and they accounted for 51 percent of asset and 45 percent of revenue of all the industrial enterprises in China. The government had selected 120 of these business groups to be spread among pillar industries of China such as automobile, power, steel, transportation, electronics, coal, and chemicals.⁸⁷ There are twenty-one *qiyejituan* in the auto industry, representing over 90 percent of total Chinese automotive firms and revenues.⁸⁸

These big business groups are the main unit of business and production in the Chinese auto industry. They are coalitions of firms (auto assembly plants and supply firms), interwoven with complex legal, administrative, financial, and transactional ties under the control of a core firm. Through the consolidation process, these groups consist of auto assembly plants and supply firms. The core firms of these *qiyejituan* serve as intermediaries between the state and individual firms, and have extensive administrative influence over their member firms as the government has gradually reduced its control over the auto industry since the mid 1980s. However, in some cases the core firms have very little control over the in-group companies, because the consolidation process is sometimes undertaken for political reasons instead of economic reasons. In other words, instead of laying off workers from the SOEs, local governments require strong SOEs to merge with or acquire smaller and inefficient firms, thereby preventing political instability in the region as a result of huge unemployment.

This restructuring accomplishes multiple goals. Many small assemblers and component suppliers are highly inefficient. Individually, few of them are capable of surviving foreign competition. Joining a *qiyejituan* can increase the odds of survival by enhancing economies of scale. Second, a *qiyejituan* can provide an internal market for its members and thus help shield them from foreign competition. Third, when bargaining with foreign JVs, a large *qiyejituan* represents greater bargaining power than individual Chinese firms. Fourth, a *qiyejituan* can gather resources from its members and conduct larger R&D projects than an individual firm could alone. Fifth, a *qiyejituan* provide an open field in which technical and managerial knowledge can diffuse from initial learners to other members of the group. However, in many cases, political mergers not only hampered the overall health of the SOE but also weakened the controlling power of the

⁸⁶ Peter Nolan and Xiaoqiang Wang, “Beyond Privatization: Institutional Innovation and Growth in China’s large State-Owned Enterprises,” *World Development* 27, no. 1(1999): 169–200. Peter Nolan, “Large Firms and Industrial Reform in Former Planned Economies: the Case of China,” *Cambridge Working Papers in Economics*, 1995. 韩朝华, “战略与制度: 中国企业集团的成长分析 (北京:经济科学出版社 2000) :14.

⁸⁷ Wotao Yin and Yin Zhang, *The Organizational Framework of China Enterprise Groups* (Beijing: China Planning Press, 1999).

⁸⁸ China Automotive Industry Yearbook, 2003.

core firm over group firms because mergers are done to maintain political stability rather than considering economic efficiency.

Applying industrial upgrading to JV context, the role of auto SOEs is critical in creating an institutional fit between the global and local institutions. SOEs as a protégé of regional governments and partner of global automakers are relying on these two sides for different types of resources, which I argue, creates “dual dependencies.” In understanding the role of SOEs in bringing industrial upgrading, two different perspectives exist. The first body of literature answers to the question of SOE’s *lack of ability* because of their heavy dependence on government support and inherent problem of lack of agency.⁸⁹ The principal–agent relationship is defined as a contract under which principals employ the agent to perform on their behalf, which involves delegating some decision-making authority to the agent. Due to information asymmetry, opportunism and bounded rationality, the agent will not always act in the best interest of the principal.⁹⁰ In China, the traditional principal–agent issues are particularly profound in SOEs, because several administrative agencies situated at different levels of the government hierarchy exercise control over a single state enterprise. Up until the late 1990s, Chinese SOEs were administered by 1) supervising bureaus on the central or provincial level in charge of specific sectors as well as by 2) functionally specialized government agencies in charge of labor, housing, real estate, finance, taxation, and management personnel. SOEs had many “mothers-in-law” supervising them. Bureaucrats supervising SOEs held no direct financial stake in these enterprises, and the exercise of ownership rights over SOEs was fragmented among several government agencies acting both as shareholder and administrator.⁹¹

The fundamental problem is the so-called agency problem where ultimate ownership (by the people), practical ownership (by the Central government), and control over SOEs are separated. This separation of ownership and control manifests themselves in two layers.⁹² The first issue is agents being accountable to agents. By definition the ownership and residual claim rights of SOEs belong to all—hence in essence, to no one. From the macro-level governance point of view, government officials are in charge of the firm and firm managers answer to them. However, these officials too perceive themselves not as principals but as agents of the senior officials who appointed them instead of

⁸⁹ Chunli Lee, Jin Chen, and Takahiro Fujimoto, “Different Strategies of Localization in the Chinese Auto Industry: The Cases of Shanghai Volkswagen and Tianjin Daihatsu,” *Working Paper for the MIT IMVP Sponsors Meeting*, 1996. Eric Harwit, “The Impact of WTO Membership on the Automobile Industry in China,” *The China Quarterly*, 167 (2001): 655-670. Hua Wang, *Policy Reforms and Foreign Direct Investment: the Case of the Chinese Auto Industry*, paper presented at the 9th GERPISA Colloquium, Reconfiguring the Auto Industry, Paris, France, 2001. Lu, F. and Feng, K. (2004) *Fazhan woguo zizhu zhishichanquan qichegongye de zhengce xuanze* [The Policy Choice in Developing China’s Proprietary Car Industry] (Beijing: Beijing University Press).

⁹⁰ Christopher A McNally, China’s State-Owned Enterprises: Thriving or Crumbling? *Asia Pacific Issues*, no. 59 (2002): 1-8. Christopher A. McNally and Yin-Wah Chu, “Exploring Capitalist Development in Greater China: A Synthesis,” *Asian Perspective* 30, no. 2 (2006): 31-64.

⁹¹ Christopher A. McNally, “Strange Bedfellows: Communist Party Institutions and New Governance Mechanisms in Chinese State Holding Corporations,” *Business and Politics* 4, no. 1 (2002): 91-115.

⁹² Andrew Tylecote and Jing Cai, “China’s SOE Reform and Technological Change: A Corporate Governance Perspective,” *Asian Business & Management* 3, no. 1 (2004): 57-84.

people. The agency problem is thus multiplied. The second and related issue is managers' career paths as a bypass to higher official positions. SOE managers are usually appointed by officials, and sometimes are officials themselves. CEOs of the Central government-owned SOEs are normally regarded as vice ministers (*fubuzhangjidaiyu*, 副部长级待遇), while those of local firms are paid as section chiefs (*chujidaiyu*, 处级待遇) or director generals (*jujidaiyu*, 局级待遇). They often end up as officials of a higher position after staying in the firm for a certain period of time, approximately five years.

Their quasi-official status not only shapes the incentives of SOE managers but also makes the agency problem more acute. It curtails the effective monitoring of managerial behavior, distorts management incentive systems, and creates a tendency towards insider control. The Chinese budgetary and financial systems allocate funds without adequate consideration or pricing of risks and probable rates of return. The market for managerial talent is underdeveloped and incumbent managers often maintain their positions despite persistent failures to improve productivity and avoid financial losses. It is common for parts firms to purchase expensive foreign equipment before they have the skills or production volumes to make use of it—and before they rationalized basic work processes, or even developed a consistent strategic focus.⁹³ Much of the expensive equipment ended up in back rooms, gathering dust. Many SOEs remain encumbered by legacy assets, including obsolete equipment and technology, as well as broad social obligations such as health care and worker pensions.

Besides the agency problem, Yasheng Huang points out another contributing factor as *lack of ability*.⁹⁴ He argues that extensive autonomy given to SOEs led to fragmentism and coordination problems in spite of extensive government support. Thun provides an interesting example with the automotive industry in Guangzhou.⁹⁵ The Guangzhou government had considerable leeway in terms of managing capital and sectoral development in their own localities. Despite the Central government's promotion of developing the auto industry throughout 1980s and 1990s, Guangzhou SOEs often took a different route during this critical time period for the localization drive at Guangzhou Peugeot. In the late 1980s and early 1990s, the SOE head office invested in real estate or trading companies in 1991 and 1992 where profits were highest instead of manufacturing operations and local supplier development. Thun also challenges the market preserving federalism argument, which assumes policy convergence among different localities. There exists a range of initial policy approaches across localities, but the policy will converge because the successful examples and policies will be emulated and replicated in other places. Local officials would reassess their own approach, and adopts the most successful strategy. However, the divergence still exists and the learning effect is not as visible because of path-dependency. The problem of not changing is not from a lack of information, but from a lack of sufficient pressure. The competitive pressure created by decentralization was not sufficient to counter the incentives created

⁹³ Interview with a consultant at Shanghai Maple Motor Company in Shanghai (November 27, 2010).

⁹⁴ Yasheng Huang, "Between Two Coordination Failures: Automotive Industrial Policy in China with a Comparison to Korea," *Review of International Political Economy* 9, no. 3 (2002), 538-573.

⁹⁵ Eric Thun, "Keeping Up with the Jones': Decentralization, Policy Imitation, and Industrial Development in China," *World Development* 38, no. 2 (2004): 1289-1308.

by local institutions. In order to change, he argues that there should be either weakening of the influence of existing institutions or strengthening of the pressure for change.

Then one might ask how the SOE reform at the government level changes the agency problem or extensive decentralization in the Chinese economy, as a source for pressure to change. In 1993, the Chinese government adopted major SOE reform policies through corporatization. Corporatization connotes that Chinese SOEs cease to function as mere production units under the supervision of government bureaucracies and are transformed into firms with individual legal status. In China the blueprint for how a corporation should function is contained in the Company Law (enacted in December 1993; effective from July 1994). Corporatization under the Company Law involves major institutional changes for Chinese SOEs such as forming of a board of director, shareholder meetings, and a board of supervisors. Besides the institutional changes, SOE reform and SOE corporatization require some significant underlying changes in the economic system:⁹⁶ 1) evaluation of the state-owned assets and clarify property rights (*chanquanqingxi*, 产权清晰), and 2) to complete separate the government bureaucracy from the company management (*zhengqifunkai*, 政企分开).⁹⁷ To this end, the Central government established the State-owned Asset Management Commission (SASAC) to represent the state's property rights in the jurisdictions and converted SOEs into limited liability holding corporations to take responsibility for the protection and growth of state-owned assets. However, McNally argues that SOE reform still suffers from two problems. First, personnel and management have not yet been separated, because the monitoring organization of SASAC is not directly related to personnel decisions. For example, the Shanghai Economic Commission, the Shanghai Financial Department, and the Shanghai Party Disciplinary Commission still have financial oversight over SAIC, unlike the Shanghai SASAC. Second, there exists serious mismatch of competencies and authority among governing agencies. Party bodies that determine the advancement of state holding corporation executives do not possess the tools to assess individuals based on their management acumen, while state agencies evaluating enterprise performance have little say on personnel changes. Over such issues, Steinfeld argues that one must "bring the state in to get the state out"⁹⁸ while McNally counterargues that bringing the state in to get it out might just create more governance failures.⁹⁹

Other scholars explain SOEs' *lack of motivation* of developing suppliers with heavy dependence on foreign partners for technology as a result of Chinese industrial policy of "exchanging market with technology (*yishichanghuanjishu*, 以市场换技术)." In the 1980s the Chinese Central government adopted this policy as a way to attract FDI while encouraging technology transfer. Through the JV production system, the Chinese government expected that there would be a great learning effect for local auto firms in

⁹⁶ McNally, *Strange Bedfellows*.

⁹⁷ Besides these two changes, the SOE reform official calls for 1) clear definition of rights and responsibilities (*zequanfenming*), 2) scientific enterprise management (*guanlikexue*), and 3) incorporation (*gufenzhi*).

⁹⁸ Edward S. Steinfeld, *Forging Reform in China: The Fate of State-Owned Industry* (Cambridge, UK: Cambridge University Press, 1998), 257. McNally, *Strange Bedfellows*, 112.

⁹⁹ McNally, *Strange Bedfellows* 112.

terms of technology development and managerial skills. With the JV, the Chinese government clearly stated strict regulations for technology transfer, products lines, and the stock share rate of the enterprises. Indeed, even in the national market, Chinese firms in medium and high-technology industries have in general remained dependent on technology transferred from abroad. While achieving substantial success in terms of content localization and capacity building, it has been weak in developing its own technological capabilities and remained, until the last year or two, almost completely reliant on foreign JV partners for advanced automotive technologies.¹⁰⁰ This is because the Chinese partner can fully share the benefits of increased market sales through up-to-date models of foreign partners, without contributing much towards developing its own products. Ironically, this JV formation discourages rather than encourages the Chinese SOEs to develop innovative technology.

Against this theoretical backdrop, at the firm level, I explore the micro-level institutional factors of intra-firm structures and inter-firm relations within the auto group (Table 3.3). The core firm of the group not only structures but also coordinates the relationship among firms (between the assembly plant and suppliers) in its jurisdictions. It also allocates resources within the group, channels investment funds to its subsidiaries, and oversees their development. The powers of automotive industrial groups vary in each city, and the micro-level institutional factors define their control over firms within the group and willingness of developing local suppliers under its own roof. The inter-firm relations within auto group can be operationalized as “unified” and “diversified”. Similar to the macro-level government, unified corporate structure refers to hierarchical control of the core group over the in-group companies. If the core group has unified and achieved full control in the group, it has better capacity in channeling capital and monitoring the development process of sector. On the other hand, diversified corporate structure refers to a system where multiple bureaucratic organizations govern the auto sector.

¹⁰⁰ Kelly Gallagher, “Foreign Technology in China’s Automobile Industry: Implications for Energy, Economic Development, and Environment,” *China Environment Series*, no. 6 (2003): 1-18.

Table 3.3: Varying Mode of Supplier Network Development

Type	JV	IV 1: Relationship to the State	IV 2: Relationship within the SOE	IV 3: Relationship to FDI
Bandwagoning	Beijing Hyundai	Centralized	Centralized	JV
Pre-clusterization	Tianjin Toyota	Fragmented	Centralized	Technology licensing and JV
Obligated embeddedness	Shanghai GM	Fragmented	Fragmented	JV
Disintegration	Beijing Jeep Corporation & Guangzhou Peugeot	Fragmented	Centralized	JV

3. *JV Partners: Global Automakers*

As the major immobile factors in a globalized market, the existence of sound market institutions and clear regulations are considered to be important factors that reel in FDI and affect investors' confidence. However, foreign investors are undeterred by China's inadequate institutional foundations, let alone the infamous bureaucratic mazes and rapidly changing business environment. They are nevertheless willing to assume a certain degree of political risk based on the expected returns of their investments. As early as 1983, automotive companies were among the first foreign investors to make inroads into China to vie for market share in the world's potentially largest automotive market. Since then, MNCs have been another important player in the Chinese automotive development and supplier network development. However, not all major global automakers are proven to be capable of competing, as illustrated in the failures of automotive JVs of Guangzhou-Peugeot in 1998, Beijing-American Motor Company in 1999, and Nanjing-Fiat in 2007.

The operations of MNCs in China are constrained in different ways than in other countries. The Central government regulations require FDI in the most profitable passenger car segment to be a JV. This JV formation restricts operational strategies of MNCs by precluding them from using traditional market penetration tools, such as export and equity investment. It limits two of the most important business strategies of MNCs—the entry mode (JVs) and entry timing. The JV requires approval from the two most influential divisions in China's cabinet—the State Economic and Trade Commission and the State Development Planning Commission.¹⁰¹ This made the foreign side possess little

¹⁰¹ The State Development Planning Commission was renamed as National Development and Reform Commission in 2003. For administrative and regulatory changes in the automotive industry, see Yukyung

control over selecting a partner and compel foreign automakers to embed themselves into the given geography with specific industrial structure and local institutions. In this particular situation, how do they develop their supplier network and assembler-supplier relationship?

In explaining the transactions between assemblers and suppliers, the micro-level governance perspective builds on Williamson's transaction costs-comparative contracting approach.¹⁰² Williamson classifies inter-firm governance into the hierarchical, relational and market-based arm's-length types. Much ink has been spilt in identifying the characteristics of different supplier relationship based on the national origin of automotive companies. The relationship between assemblers and suppliers in the US¹⁰³ and the UK¹⁰⁴ are often described as market-based; Japanese transactions are characterized as relational or obligational; and Korean transactions are depicted as hierarchical and patriarchal.¹⁰⁵ Socio-economic perspectives towards transaction look beyond the corporate structure, thereby highlighting the importance of the macro-level institutions. North Douglass¹⁰⁶ and DiMaggio and Powell¹⁰⁷ emphasize how a country's macro-level institutions shape the formation and evolution of the inter-firm relationships and how different institutional configuration in each country affect the transactional modes in the same industry (Hemmert, 1999). For example, Japanese automakers' development of long-term and obligational transaction mode based on reciprocity and trust with affiliated suppliers is due to the strong bank-firm ties and the cross-shareholding.¹⁰⁸ So it might be natural to ask to what extent the national origin of FDI affects the supplier networks development and the establishment of buyer-supplier relationship. This in turn sheds light on whether the MNCs with different national origin attempt to externalize its own intra-firm networks, inter-firm relationships, and state-industry relations across national borders—the so-called *home country effects*.

Some might argue that different JV models matter in thinking of the national origin and their brand power. Admittedly, different brands have their own brand images and specific specialties. Additionally, popular brands would have more demands and therefore higher economy of scales; however, I highlight successful examples in this

Yeo and Margaret Pearson, "Regulating Decentralized Industries: China's Auto Industry," *The China Review*, Vol. 8, no. 2 (2008): 231-259.

¹⁰² Oliver E Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications* (New York: Free Press, 1975).

¹⁰³ Mari Sako and Susan Helper, "Determinants of Trust in Supplier Relations: Evidence from the Automotive Industry in Japan and the United States," *Journal of Economic Behavior & Organization* 34, no. 3 (1998): 387-417. John McMillan, "Managing Suppliers: Incentive Systems in Japanese and U.S. Industry," *California Management Review* 32, no. 4 (1990): 38-55.

¹⁰⁴ John T. Thoburn and Makoto Takashima, *Industrial Subcontracting in the UK and Japan* (England: Avebury, 1992).

¹⁰⁵ Mari Sako, *Prices, Quality and Trust* (Cambridge: Cambridge University Press, 1992).

¹⁰⁶ Douglass Cecil North, *Institutions, Institutional Change, and Economic Performance* (Cambridge: Cambridge University Press, 1990).

¹⁰⁷ Walter M. Powell and Paul J. DiMaggio, *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1991).

¹⁰⁸ Michael L. Gerlach, "The Japanese Corporate Network: a Blockmodel Analysis," *Administrative Science Quarterly* 37, no. 1 (1992): 105-139.

dissertation. Case selection rules out the importance of product differences on the local supplier development. So, product differences do not matter much, since demands are high for all JV products. Others also argue that the local supplier development depends on the firm strategies; however, unlike the global automaker's entry mode to other countries such as India or Mexico in the form of wholly owned enterprises, Chinese regulations constrain the operational strategies of MNCs. So both different brands and MNCs' business strategies focused on alternative explanations do not explain the variation in supplier network development in Shanghai GM, Beijing Hyundai and Tianjin Toyota.

However, such strands of research fail to fully answer an important question of what happens when these global automakers enter into a country like China with various regulatory frameworks to control the MNCs. The traditional 'global strategy', which is formulated in the developed country context, may not work adequately in emerging markets whose institutional contexts are markedly different from those of the advanced countries.¹⁰⁹ In emerging markets, government institutions play a particularly important role in MNCs' FDI decisions, because host governments can alter their policies quickly, and when FDI policies in host countries change, MNCs may also need to change their strategies.¹¹⁰ In this context, are MNCs transporting their existing assembler and supplier relationships, or developing hybrid forms depending on the institutional context of the foreign country? In this circumstance, it is important to examine how China's regulations on ownership limit compel foreign automakers to embed themselves into the given geography with specific industrial structure and local institutions.¹¹¹ Liu and Dicken have studied how foreign partners fulfilled "obligated embeddedness" by adapting themselves into the existing industrial structure of a given Chinese partner's territories. However, these approaches put heavy emphasis on the domestic conditions and miss the possibility that MNCs could shape the existing industrial structure they have to be embedded. Specifically, their study falls short in accounting for: 1) why some foreign partners have better embedded themselves into the existing industrial structure of a given region and 2) how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness (i.e., licensing cooperation and supplier's prior entry to

¹⁰⁹ Robert E. Hoskisson, Lorraine Eden, Chung Ming Lau, and Mike Wright, "Strategy in Emerging Economies," *Academy Of Management Journal* 43, no. 3 (2000): 249–267. Andrew Delios and Witold J. Henisz, "Political Hazards and the Sequence of Entry by Japanese Firms." *Journal of International Business Studies* 34, no. 3 (2003): 227–41. Mike Wright, et al., "Strategy Research in Emerging Economies: Challenging the Conventional Wisdom," *Journal of Management Studies* 42, no. 1 (2005): 1–33.

¹¹⁰ David W. Loree and Stephen E. Guisinger, "Policy and Non-policy Determinants of U.S. Equity Foreign Direct Investment," *Journal of International Business Studies* 26, no. 2 (1995): 281–99. Witold J. Henisz and Andrew Delios, "Uncertainty, Imitation, and Plant Location: Japanese Multinational Corporations, 1990–1996." *Administrative Science Quarterly* 46, no. 3 (2001): 443–75. Chris Changhwa Chung and Paul W. Beamish, "The Impact of Institutional Reforms on Characteristics and Survival of Foreign Subsidiaries in Emerging Economies," *Journal of management studies* 42, no. 1 (2005): 35–62.

¹¹¹ Weidong Liu and Peter Dicken, "Transnational Corporations and 'Obligated Embeddedness': Foreign Direct Investment in China's Automobile Industry," *Environment and Planning A* 38, no. 7 (2006): 1229 – 1247.

assemblers). In order to fill this gap in the literature, I examine two important factors again in the Chinese context: the entry mode and the entry timing (Table 3.4).

First, in terms of the entry mode, some of foreign automakers proactively devise alternative China strategies instead of reactively responding to Chinese regulation. Even though MNC's entry mode is fixed as JVs with Chinese SOEs, my research reveals that the prior mode of cooperation before JVs establishment and its path dependency are critical for the further cooperation.. Most of the research takes negotiation leading to the JV cooperation as an analytical starting point; however, MNCs tend to start their informal negotiation or market entry preparation in advance. Some global automakers have no prior arrangements and started Chinese operation from JVs. In these cases, global automakers have a burden in developing and identifying the local suppliers. Relatively earlier entrants of such as Shanghai Volkswagen, Beijing-American Motor Company, and Guangzhou Peugeot are great examples. On the other hand, some move from a type of technology licensing agreement with existing local auto manufacturers into a full-blown JV formation. The knockdown assembly is also used in the case of Hyundai's cooperation with Wuhan Wantong in 1996. Such a prior mode of operation serves as a litmus test for more extensive future investment. In the process, the JV operation incorporates local parts makers in various ways. The third mode of engagement is the so-called pre-clusterization of suppliers where the OEM sends major suppliers into the foreign country to form a virtual supply plant prior to the entry of OEM. Toyota in Tianjin helped its major suppliers pre-cluster near their "virtual assembly plant" since mid-1980s, almost 15 years prior to its actual operation in China.¹¹² The last mode of engagement is the follow-the-flag cases, the most common mode of engagement where the OEM enters the foreign country and the suppliers follow suit afterwards. Guangzhou Honda in 1998 and Beijing Hyundai in 2002 closely followed this model.

¹¹² Faith Hatani, "Pre-clusterization in Emerging Markets: the Toyota Group's Entry Process in China," *Asia Pacific Business Review* 15, no. 3 (2009): 369–387.

Table 3.4: MNCs' Mode of Engagement in Entering Foreign Countries

Strategies	Mode of Engagement	Example
No prior to JV operation	Without any prior arrangements, the operation starts from JVs.	Beijing Jeep (1983) Guangzhou Peugeot (1984) Shanghai Volkswagen (1985) Shanghai GM (1997)
Prior to JV operations	Starts from technology licensing agreement with existing local auto manufacturers	Daihatsu in Tianjin (1986): later merged by Toyota
	Establishing a knockdown assembly plant	Hyundai Wuha-Wantong (1996)
Pre-Clusterization	Pre-emptive clustering of suppliers to form virtual assembly plant before the entry of OEM	Tianjin Toyota (2000)
Follow-the-Flag	OEM enters a foreign country followed by suppliers	Beijing Hyundai (2002)

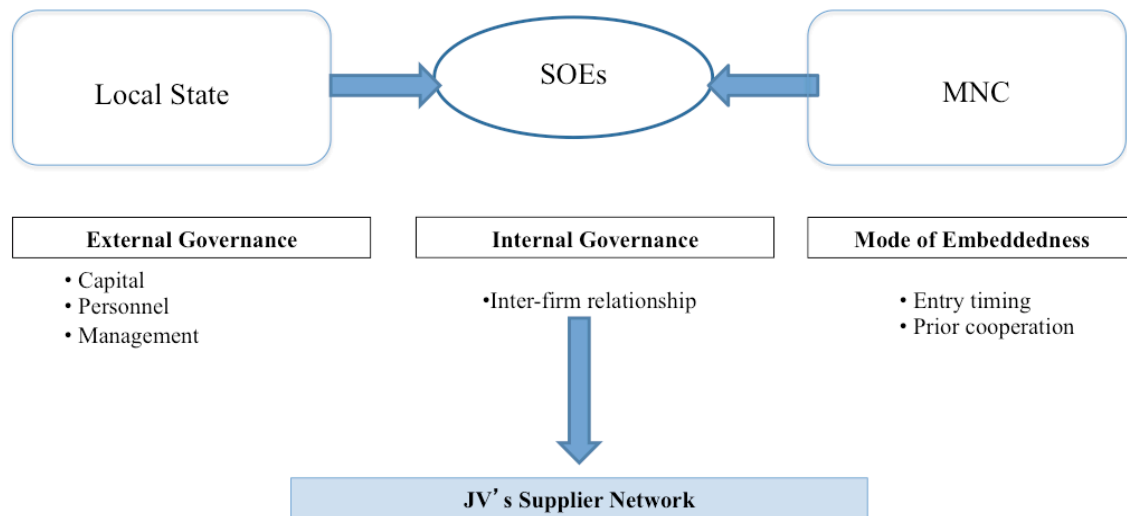
A second important factor is the entry timing in the context of international and national level regulations. In the conventional studies, one of the biggest debates regarding the entry timing is the advantage as early movers. Some scholars argue that early movers can achieve higher performance by benefiting from 1) technological leadership; 2) pre-emption of scarce assets; and 3) establishment of entry barriers for latecomers.¹¹³ Even Lieberman and Montgomery (1998), the representative contributors to the first-mover advantage literature, point out possible disadvantages of early entry, such as missing the best opportunities that may arise later or by acquiring inappropriate resources, both of which could become significant drawbacks and create junk costs as market develops. Early entry does not necessarily yield lasting advantages, as seen in the destiny of three earlier entrants to the Chinese auto market. American Motor Company struggled to build stable relations with Beijing Automotive Industry Corporation, and Peugeot sold its stake in the JV in 1997 to Honda, after losing tens of millions of dollars each year since 1995. Volkswagen is the only successful case, which has held more than 50 percent of the market share in China around 2000. As such success in emerging markets hinges upon whether or not firms can make a series of successful short-term moves rather than simply being early movers.

Especially in the Chinese market, it also matters when the JV entered into the market after China's WTO entry or not. China's WTO entry reformulated the context in which the countries and firms interact by way of tariff regulations and various liberalizing measures. Specifically, China abandoned the local content requirements, leaving the sourcing strategies to companies. I argue that the WTO entry has perversely bestowed sub-national governments to a newfound autonomy in selectively adopting measures of protectionism and liberalization at the sub-national level. As foreign

¹¹³ Roger A Kerin, P.Rajan Varadarajan, and Robert A Peterson, "First-Mover Advantage: a Synthesis, Conceptual Framework, and Research Propositions," *Journal of Marketing* 56, no. 4 (1992): 33–52. Yadong Luo and Mike W Peng, "First Mover Advantages in Investing in Transitional Economies," *Thunderbird International Business Review* 40, no. 2 (1998): 141–163.

companies furnish SOEs (and thus local governments) with technology and capital, local governments manipulate public policy to ensure favorable market conditions for their business partners over JVs in other provinces. I call this process as *fragmented liberalization*, whereby *sub-national* governments selectively adopt measures of liberalization and protectionism rather than wholly adopting liberalizing measures imposed by the WTO on the Central government. I also argue that MNCs are not necessarily the main drivers of liberalization as often assumed in the literature, in that the foreign JV partners foster *fragmented liberalization* in China partly because the JV formation rules inevitably pit regional JV against another, rather than domestic firms vis-à-vis foreign firms. Moreover, the extensive local autonomy and the compulsory JV partnership allowed nonmarket factors such as political bargains and coalitions at the national and sub-national levels to shape Chinese automotive industry.¹¹⁴

Figure 3.2: Independent Variables affecting JV’s Supplier Network Development



¹¹⁴ Vinod K. Aggarwal, “Lessons from European Firm Strategies in Asia,” in Vinod K. Aggarwal, *Winning in Asia, European Style: Market and Nonmarket Strategies for Success* (New York, NY: Palgrave Macmillan, 2001), 257-280. Vinod K. Aggarwal, “Analyzing American Firms’ Market and Nonmarket Strategies in Asia,” in Vinod K. Aggarwal, *Winning in Asia, U.S. Style: Market and Nonmarket Strategies for Success* (New York, NY: Palgrave Macmillan, 2003), 3-25. Nick Bizziouras and Beverly Crawford, “The American Automobile industry in Asia,” in Vinod K. Aggarwal, *Winning in Asia, U.S. Style: Market and Nonmarket Strategies for Success* (New York, NY: Palgrave Macmillan, 2003), 95-138. John Ravenhill, “Nonmarket Strategies in Asia: The Regional Level,” in Vinod K. Aggarwal, *Winning in Asia, European Style: Market and Nonmarket Strategies for Success* (New York, NY: Palgrave Macmillan, 2001), 59-78.

DIFFERENT MODELS

I have categorized the mode of industrial upgrading and supplier network development into four types: obligated embeddedness, pre-clusterization, disintegrating, and bandwagoning (Table 3.5).

1) Bandwagoning (MNC-led development, with a low local supplier presence): Beijing Hyundai

The development pathway for Beijing's automotive industry represents a case where a municipal government and its protégé SOE developed a supplier network by completely relying on a foreign partner. Beijing Automotive Industry Holding Company (BAIC) became a pioneer by forming the first automotive JV in China—Beijing Jeep Corporation, founded with American Motor Company in 1983. However, Beijing Jeep suffered from a lack of local supplier development and disagreements about localization strategy. The Beijing city government and the BAIC displayed weak leadership by failing to aggressively promote Jeep sales or adeptly manage BAIC's fragmented organizational structure.¹¹⁵ BAIC instead rigidly pressed the American Motor Company to follow local content regulations requiring the use of Chinese parts suppliers.¹¹⁶¹¹⁷ Eventually, the JV failed in the market and became “a symbol of conflicting interests, hidden charges, miscommunication and unattained goals.”¹¹⁸

After this failure, Beijing had to wait until 2002 to produce passenger vehicles with the city's second JV—Beijing Hyundai Motor Company (BHMC)—and take its share in the rapidly growing passenger vehicle market. Unlike the first JV, BHMC reaped marked success within three years of operations and turned Beijing into one of China's major passenger car assembly centers along with Shanghai, Guangzhou, and Changchun. Nevertheless, despite its half-century history of producing light trucks and Hyundai's recent breathtaking market penetration in China, Beijing has never succeeded in developing a strong local supplier base and nurturing indigenous auto parts makers. In order to expedite Hyundai's operation and revamp Beijing's ailing auto industry, BAIC decided to source most of its parts from Hyundai's own Korean-based suppliers and relegated the majority of sourcing control to Hyundai. This serves as a typical case of the

¹¹⁵ Interview with a former manager at BAIC-Foton in Beijing (June 21, 2009). Keun Lee, *Chinese Firms and the State in Transition: Property Rights and Agency Problems in the Reform Era* (Armonk, NY: ME Sharpe Inc., 1991) and Eric Thun, *Changing Lanes in China: Foreign Direct Investment, Local Government, and Auto Sector Development* (New York, NY: Cambridge University Press, 2006).

¹¹⁶ For details of BJC, see Eric Harwit, *China's Automobile Industry: Policies, Problems, and Prospects* (Armonk, New York: M.E. Sharpe, 1995), 67-91 or Jim Mann, *Beijing JEEP: A Case Study of Western Business in China* (Boulder, Colorado: Westview Press, 1997).

¹¹⁷ Interview with a former manager at BAIC in Beijing (August 14, 2009). Lee, *Chinese Firms and the State in Transition* and Thun, *Changing Lanes*.

¹¹⁸ Gregory Noble, John Ravenhill, and Richard F. Doner, “Executioner or Disciplinarian: WTO Accession and the Chinese Auto Industry,” *Business and Politics* 7, no. 2 (2005): 5. Beijing Jeep Corporation never found a mass market for its sports utility vehicles and struggled into the 1990s to produce just more than 15,000 to 20,000 vehicles. Its domestic JV partner, BAIC, had neither aggressively promoted Jeep sales nor swiftly implemented organization reform on the account of its fragmented organizational structure and the lack of strong leadership in the Beijing municipal government.

“follow-the-flag” strategy, where suppliers only invest in foreign countries after the parent company has established its assembly lines.

Many researchers have depicted the Beijing city government and BAIC as two of the weakest domestic players in developing China’s auto industry. I argue, however, that Beijing found its own strategic advantages by combining both laissez-faire policies and protectionist measures. The Beijing city government relied on local protectionism by using government procurement to promote Hyundai’s model for its own taxi market. At the same time, it followed a more laissez-faire approach by allowing Hyundai to bring its Korean suppliers to China. Beijing did not receive much political criticism for failing to nurture indigenous companies under this arrangement, since it framed the decision as a consequence of WTO rules requiring China to treat foreign and domestic companies more equally. Such mixed use of protectionism and liberalization demonstrates the importance of sub-national government industrial policy in the context of *fragmented liberalization*, a topic I will discuss in greater detail later in this dissertation.

2) *Pre-clusterization (MNC-led development, with a high local supplier presence): Tianjin Toyota*

Tianjin, one of the most historically important heavy industry bases in China, spurred its auto industry development with the establishment of Tianjin Automotive Industry Company (TAIC) in 1983. TAIC incorporated the city’s five existing auto assembly plants and forty-five parts factories. However, the Central government’s alternating attempts to decentralize and centralize China’s automotive industry have disrupted the Tianjin Municipal government’s auto sector development, especially because of Tianjin’s proximity to the Central government and its status as a direct-controlled municipality by the Central government. Despite numerous administrative changes at the SOE level, however, TAIC was able to develop a strong supplier network due to its unique strategy of attracting FDI. While Shanghai, Guangzhou, and Beijing participated in China’s automotive sector reform by establishing 50:50 JVs with MNCs, Tianjin established a technology-licensing agreement with the Japanese small carmaker Daihatsu in November 1986. TAIC and Daihatsu formed a seven-year contract to produce the Charade (Xiali in Chinese), which became the number one small car and the number one taxi model in China from 1990 to 1998. The Charade not only experienced five major upgrades and hundreds of improvements, but also had three generations of products, all of which were developed with their own independent intellectual property rights. As a result of TAIC’s technology licensing agreement with Daihatsu, Tianjin Xiali became China’s second-largest overall carmaker in 1991-1997 after Shanghai Volkswagen.

Tianjin’s cooperation with Daihatsu also opened the door for a JV with Toyota in 2000. Toyota realized the value of the Chinese market in the late 1990s, only after the Chinese government had declared a five-year moratorium on the launching of new assembly JVs in 1995. In this context, Toyota and its suppliers confronted an unpredictable situation in the 1990s regarding 1) whether it could establish an assembly

plant, and 2) if so, when the core firm's local operations would start. Consequently, Toyota had to bear the status of an absolute late entrant to the Chinese market when it finally obtained the Chinese government's permission to form a JV with TAIC in 2000.

These idiosyncratic circumstances helped Tianjin build up strong local parts suppliers in its cooperation with Toyota, a company that is known for having a closed supplier network. First, Toyota merged with Daihatsu as a way to create a foothold in Tianjin and overcome its disadvantage as an absolute latecomer to the Chinese market. Toyota increased its equity stake in Daihatsu from 17 percent to 33 percent in September 1995, establishing a controlling interest under the Japanese commercial law. It then increased its stake in Daihatsu to more than 50 percent in early 1998, converting the company into a legal subsidiary of Toyota. Second, Toyota's late entry into the Chinese auto market pressured member firms in the Toyota Group to devise an entry strategy for China that differed from Toyota's strategies in other parts of the world. Toyota's first-tier suppliers, such as Nippon Denso and Aishin Seiki, entered the Chinese market starting in the early 1990s and formed a virtual supply plant before the core firm fully entered the market. This pre-clusterization strategy contrasts to the common practice of "follow-the-leader" FDI investment, which Toyota's suppliers followed in Southeast Asia in the 1960s and the United States in the 1970s. In other words, the Tianjin Municipal government's licensing cooperation decision with Daihatsu and its efforts to develop local suppliers aligned well with Toyota's particular situation in China, where the automaker encouraged its parts suppliers to enter the market before the parent company.

These circumstances also explain why Toyota chose TAIC as its first JV partner in the passenger vehicle market. In the late 1990s, China's impending accession to the WTO prompted preemptive price cuts among Chinese automakers, and Tianjin Xiali was rapidly losing market share due to the entrance of new competitors such as Shanghai GM. Even though Toyota's first bid with the strongest auto SOE in Shanghai failed, Toyota made the strategic movement of approaching the relatively weak partner under the close supervision of the Chinese government of the Central government. In the end, the Tianjin Municipal government and TAIC began to look for another company to rescue Tianjin Xiali, and thus the Central government-owned First Auto Works merged with TAIC in 2002. Toyota strongly supported this merger between the two Chinese automakers, which enabled Toyota to gain access to the Central government-owned SOE (First Auto Works) and expand its operations nationwide.

3) Obligated Embeddedness (state-led development, with a high local supplier presence): Shanghai General Motors

Shanghai's automotive industry development followed the developmental-state model, but at the local level. Taking advantage of its status as a traditionally strong industrial base, Shanghai pursued various industrial policies to develop its local auto suppliers starting in the early 1980s. The Shanghai government developed a hierarchical institutional structure to govern its auto industry, which gave it a greater capacity to channel capital and monitor the sector's development.

Yet the city's first JV, with Volkswagen, did not initially help the Shanghai government's effort to develop local suppliers—as Volkswagen was keen on just importing knockdown kits to China for assembly purposes only. Consequently, Volkswagen's JV model, the Santana, achieved only a 3 percent local content rate by early 1987. However, the Shanghai government and Shanghai Automotive Industry Company began flexing their muscles by supporting measures to help Volkswagen identify and develop qualified local suppliers. The Shanghai government not only established a localization office to streamline the development process, but also charged customers an extra 28,000 RMB (\$4,300) per Santana to fund parts localization. In order to make up its decline in Europe, Volkswagen was desperate to succeed in the Chinese market. The Shanghai government's localization initiatives, combined with Volkswagen's desire to succeed in China, led to Volkswagen increasing its local content rate to 93 percent by 1997. Shanghai Volkswagen captured about 51 percent of the Chinese passenger car market by 1997, establishing it as the dominant market player throughout the 1990s.

Shanghai's success with Volkswagen carried over into the city's second automotive JV, a partnership with GM. Shanghai held the upper hand when foreign automakers entered bids to join the city's second automotive JV, because: 1) many global automakers wanted to enter the Chinese market before China's entry into the WTO, and 2) Toyota, GM, and Ford had all placed bids to be Shanghai's JV partner. For this second JV, the Shanghai government required the foreign automaker to achieve a higher level of technology cooperation than Volkswagen had established. As a result, GM, which entered the winning JV bid, ended up providing an unprecedented level of technical support for the JV by establishing the Pan-Asia Technical Automotive Center with SAIC. This center not only contributed to Shanghai's local supplier development, but it also put huge pressure on other global automakers such as Volkswagen to increase their R&D activities in China and provide more up-to-date models. As such, the Shanghai GM case shows how the Shanghai government led the process of localization in the Chinese auto sector and helped its global automaker partners embed themselves into Shanghai's existing industrial structure.

In addition, Shanghai GM is at the forefront of the merger and acquisition (M&A) wave in China, which GM sees as a way to extend its supplier network throughout the country. For more than ten years, M&A has been a central theme of the global automobile industry, brought on by the automakers' need to ensure sustainability and also to contend with inconsistent and excess production capacity. However, M&A activity is constrained for MNCs, because foreign automakers are limited to two JVs in China. Yet MNCs can extend their networks in China via the help of their Chinese JV partners or their international affiliates. GM's development in China is one such case. At present, the GM group has the most extensive network of automotive production in China, anchored in eight cities (Shanghai, Shenyang, Liuzhou, Yantai, Chongqing, Nanchang, Jingdezhen, and Anshun). GM itself has two JVs in China, Shanghai-GM and Jinbei-GM (in Shenyang) to produce passenger vehicles and off-road vehicles, respectively. But because it is not allowed to establish a new JV in passenger-vehicle production, GM has persuaded its existing Chinese partner, SAIC, to take over other local competitors such as

the Liuzhou Automobile Plant (the biggest minivan producer in China) and a car-assembly plant in Yantai, Shandong province. In effect, these new JVs are considered to be an extension of GM's partnership with SAIC according to Chinese government regulations. Thus, the Shanghai GM case provides an interesting avenue to examine how strong regional players' takeovers of minor regional players affect local suppliers' industrial upgrading and the cross-regional expansion of suppliers.

4) Disintegration (State-led development, with a low local presence): Failed JVs

In a globalized market, the existence of sound market institutions and clear regulations in a country are considered to be important factors that reel in FDI and affect investors' confidence. However, foreign investors have not been deterred by China's inadequate institutional foundations, infamous bureaucratic mazes, and rapidly changing business environment. Even under these circumstances, investors have been willing to assume a certain degree of political risk in China based on the expected returns of their investments. As early as 1983, automotive companies were among the first foreign investors to make inroads into China to vie for market share in the world's largest potential automotive market. However, not all major global automakers proved themselves capable of competing, as illustrated in the failures of automotive JVs Guangzhou-Peugeot in 1998 and Beijing-American Motor Company in 1999. The most commonly cited explanation behind the failure of these two JVs, as well as the failures of other JVs in the Chinese market, involves local content requirements.

Guangzhou Peugeot followed a development path very similar to the JV between BAIC and AMC discussed earlier in this chapter. In the Peugeot case, the local Chinese government in Guangzhou pressured the foreign auto company to increase local content requirements, but did not institute any specific policies that facilitated this goal. Despite the Chinese national government's promotion of auto industry development throughout 1980s and 1990s, the Guangzhou SOEs often took a different route. In the late 1980s and early 1990s—the critical time period for the localization drive at Guangzhou Peugeot—the SOE's head office decided to invest in profitable real estate or trading companies rather than investing in manufacturing operations and local supplier development. In addition, Peugeot came into the Chinese market with its most outdated model—the Santana—and wanted to take advantage of cheap Chinese labor for knockdown assemblies rather than to invest in local industrial upgrading. After over a decade of friction over the sourcing strategies and local content regulations, Peugeot retreated from the Chinese market by selling all of its factories and facilities to Honda in 1997. As in the case of Guangzhou Peugeot, Chinese local governments' emphasis on local content requirements often hampered automotive JVs' overall health.

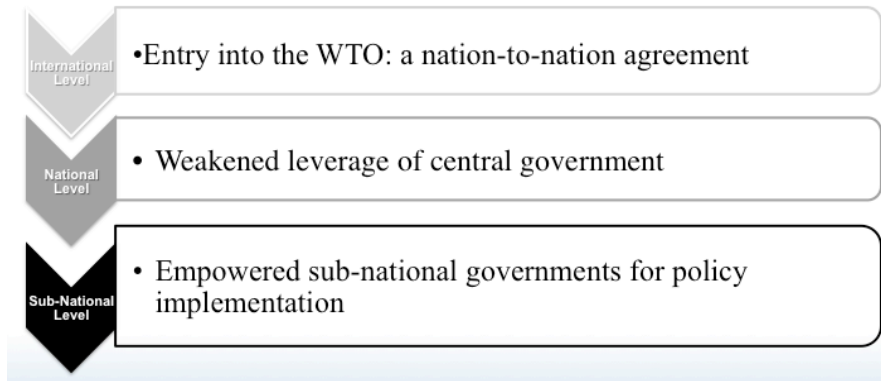
Table 3.5: Different Pathways to Supplier Network Development

	High local presence	Low local presence
State driven	Obligated embeddedness	Disintegration
MNC driven	Pre-clusterization	Bandwagoning

FRAGMENTED LIBERALIZATION: THE WTO RULES AND SUB-NATIONAL LEVEL COMPLIANCE

In exploring the effect of international linkages on regional economic development in China through supplier networks development in automotive JVs, I find that China’s WTO entry ironically empowers the local government by constraining various interventionist policies that are available at the central government level. The theory that I develop is what I call *fragmented liberalization*, whereby sub-national governments continue to selectively adopt measures of liberalization and protectionism against the wholesale liberalizing measures imposed by the WTO onto the central government (Figure 3.3). WTO entry weakened the leverage of the central government to some extent and ironically allowed sub national governments to pursue their own policies. At the sub national level, SOEs in alliance with MNCs pursue their industrial upgrading and develop local companies. MNCs in order to survive in fragmented market environment lobby for a mix of protectionism and liberalization depending on market competition and market entry mode.

Figure 3.3: Fragmented Liberalization



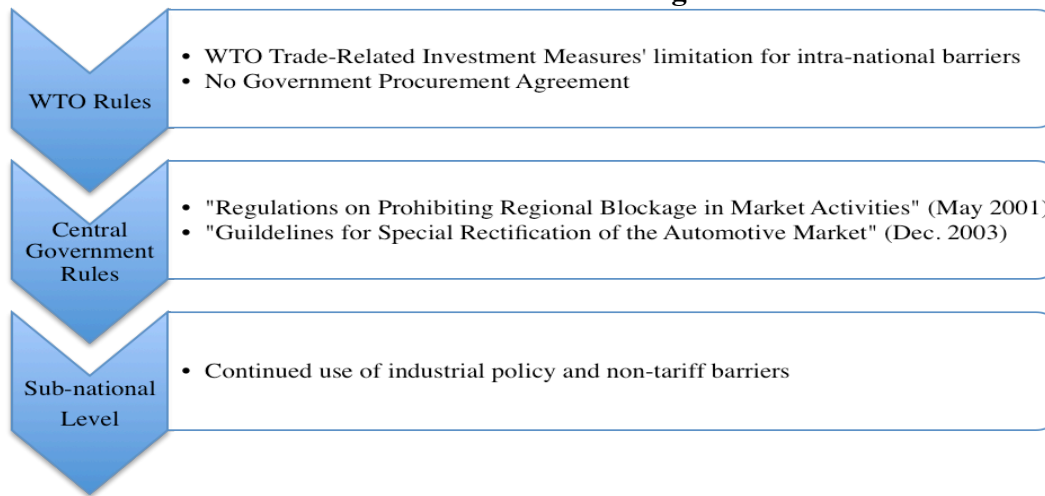
Sub-national government level industrial policy is best represented in the government procurement. Most of the local government use various informal and formal ways to encourage the purchase of locally produced JV brands for local taxi markets as a way to create local protectionist barriers. As the empirical chapters illustrate in further detail, not only Shanghai but Beijing as well heavily rely on locally produced auto models for their local taxis. How do the WTO rules and central government regulation deal with the rampant local protectionism that hampers the free market competition and the creation of integrated national market?

At the international level, TRIMs and the WTO's non-discrimination principle (Article III: 4 of GATT) do not speak directly to local protectionism. According to those rules, China cannot maintain separate regulations for domestic and imported products once foreign goods are in the Chinese market. However, the rules do not directly control cases where high *intra*-national barriers (rather than *inter*-national barriers) hamper the entry of non-local goods into certain local markets. At the national level, the Central government has enacted several legal provisions to combat regional protectionism and anti-competitive behavior since 1980. Most recently, in 2003, nine government bodies—including the Ministry of Commerce, Ministry of Transportation, State Administration of Taxation, and State Administration for Industry and Commerce—collectively issued “Guidelines for Special Rectification of the Automotive Market” to counterbalance local protectionism in the automotive industry. However, the Central government often turns a blind eye to the implementation of such legal provisions with the incentives of supporting the development of certain local industries or has less capacity to implement nation-wide. For example, in order to revamp the auto industry in Beijing, the Beijing Municipal government was able to get away with implementing partial local protectionism for Hyundai in its own city. China's distinctive pattern of encouraging *intra-national* competition between regional JVs rather than competition between foreign and domestic companies motivates foreign companies to support protectionism rather than to push for further economic liberalization. MNCs become one of the major beneficiaries of tacit protectionism and fragmented liberalization in China.

Local protectionism in the taxi market and the government procurement fleet change is an especially significant example of sub-national compliance with the WTO rules. China has not signed the WTO's Government Procurement Agreement (GPA), which would open the door for fair competition when foreign companies bid to supply goods and services to China's government. More than two-thirds of American states and all sub-central entities in the European Union are covered under the GPA. Given that government procurement accounts for about 10 to 15 percent of GDP in most countries, China's refusal to sign the GPA provides huge leeway for the country's sub-national governments to create arrangements that serve their own interests. The United States and other GPA parties have demanded that China include sub-national entities and certain SOEs in China's GPA, but these demands have not included SOEs in purely commercial activities—such as automakers.¹¹⁹ Therefore, the automotive industry will not be included in the GPA even after China signs it, and regional governments will maintain significant leeway in their dealings with automakers. Continued local protectionism demonstrates how sub-national governments selectively apply national regulations at the sub-national level and navigate through possible loopholes in WTO regulations

¹¹⁹ Demetrios Marantis, “The WTO Government Procurement Agreement: A Tremendous Opportunity for China,” Consulate of the United States of America in Shenyang, China (2010) <http://shenyang.usembassy-china.org.cn/wto-gpa.html>.

Figure 3.4: China's Local Protectionism since Joining the WTO



CONCLUSION

This chapter provided an overview of my theoretical framework to set the groundwork for further detailed case analysis in the following chapters. I conceptualized the global-local linkages focusing on three actors of local governments, SOEs, and MNCs, while considering how they interact in the context of changing international, national and regional regulations. In so doing, I suggested the importance of tracing the interaction among those three actors in developing local supplier development. As I specified in Chapter 2, the literature on global commodity chains pays significant attention to MNC's global management experience and operating strategies from its previous ventures in emerging countries and understands China strategies in the context of global strategies. However, this approach considerably neglects regional institutions as influential factors in the process of industrial upgrading. On the other hand, institutionalists place significant emphasis on indigenous institutional structures and their capacity to make MNCs' embed in the local structure. As an attempt to strike a happy medium between these two perspectives, my theoretical framework and research design examines the interaction of both sides from the prior-operation mode leading up to JVs and various actors in supplier network development. In emerging markets like China, government institutions play a particularly important role in MNCs' FDI decisions, because host governments can alter their policies quickly, and when FDI policies in host countries change, MNCs may also need to change their strategies. In this context, MNCs formulate alternative strategies to their traditional global strategies which are formulated in the developed country context, which is greatly affected by the entry mode of leading up to JV formation and the entry timing—be it before or after China's WTO entry. On the other hand, changing regulatory framework at the international and national levels also helps us rethink the role of sub-national governments in terms of manipulating the mixed use of liberalizing measures and protectionist schemes to promote the locally based JVs and parts companies. Therefore, it is noteworthy that local governments and SOEs do not necessarily have aligned interest and that MNCs and SOEs have contradicting interest. Sometimes, MNCs are also a force for protectionism as they find it

conducive to their business operations under certain conditions, and local governments also want to subvert the constraining rules at the international and national levels.

CHAPTER FOUR BEIJING: BANDWAGONING WITH A FOREIGN PARTNER

INTRODUCTION

The history of Beijing's auto production goes as far back as 1958 when the Beijing government-owned Beijing Auto Works (*Beijingqichezhizaochang*, 北京汽车制造厂) produced a small Jeep, *Jinggangshan*, to meet the national planning of producing commercial vehicles. Due to the geographical proximity to the Central government, the auto industry of Beijing city was situated at the forefront of reform measures in the automotive industry. As a measure to streamline an extremely fragmented auto industry, the Central government implemented two reform measures since early 1970s. First, the Chinese Central government asked the regional government to merge auto-related firms in their own regions. Beijing Auto Works was renamed as Beijing Automotive Industry Corporation (BAIC) in 1973 by merging scattered auto-related firms in Beijing under different ministries. Second, beginning in 1984, reform-minded leaders including Zhao Ziyang and Zhu Rongji invited FDI as an instrument to consolidate the fragmented industry. BAIC became a pioneer in forming the first automotive JV in China—Beijing Jeep Corporation (BJC) with American Motor Company (AMC) in 1983. However, BJC failed and BAIC had to wait until 2002 to produce a passenger vehicle with its second JV with Hyundai Motor (Beijing Hyundai Motor Company or BHMC) to take its share in the rapidly growing passenger vehicle market. Unlike the first JV of BJC, the late participant of BHMC reaped marked success within three years of operations and turned Beijing into one of the major passenger car assembly centers of China along with Shanghai, Guangzhou and Changchun.

Nevertheless, despite its half-century history of producing light duty trucks, supplying parts to First Auto Works, and recently breathtakingly penetrating into the market, Beijing has never succeeded in developing its strong local supplier base and nurturing indigenous auto parts makers within its auto group to supply the final assembly. Most of the major indigenous parts development took place in the Shanghai and Jiangsu areas, and Beijing's contribution is minimal at best. With its first JV with AMC, BAIC's sourcing had two characteristics. First, it did not focus fully on the development of the local suppliers, instead it relegated the responsibility to the foreign JV partner. Second, it sought sourcing from Chinese parts makers in other regions. Such sourcing patterns eventually contributed to the near-failure of BJC. Nevertheless, this practice has not changed even with BAIC's successful passenger car project with Hyundai. In order to expedite Hyundai's operation and revamp the ailing auto industry, BAIC decided to capitalize on the foreign side by sourcing most of its parts from Hyundai's own suppliers and relegating the majority of control over sourcing to Hyundai.

Given that auto parts account for two-thirds of the total auto value, auto supplier development is one of the ultimate goals and requirements to develop a successful auto sector. Despite the Central government's consistent emphasis on developing a local supplier network, why did Beijing reap minimal success? How can we explain Beijing

Municipal government's lack of capacity in assisting industrial upgrading of indigenous firms?

This chapter analyzes the factors explaining Beijing's weak local supplier network development with emphasis on three actors: 1) the Beijing Municipal government, 2) the government-owned auto group (the BAIC), and 3) the foreign JV partners of AMC and Hyundai. The capacity and willingness of involved parties in local supplier development are evaluated based on three independent variables: 1) the macro-level governance, 2) the micro-level governance, and 3) the way foreign partner embed itself to Beijing's institutional and industrial structures. First, the macro-level governance refers to government policy and governing institutions over the auto sector in Beijing—both of which serve as ways to test the government's ability to control and manage the development process. Examining the government's industrial policy goals and incentive structure for the government leaders will also reveal the leadership's willingness to develop the local supplier network. Second, at the firm level, I explore the micro-level institutional factors of intra-firm structures and inter-firm relations within the auto group. The auto SOEs (*qichejituan*) are large business groups consisting of the auto assembly plants and supply firms through the consolidation process. The auto group structures and coordinates the relationship among firms (between the assembly plant and supplier) in its jurisdictions. It channels investment funds to its subsidiaries and oversees their development. The powers of automotive industrial groups vary in each city, and the micro-level institutional factors define their control over firms within the group and willingness to develop local suppliers under its own roof.

This chapter also examines the capacity and willingness of the actors involved in developing the local supplier during the following two stages: 1) BAIC's first JV with AMC from 1973 to 2000, and 2) a second JV with Hyundai from 2002 to 2010. The first localization regime of BJC was marked as the lack of supplier development and its path dependency, which eventually created tension within BJC over local content. BJC continued to limp along, and eventually abandoned its local suppliers in favor of Shanghai suppliers. The second localization regime began with the JV with Hyundai to produce passenger cars—BAIC's first project in passenger vehicles. The shift from the first to the second regime is also marked by the change in Beijing's strategy in localization as well as by the elimination of mandatory local contents regulation followed by China's WTO entry in 2001. Under the second regime, BAIC jumped on the *bandwagon* of acquiring a foreign partner and began to heavily rely on Hyundai's Korean suppliers. As I will explain later, this in turn ignites tension between Beijing partner and Hyundai.

The chapter is organized as follows: the first section discusses the history of auto industry development in Beijing as a way to grasp the path-dependency; then moves onto the macro and micro level institutional factors of Beijing's auto sector in the first regime from 1973 to 2000; the second section examines the second localization regime since 2002 – JV with Hyundai and the post WTO entry. In doing so, I demonstrate that Beijing delayed local industrial upgrading by breeding fragmentation or, in some cases, disintegration of the supplier network. Beijing has decentralized government institutions governing the auto industry; BAIC has relatively weak control over its in-group

suppliers; the foreign partner of Hyundai has a closed supplier network with its Korean suppliers. However, with the entry of WTO and the abolition of local content requirements, the Beijing government was able to create its own comparative advantage in capitalizing on the new liberalizing measures to enable Hyundai to replicate its supplier chain in Beijing. The last section provides implications of weak local supplier development in the JV partnership and Beijing's industrial capacity building.

FIRST LOCALIZATION REGIME (1976-2000): FAILED ATTEMPT OF FORCED LOCALIZATION

Established in 1958 as a SOE of Beijing Municipal government, Beijing Auto Works (北京汽车制造厂) had been one of the leading light duty truck and Jeep manufacturers in China.¹²⁰ Up to the mid-1990s, the Chinese auto market was centered on commercial vehicles like buses and trucks, while cars were viewed more as production goods rather than consumer ones. Auto consumers also included government organizations or various SOEs. Therefore, the focus of auto development heavily tilted towards producing commercial vehicles and import substitution. In the 1960s during the Cultural Revolution, Mao Zedong's "Self Reliance (*ziligengsheng*, 自力更生)" policy implored each province to build at least one automotive factory to achieve import substitution, regardless of any actual productivity or scale of economies.¹²¹ Each regional government created its own protégé of state-owned automotive manufacturers. Accordingly, the automotive industry became extremely splintered over 130 automakers and 2,000 to 3,000 parts manufacturers throughout the late 1980s.

Through the Central government's effort to streamline extremely fragmented auto industry, Beijing Auto Works was renamed as Beijing Automotive Industry Corporation (BAIC) in 1973 by merging scattered auto-related firms in Beijing under different ministries. In 1983, the Beijing city government set out to develop the auto industry by having BAIC as the main driver and introduced FDI in the form of a JV.

Fragmented Institutions Governing the Auto Industry

As a result of the lack of private actors, the role of the regional government and organization of governing institutions in a given industrial sector decides their ability to control and coordinate the sectoral development. In addition, extreme fragmentation and decentralization in the automotive industry renders the role of regional government and

¹²⁰ During the turmoil of the Cultural revolution, the total production of cars, trucks and other vehicles in the whole nation were dropped from 55,861 to 25,100 in 1968. Eric Harwit, *China's Automobile Industry: Policies, Problems, and Prospects* (Armonk, NY: M.E. Sharpe, 1995), 21.

¹²¹ For fragmented bureaucracy, see Kenneth Lieberthal and Michael Oksenberg, *Policy Making in China* (Princeton, NJ: Princeton University Press, 1988). Kenneth Lieberthal, "Introduction: the 'fragmented authoritarianism' model and its limitations," in K. Lieberthal and D. Lampton, et.al., *Bureaucracy, Politics, and Decision Making in Post-Mao China* (Berkeley, CA: University of California Press, 1992). Jae Ho Chung, "Preferential Policies, Municipal Leadership, and Development Strategies," in Jae Ho Chung (ed.), *Cities in China: Recipes for Economic Development in the Reform Era* (London: Routledge, 1999). Jae Ho Chung, *Central Control and Local Discretion in China* (New York: Oxford University Press, 2000).

its protégé prominent in promoting the sectoral development and guiding the SOEs. The government controls capital, personnel, and management of the auto business group. For a capital-intensive industry like auto, access to capital is significant. In terms of capital, the government and government-owned banks are the single most important source; because bank lending was controlled by the state, equity markets were not yet existent, and informal lending sources were insufficient for such a capital intensive industry development like the auto industry. In terms of personnel and management, the leaders of SOEs are basically party members who are appointed by the government and who often return to government positions. As such, the sector would develop much faster if the government develops mechanisms and institutions to better manage and channel its investment into the sectoral development. The more unified and coordinated the institutions governing the auto industry, the more effective the industrial efforts outcome would be.

Unfortunately, the Beijing city government suffered from fragmented institutions governing the auto sector which in turn created coordination problems in managing capital and monitoring the development process of auto suppliers (Figure 4.1). In essence, the problem was the lack of agency, and multiple municipal bureaus were in charge of governing the auto industry. Beijing suffered from sporadic efforts of merging inefficient firms without specific plans to create an auto group. Before the Cultural Revolution, there were no auto assembly plants in Beijing although it tried to develop light duty truck and off-road motor vehicles in the 1960s. Instead, there were dozens of auto parts-making plants. Based on the auto parts-making experiences, the Beijing Municipal government established the Beijing Auto Plant in 1965, developing off-road vehicles. In 1968, the Second Auto Repairing Plant in Beijing started trial production of its light duty truck. In 1972, Beijing established the Erligou Auto Plant and renamed it as the Second Auto Plant of Beijing. In 1973, the Beijing Automotive Industry Company (BAIC) was established by merging the above two auto plants with eight other auto-parts plants. With this development of the auto sector, the responsible authorities were shifting as well, creating fragmented institutional structures within the auto governing body. The auto office in Beijing was not granted separate status within the Municipal government, but was recognized as the head office of the BAIC. The head office was staffed with bureaucrats from the governing ministry rather than with auto experts. This led to the problem of executing the “discipline” that required the efficient use of investment over the auto firms.¹²²

Then what explains such problems of fragmented institutions? First of all, such a fragmented institutional structure is linked to the Beijing city government’s lack of willingness to develop the auto industry. The Beijing government itself followed inconsistent industrial policies, oscillating between its identity as the cultural and political centers and the industrial development. In 1956, the Central government set the first “urban development plan” for Beijing to emphasize Beijing’s role as the political

¹²² Alice H. Amsden argues that imposing strict performance discipline on the business actors are the key for the government to make the best out of providing financial and political supports to develop specific business actors or certain sectors. For details, please see her book, *Asia’s Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989).

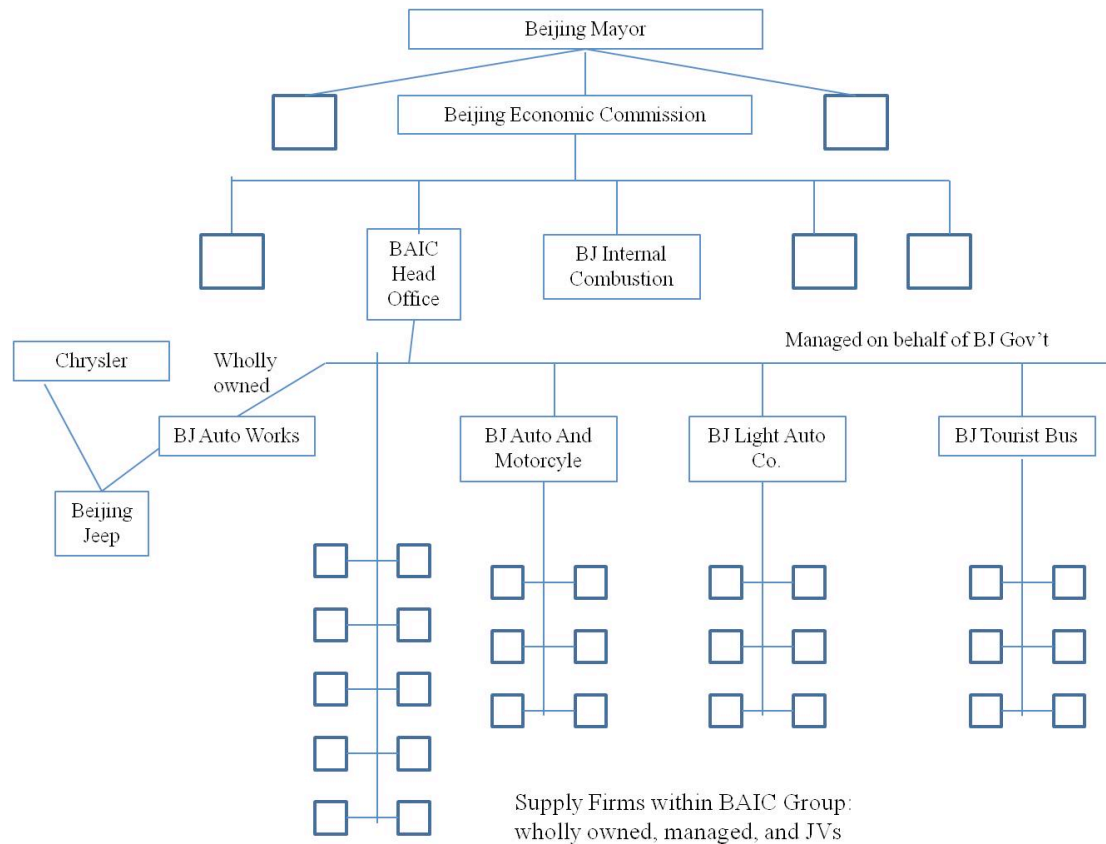
and cultural center. However, Beijing lobbied for a shift into a “comprehensive industrial base” and invested in the heavy industry at the expense of urban services between 1957 and 1978. The local auto industry benefited greatly from this emphasis, and until the late 1980s, the Beijing auto sector was considered to be one of the strongest in the country. However, in the 1990s, the leadership shifted its focus to the IT industry as the strategic sector. Beijing wanted to focus on service, high-tech and other knowledge-based industries that capitalized on the city’s strong educational infrastructure including Beijing University and Qinghua University. This strategy turned out successful until the outburst of bubble in China’s IT industry in the early 2000s.¹²³ From then on, the Beijing government set out to modify its industrial development plan, moving the emphasis from the IT industry to the manufacturing industry, particularly the automotive sector.

Secondly, the Beijing city government felt pressure not to favor its local firms over non-Beijing firms in promoting certain actors in its locality. Contrary to the common misconception of how Beijing’s geographical proximity to the Central government would allow the Beijing government to gain more support for its development projects, the auto development story shows exactly the opposite. The Beijing city government and party leaders concurrently serve as members of the central committee of the Chinese Communist Party and politburo, so the Beijing city government refused to enact policies that would blatantly favor Beijing firms over non-Beijing firms.¹²⁴ This organizational and personnel overlap with the Central government limits the Beijing government’s potential for autonomous action. This has implicitly encouraged local leadership to be more responsive to central policies in order to give a good impression to the central leaders for future career promotions, since most of them tend to be promoted straight from the Beijing government to the Center. Therefore, the Beijing Municipal government saw the need to develop the auto industry upon the Central government’s strong advocacy for creating national champions and implementing import substitution, but it did not take any action to coordinate the auto development process.

¹²³ Eric Thun and Adam Segal, “Thinking Globally, Acting Locally: Local Governments, Industrial Sectors, and Development in China,” *Politics & Society*, Vol. 29, no.4, (2001): 1-32.

¹²⁴ Interview with a former manager at BAIC-Foton in Beijing (April 29, 2009).

Figure 4.1: Governing Institution and Firm structure in Beijing's Auto Industry¹²⁵



Decentralized Firm Structure And Coordination Failure

Chinese auto groups (*qiyejituan*, 企业集团) are coalitions of firms, interwoven with complex legal, administrative, financial, and transactional ties under the control of a core firm.¹²⁶ The core firms of these *qiyejituan* serve as intermediaries between the state and individual firms, and have extensive administrative influence over their member firms (both SOEs and JVs). With China's drive to catch up with the developed countries, the Central government has shown its will to take the strategy of promoting SOEs as its main vehicle, instead of privatizing the large and medium SOEs. It planned to transform them into "modern enterprise corporations" in which the state retained at least majority shareholdings. Since the mid-1980s, the government adopted (*Zhengqifenkai*, 政企分开), the separation of the state from enterprises by reducing its control over the auto industry and affiliate local firms with local business groups under the head office. The process, speed and the subsequent impact of *zhengqifenkai* have varied.

¹²⁵ Thun, *Changing Lanes*, Chinese Statistical Yearbook (1998-2007).

¹²⁶ Lisa A. Keister, "Engineering Growth: Business Group Structure and Firm Performance in China's Transition Economy," *American Journal of Sociology*, Vol. 104, no. 2 (1998): 404-440.

The major problem of Beijing's auto group, BAIC, comes from the perennial issue of SOEs: the agency problem deriving from vague property rights. In Beijing, the head office within the group is neither capable nor willing to develop the local suppliers and coordinate the development of firms under its own roof, because the in-group firms are managed in a fragmented way.¹²⁷ The current auto business group of BAIC was formed originally in 1973 by pulling together firms from the Beijing Automobile Company, and other ministries—primarily the Ministry of Machinery and Electronics, the Agriculture Ministry. BAIC retains weak control and fragmented coordination over some firms under its own group due to various firm origins.

The Beijing auto group consists of two major types of firms with different property rights: 1) the fully-owned firms (*quanziqiye*, 全资企业) and 2) the managed firms (*daiguanqiye*, 代管企业). For fully-owned firms, the head office has 100 percent ownership and captures the full revenue. On the other hand, managed firms were originally either independent or transferred from a different ministry by the Municipal government to the group for management. However, administrative decisions like loans, investment, and personnel go through the head office. In other words, the control of managed firms usually lies with the supply firm itself or perhaps the ministry or bureau to which the firm originally belonged, instead of the head office of the group. As such, the head office only has administrative ties (*xingzhengguanxi*, 行政关系) and received minimal revenue from the managed firms. This begs the question of why the auto group merged various firms and developed administrative ties while weakening the coherence of the group.

The restructuring accomplishes multiple goals.¹²⁸ First, the Chinese government was obsessed with the idea of consolidating the extremely fragmented auto industry and nurturing a few big auto companies in the 1980s through “national team projects.” Enhancing the scale of economy is an effective way to catch the attention and support of the government.¹²⁹ Increasing size is highly correlated with power and dominance, allowing the increase in size to indicate that the national team has become more powerful, maintaining consistency with the original objective given by Jiang Zemin that the state owned sector, remains in a ‘dominant position in major industries.’ The issue is that it is unclear whether the growth of size has been achieved by organic growth or by mergers and acquisitions. If the increase in size is being achieved by simply transferring many other SOEs into enterprise groups over the period, then the growth could be considered less impressive than if it were achieved organically. And, Beijing is the prototype of such case, which produces a different outcome than the expected logic of increased scale

¹²⁷ Eric Thun, *Changing Lanes in China: Foreign Direct Investment, Local Government, and Auto Sector Development* (New York, NY: Cambridge University Press, 2006).

¹²⁸ Zheng Zhao, Jaideep Anand, and Will Mitchell, “A Dual Networks Perspective on Inter-Organizational Transfer of R&D Capabilities: International Joint Ventures in the Chinese Automotive Industry,” *Journal of Management Studies*, Vol. 42, no. 1 (2005): 1-34.

¹²⁹ Many small assemblers and component suppliers are highly inefficient. There were 119 automotive assemblers and 1628 automotive component suppliers in China in 1998. Individually, few of them are capable of surviving foreign competition. Joining a *qiyejituan* can increase the odds of survival by enhancing economies of scale.

leading to higher profitability. In addition, a *qiyejituan* can provide an internal market for its members, increasing bargaining powers and providing an open field in which technical and managerial knowledge can diffuse from initial learners to other members of the group.

In reality, such propositions just remain as nothing more than nominal. BAIC continued to expand its scales and incorporate more companies under its head office from 1970s and on. However, it could not exert unified control and coordination over managed companies, because managed firms were already enmeshed in a web of governmental and inter-firm relationships. To illustrate, in the 1950s, the Beijing Internal Combustion Engine Factory began manufacturing engines with imported technology from the Soviet Union, under the direction of the Ministry of Agriculture, and its product line was tied in with suppliers and end-users within this ministry. In the 1970s, it was transferred to the Ministry of Machinery Industry and then in the 1980s to BAIC. Despite administrative changes, the engine factory remained largely independent because its product line was primarily involved with firms outside the BAIC group. When Beijing internal combustion began profiting from high auto industry demands in the late 1980s, it did not want profits and investment to be channeled through BAIC.¹³⁰

In other cases, the head office did not have enough knowledge and expertise to provide final say to such companies. The most representative example is Foton Auto Company, the largest light duty truck maker in China and second largest in the world. Before joining BAIC in 1994, Foton (then Shandong Zhucheng Motor Vehicle Plant) was a collectively owned enterprise (*jitisuyouzhiquye*, 集体所有制企业) in Zhucheng city, Shandong Province—500 km away from Beijing. Located in one of the most important agricultural output provinces in China, the plant excelled in producing agriculture trucks and light duty trucks. The then president of Shandong Zhucheng Motor Vehicle, Mr. Wang Jinyu decided to donate most of Foton's share (the registered capital of 57.6 million RMB) to the Beijing Motorcycle Company under BAIC in exchange for resources and support from the Central and Beijing government. Until then, Foton and BAIC did not have any close ties.¹³¹ BAIC also welcomed the transfer of Shandong Zhucheng Motor Vehicle Plant as it had a strong manufacturing capacity and supplier bases. Foton would have not been able to gain such a huge market penetration if it remained as a small local enterprise in Shandong Province. However, the transfer of ownership and management does not mean the actual transfer of capability of Foton to other member groups in BAIC nor centralized control over Foton on BAIC's side. The transfer did not contribute much to the development of suppliers within BAIC, because most of the capable suppliers are located in Shandong province. Moreover, the independent history along with its own specialty and expertise in auto production gives BAIC difficulty in controlling the management of Foton. Even now, the BAIC's head office has a difficult time incorporating the management of Foton.¹³²

¹³⁰ Thun, *Changing Lanes*.

¹³¹ Interview with a former manager at BAIC-Foton (June 21, 2009).

¹³² The president of BAIC, Xu Heyi always engaged to integrate BAIC into a inner close connected enterprise. But until present, it is also very hard to involve into management of Foton by headquarter of BAIC.

In addition to the lack of capacity to control the managed firms, the head office did not have the financial incentive to invest in their development, because it could not capture the revenue of the managed firms. Rather than receiving a fixed percent of the profits of supply firms within the group, in many cases, the head office received only a nominal management fee (an annual management fee of 3-4 percent of profits to the head office).¹³³ If the head office of the group had no assurances that it would be able to capture the rewards that would result from investment, it had little incentive to allow them to accumulate profit and to invest in supplier development. As such, most of the transfer of managed firms was implemented for political rather than economic purposes. Overall, the loose ownership ties between firms within the auto groups and independent histories of in-group firms makes unifying control and coordination difficult, consequent providing disincentive to invest. As a result, the head office only invested in the development of supply firms that were fully owned by the group because it was from these firms that it collected profits. For the managed firms, the head offices had neither the capacity nor the incentive to invest in those suppliers' development.

This fragmented micro-level governance provided few incentives for the head office to invest fully in the development of local supply firms. The Municipal government for political purposes would not let the BAIC completely abandon local firms. The Beijing government did very little to promote the development of the local auto sector. How then would the introduction of foreign global automakers change the dynamics of local supplier network development?

Introduction of FDI and the First JV of Beijing Jeep Corporation

For the first time in China, BAIC formed a JV with American Motors Company (AMC) in 1983 to produce Jeep Cherokee sport utility vehicles—Beijing Jeep Corporation (BJC).¹³⁴ However, the lack of local supplier development and disagreement about the localization served as the major source of problem in BJC operation, rendering the JV as “a symbol of conflicting interests, hidden charges, miscommunication and unattained goal.”¹³⁵

Originally, in the 1980s, China followed a similar “go-it-alone” strategy to Korea’s with regard to FDI in auto industry; however, the strategy failed to consolidate the auto industry and rather contributed to rampant growth of uncompetitive auto parts makers suffering from diseconomy of scales. Accordingly, the automotive industry became extremely fragmented with 130 automakers and 2,000 to 3,000 parts manufacturers in the late 1980s. Starting in the mid-1980s, reform-minded leaders like Zhao Ziyang and Zhu Rongji welcomed global automotive companies in the form of JV as an instrument to solidify the biggest SOEs’ market positions and to weed out smaller firms through technology transfer to SOEs and supplier development within the SOE

¹³³ Thun, *Changing Lanes*.

¹³⁴ In 1983 BJC signed a 20-year contract and owned registered capital of 51.03 million RMB that 68.65% were held by BAIC and 31.35% by American Motor Company.

¹³⁵ Gregory Noble, John Ravenhill, and Richard F. Doner, “Executioner or Disciplinarian: WTO Accession and the Chinese Auto Industry,” *Business and Politics*, Vol. 7, no. 2 (2005) 5. Thun, *Changing Lanes*.

group.¹³⁶ Such invitation to FDI in the form of JV with the Chinese auto SOEs in passenger car assembly differentiates the developmental path of Chinese auto industry from that of Japan and Korea.

In order to guarantee the benefits of FDI's presence, the Chinese Central government devised the policy of local content requirement whereby the JV has to meet the localization content rate of 40 percent by the first year of production, 60 percent by second year and 80 percent by the third year. It also strictly regulated JVs so that their local content adhered to a schedule, with severe penalties imposed in cases of breach. This was one of the most conflicting issues between BAIC and AMC partly because as the first JV in China they did not have any precedents to follow. In the beginning of the JV, there were few pre-existing high-quality Chinese local suppliers the JV assembly plants that could rely upon in Beijing. In addition, the lack of precedent JVs to follow in meeting the local content regulation aggravated the misunderstanding and mismanagement of the clause. The drive for quick localization and utilization of Chinese parts ended up hampering the level of domestic vehicle quality and the health of JV.

The BJC failed to target the mass market for its sports utility vehicles and struggled through the 1990s, producing only 15,000 to 20,000 vehicles. The Beijing city government and the BAIC displayed weak leadership by failing to aggressively promote Jeep sales or adeptly manage BAIC's fragmented organizational structure.¹³⁷ The BAIC instead rigidly pressed AMC to follow local content regulations requiring the use of Chinese parts suppliers. However, Beijing's weak heavy manufacturing industrial base and underdeveloped Chinese parts suppliers created tension within the JV. What makes things worse in the first regime of localization was that both sides were neither capable nor willing to develop the local supplier base. For the American side, the AMC underestimated its Chinese partner by informally changing the requirements of local content regulations without properly executing written contracts. Its primary goal was to import a complete kit containing the parts needed to assemble a vehicle—complete knockdown for domestic sales rather than to help the BAIC build local suppliers.¹³⁸ For the Chinese side, as we have seen, the head office had neither the capacity nor willingness to do so. So, the BJC assembly plants used “multiple sourcing strategies”—having at least two suppliers for each component. The BJC assembly plant awarded the supply firm a one-year open contract to supply 50 percent of the volume of a particular component. The remaining 50 percent was sourced from a Shanghai-based supplier. Some can argue that BJC sourced from two different suppliers to put market price competitive pressure as a way to force down the prices between these suppliers. If either supplier increased its prices or began to have quality problems, it received less

¹³⁶ Yasheng Huang, “Between Two Coordination Failures: Automotive Industrial Policy in China with a Comparison to Korea,” *Review of International Political Economy*, Vol. 9, no. 3 (2002): 538-573.

¹³⁷ Interview with a former manager at BAIC-Foton in Beijing (June 21, 2009). Keun Lee, *Chinese Firms and the State in Transition: Property Rights and Agency Problems in the Reform Era* (Armonk, NY: ME Sharpe Inc., 1991). Thun, *Changing Lanes*.

¹³⁸ For details of BJC, see Eric Harwit, *China's Automobile Industry: Policies, Problems, and Prospects* (Armonk, NY: M.E. Sharpe, 1995), 67-91 or Jim Mann, *Beijing JEEP: A Case Study of Western Business in China* (Boulder, Colorado: Westview Press, 1997).

business.¹³⁹ Thun characterizes this as a “market-governed relations between firms.” However, in reality, for political reasons, it would be very difficult for BAIC to completely abandon a local firm because the Municipal government would not be pleased. Instead, it used multiple sourcing strategies to have an excuse to attain sourcing from other competitive suppliers.

For Beijing suppliers, the situation could not be worse. The Beijing suppliers had a combination of high costs (due to low volumes) and low sales prices. They lost money every year, and had very little ability to alter their fate since the head office of the business group also lacked the capacity and willingness to do so. Therefore, the supply firms suffered from the shortages of both financial and intellectual capital. They lived under short contracts that were subject to frequent changes with very little security and outside assistance.¹⁴⁰ In the longer term, this creates a vicious cycle. The Beijing auto office showed no attempt to forge long-term collaborative relationship with supply firms. There was little interest in promoting learning and development, and the assembly plants essentially forced suppliers to compete against one another. Such cycle severely limited the ability of supply firms to develop technical and manufacturing skills because the assembly plant would switch suppliers rather than help them overcome obstacles to development. Interestingly enough, it was the American side who wanted to correct the practice, while the Chinese side was unwilling to make the shift away from multiple sourcing.¹⁴¹

In the end, the BJC had to pay huge economic and non-economic costs. The ailing JV was also detrimental for BAIC as a whole, and despite the Chinese government’s effort to stimulate the JV, the JV struggled in providing the minimum wage requirements for its employees, and its contributions to the local economy were meager.¹⁴² By the end of the 1990s, it was obvious to both central and Beijing leadership that BAIC was incapable of surviving in the ever increasingly competitive auto market. Despite being China’s mecca of politics and culture, Beijing was unable to match Guangdong and Shanghai in terms of industrial development. The failure was particularly bitter for Beijing’s city leaders since Beijing had several features that were conducive to the growth of future passenger vehicle market—including a topography of plains and plateaus, the highest number of driver’s license holders in China, and a 100 percent increase in GDP during the late 1990s. Beijing also represented a large segment of corporate and government demand for automobiles, accounting for 15 percent of total automotive consumption in China during that period.¹⁴³

¹³⁹ The competing Shanghai supply firms could handle this pressure because it was simultaneously providing 100% of Shanghai Volkswagen’s volumes.

¹⁴⁰ Thun, *Changing Lanes*, 146.

¹⁴¹ Thun, *Changing Lanes*. Harwit, *China’s Automobile Industry*.

¹⁴² The BAIC and the AMC agreed in September 2000 to inject \$226 million and extend its term by 30 years to 2033. See Eric Harwit, “The Impact of WTO Membership on the Automobile Industry in China,” *The China Quarterly*, Vol. 167 (2001): 655-670.

¹⁴³ Korean Institute for Industrial Economics and Trade (2009).

To rejuvenate the anemic BAIC, the Chinese Central government considered merging it with a central government-owned automaker, First Auto Works (FAW).¹⁴⁴ In the face of the threat of mergers, BAIC was desperate to revamp its auto industry and fortunately spotted the desperate foreign partner of Hyundai who was searching for a possible Chinese partner.¹⁴⁵

SECOND LOCALIZATION REGIME (2000-2011): BANDWAGONING WITH HYUNDAI

Immediately prior to the merger, the Beijing leadership desperately sought a different partner to revamp the BAIC and help it obtain a share of the fast-growing passenger car market. However, due to a Chinese government restriction that all foreign automakers were limited to a maximum of two JVs, Beijing found its options for a JV partner limited to Hyundai and Toyota. Hyundai appeared to be the perfect partner for targeting China's booming middle class with its mid-sized sedans (e.g., Hyundai Sonata and Avante XD).

Learning from the first severe failure of BJC, the second localization regime followed a somewhat different developmental path. BHMC's speedy operation and breathtaking market penetration proved the pairing of Hyundai and BAIC as successful (Figure 4.2). The latecomer BHMC outdid most of its competitors, jumping from ranking 11th in 2003 to 2nd in 2005 in terms of unit sales. BHMC manufactured Hyundai's best-selling car, the Sonata, within 64 days of opening the production line and sold 100,000 units within the first 17 months of starting production, a feat that took Shanghai-GM 30 months. Within a year of starting operations, the BHMC contributed to 37 percent of Beijing's industrial growth in 2003, which was in clear contrast to Beijing's previously failed JV with AMC, discussed later in this chapter.¹⁴⁶ In 2003, the Chinese media coined the term "Hyundai Speed" to hail Hyundai's unprecedented pace of auto production and market penetration.¹⁴⁷ This is an outstanding achievement, given BHMC's position as a latecomer in the market with weak brand power and BAIC's relatively minor position among JVs. It is also remarkable considering that the automakers from Europe, the United States, and Japan had already been dominating the Chinese market (Table 4.1).

¹⁴⁴ Interview with a manager in Hyundai's Beijing office (November 28, 2010). Interview with a company spokesman, Hyundai Motor headquarters in Seoul, Korea (December 2, 2010).

¹⁴⁵ Consequently, it was Tianjin Automotive Industry Corporation which instead was merged by FAW, not BAIC.

¹⁴⁶ China Automotive Industry Yearbook (2004). It continuously grew to represent 570 thousand units in sales as well as \$ 6.7 billion sales revenues in 2009. The BHMC has created an estimated 80,000 jobs since its founding up until 2010 (7,350 in BHMC and 70,000 in related parts companies).

¹⁴⁷ Xiyou He, "Interaction between Transnational Corporations and Industry Clusters in China: The Case of Automobile Industry," in Akifumi Kuchiki and Masatsugu Tsuji, *The Formation of Industrial Clusters in Asia and Regional Integration* (2008); "Hyundai Motor Pushing Beijing's Economy." (现代速度拉动北京经济) Beijing Youth Daily (北京青年报), October, 20, 2003

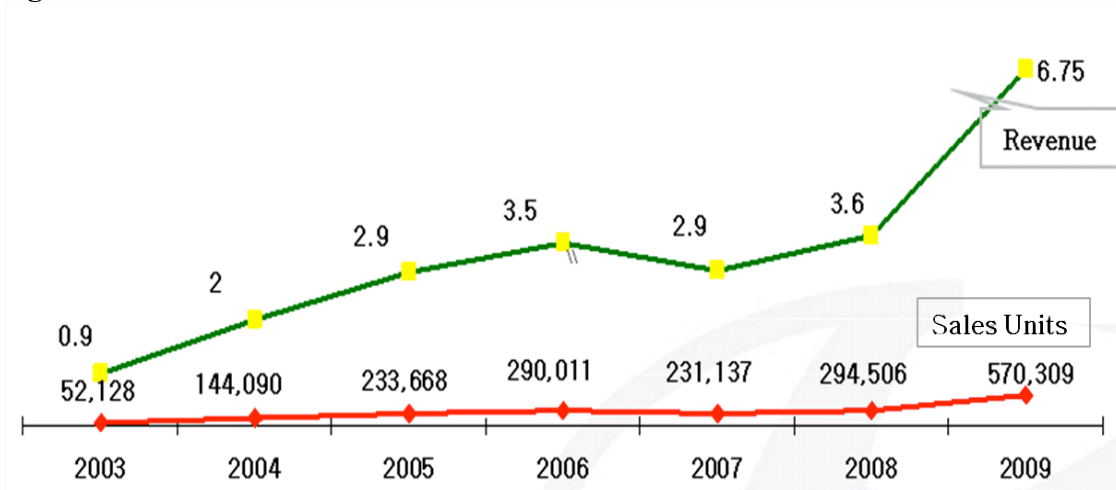
<http://finance.sina.com.cn/roll/20031020/0432480994.shtml>.

Table 4.1: China's Major JV Automotive Assemblers in 2007¹⁴⁸

Start of production	Enterprise	Local Partner	Model
1984	Jeep (American Motor)	Beijing	Cherokee, Grand Cherokee
1985	Volkswagen	Shanghai	Santana, Passat, Polo
1991	Suzuki	Chang'an	Alto, Cultus
1991	Volkswagen	First Auto Works	Jetta, Audi, Bora, Golf
1992	Citroen	Shenlong (Dongfeng)	Citroen ZX, Picasso
1996	Nissan	Dongfeng	Bluebird, Teana
1997	General Motors	Shanghai	Buick, Sail
1998	Honda	Guangzhou	Accord, Fit
1999	Kia	Dongfeng Yueda	Pride, Qianlima
1999	General Motors	Jinbei	GR8
1999	Fiat	Nanjing	Paleo, Siena
2000	Toyota	Tianjin FAW	Corolla, Vios
2001	Ford	Chang'an	Fiesta, Mondeo, Focus
2002	Hyundai	Beijing	Sonata, Elantra
2003	Honda	Dongfeng	CR-V
2004	Benz-DaimlerChrysler	Beijing	Mercedes Benz
2004	Toyota	Guangzhou	Camry
2007	Daimler	Fujian	Mercedes-Benz Viano, Vito, SPV

¹⁴⁸ Compiled by the author from press releases and company websites, and automotive industry yearbooks.

Figure 4.2: BHM’s Market Share and Rank in the Chinese Automotive Market¹⁴⁹



	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sales Units	1,002	52,128	144,090	233,668	290,011	231,137	294,506	570,309	703,008
Growth Rate	---	510%	176%	61%	12%	8%	12%	19%	23%
Revenue(\$ Bil)	---	0.99	2.01	2.90	3.46	2.93	3.61	6.75	8.91
Increase Rate	---	---	102	44	20	-15	23	87	32
Ranking	---	11	5	2	5	8	9	4	4

However, this achievement happened without much development of indigenous suppliers. Learning from the JV failure with AMC, the Beijing government decided to rely on the foreign partner and bandwagon to Hyundai in the second phase of localization by letting Hyundai bring its suppliers to China. Internally, the reform of BAIC had deepened with structural reshaping within the group. Externally, China’s WTO entry in 2001 nullified the forced local content regulation—opening the window of opportunity at the macro and micro levels.

Stories at the Government and Firm Levels: Deepening of Structural Reform

As I introduced earlier, the Central government promoted SOEs as its main vehicle of China’s drive to catch up with the developed countries, instead of privatizing the large and medium SOEs. The effort to transform them into “modern enterprise corporations” deepened through the 1990s and 2000s. The two major steps to SOE corporatization include clear evaluation of the state-owned assets as well as complete separation of SOEs from the supervision of the government bureaucracy.

Three major changes deserve our attention in the state-owned asset management system. At the first tier, new government agencies were created at the provincial level to represent the state’s property rights in jurisdictions, such as the Beijing State-owned Asset Management Commission (BJ-SASAC, *Beijing guoyouzichanguanli*

¹⁴⁹ Hyundai’s internal document released July 2011.

weiyuanhui).¹⁵⁰ At the second tier, SASAC established various types of state holding corporations (*guoyoukonggu gongsi*) to 1) separate SOE management from the state's bureaucracy, 2) establish what the Chinese term a *rengenhua* (personalized) system to take responsibility for the protection and growth of state-owned assets, and 3) function like institutional investors to maximize the state's return on its assets. State holding corporations have the status of an independent legal entity, though by definition they are solely owned by the state. The third tier of the state-owned asset management system is the operational tier—SOEs that have been converted into limited liability corporations. State holding corporations or their subsidiaries own these limited liability corporations in full or in part.

Following such reform measures, the Beijing Municipal government integrated the previously fragmented regulatory authority into two comprehensive commissions: Beijing Development and Reform Commission (BJ-DRC) and Beijing Municipal State-Owned Assets Supervision and Administration Commission (BJ-SASAC). BAIC was also restructured as BAIC (Beijing Automotive Industry Holding Company) in 2001. The Beijing Municipal government owns the whole asset share. Beijing SASAC plays the role of the owner on behalf of the Beijing city, and supervises the asset management and business operations of the Group and its affiliates. BJ-SASAC also appoints, evaluates, and removes top executives of BAIC. Beijing DRC retains huge control over local auto manufacturers by regulating sources of funding for land and infrastructure building, taxes, and human resources. BAIC is indirectly checked by Beijing city officials who are concurrently working for the central party-state. However, the fragmented structure still continued because of the path dependency. This disputes the “market preserving federalism” argument that you will see convergence in sub-national policies as the regional government will learn from successful government practices to “keep up with Joneses.”¹⁵¹ Their market success was rather due to the eliminated local content requirements with the WTO accession.

¹⁵⁰ However, in many cases they have not made much progress in the exercise of ownership functions on the state's behalf. Rather, they have coordinated and implemented reforms to the state-owned asset management system by establishing various types of state holding corporations.

¹⁵¹ Eric Thun, “Keeping up with the Joneses’: Decentralization, policy imitation, and industrial development in China,” *World Development*, Vol. 32 no. 8 (2004): 1289–1308.

Table 4.2: Beijing Municipal Government and the Auto Sector as of 2009¹⁵²

Government Organization	
Name	Beijing Auto Industry Task Force Team (北京汽车工业领导小组)
Chair	Beijing Municipal Mayer
Established year	Beijing Municipal Standing Vice Mayer
Employee	Beijing Municipal Vice Mayer
Firm Organization	
Name	Beijing Auto Industry Holding Corporations
Ownership	Beijing Municipal Government
Established year	1950
Employee	48,000 (2009)
Chairman of Board	Mr. Xiu Heyi
General Manager	Mr. Wang DaZong
Vehicle manufacturer	Beiqi Foton Motor Co., Ltd., Beijing Hyundai Motor Co., Ltd., Beijing Benz - Daimler Chrysler Automotive Co., Ltd. Beijing Automobile Works Co., Ltd
Parts manufacturing	Beijing Hainachuan Automotive Parts Co., Ltd.
Auto trade service	Beijing Penglong Auto Trade Service Co., Ltd.
Research Institute	Beijing Automobile Research Institute Co., Ltd.
Asset Management	Beijing Automobile Assets Management Co., Ltd.
Investment company	Beijing Automotive Investment Company
Technical school	Beijing Automotive Industry Advanced technical school

The timing of Beijing's invitation could not have been more serendipitous for Hyundai, because the company was looking to enter the Chinese market as part of its global strategy. Despite the geographic proximity between Korea and China as well as China's market potential, Hyundai had delayed its entry because of China's protected market environment, strict regulations on foreign partners, and the weak management of most existing Chinese enterprises. Toyota's failed bid with the Shanghai Automotive Industry Corporation (SAIC) in the mid-1990s and Peugeot's failure with the Guangzhou Automotive Industry Corporation in 1997 served as further deterrents. Somewhat dubious of its chances in China in light of these many obstacles, Hyundai instead elected to expand in other emerging markets like Turkey (1993) and India (1996), with ambitions of becoming the world's fifth-largest automaker by 2010.¹⁵³

Though temporarily routing its capital elsewhere, Hyundai maintained its interest in China and signed a \$6 million contract in September 1994 with the Wuhan Wantong Automotive Company to launch a knockdown assembly factory for mini-bus production. However, China's numerous trade barriers on automotive imports limited Hyundai's exports to China to less than 10,000 automobiles per year.¹⁵⁴ To buttress its China

¹⁵² Hyundai's internal document gained through interview with a researcher at Korea Automotive Research Institute in Korea (December 7, 2009).

¹⁵³ Interview with a researcher at Korea Automotive Research Institute in Seoul, Korea (December 12, 2010).

¹⁵⁴ Interview with a manager in Hyundai's Beijing office (June 27, 2009).

operation, Hyundai sought a politically strong and adequately capitalized partner like BAIC that could 1) mitigate concerns about unpredictability of the Chinese market; 2) offer strong bargaining power vis-à-vis the Central government; and 3) help overcome the disadvantages of late entry into the market.¹⁵⁵ Fortunately, Hyundai identified BAIC who was desperate to revamp the ailing JV with AMC.

BAIC's prior failure with AMC ultimately worked to Hyundai's advantage. The previous experience motivated both the central and municipal governments to revamp the ailing auto industry in Beijing by proactively offsetting BHMC's disadvantages of being a latecomer (Figure 4.3). The role of the Chinese partners is particularly significant during the earlier phase of automotive JVs, especially because the foreign side possessed little control over selecting a partner and thus, had to embed itself into a given regional inertia. The Chinese partner is entrusted to help offset the unpredictability of the Chinese market and together establish a stable brand image as well as a target audience for domestic consumption.

First, the Central government tolerated the Beijing government's proactive measures to realize the JV with Hyundai. Usually, the Beijing government's ability for policy reform at the implementation level is limited on account of its proximity to the Central government. Little separation had existed between national and municipal interests, thereby limiting the Beijing government's power. The Central government exercised significant control over the Beijing government with close oversight on personnel decisions.¹⁵⁶ With the BHMC, the Central government opted to revamp Beijing's ailing automotive industry by cancelling BAIC's merger with FAW and participating in all stages of Beijing's partnership with Hyundai, from initial negotiations throughout the final approval stage. In April 2001, Vice Premier of State Council, Wu Bangguo, organized a meeting in Beijing between Jung Monggu, Hyundai's president, and Jia Qinglin, Secretary of the Communist Party of China Beijing Municipal Committee and a member of the Political Bureau of the Central Committee.¹⁵⁷ Their prompt negotiation to establish a thirty-year contract JV was astonishing compared to SAIC-Volkswagen's four years of preparatory meetings.¹⁵⁸ The building of Hyundai's factory and start-up of operations followed at a similarly unprecedented speed.

Following the Central government's initiative, the Beijing Municipal leadership endeavored to expedite the actualization of the JV (Table 4.4). In May 2002, the Beijing Party Secretary directed the Hyundai Project Task Force Team

¹⁵⁵ Choosing Beijing as JV partner also enabled Hyundai to avoid overlapping of markets with its other brand in Wuhan—Kia. Kia Motor set up a 50:50 JV with the Yueda group in 1997. After Hyundai Motor's acquisition of Kia Motor, Hyundai acquired 20 % share of Yueda Kia in September 2000. In March 2002, Hyundai, Kia, Dongfeng and the Yueda group agreed to set up a new JV—Dongfeng Yueda Kia Motor with 50% share on Kia and 25% each for Yueda and Dongfeng.

¹⁵⁶ The central government appointed the Beijing Mayor and Party Secretary who then appointed Beijing's State-owned Assets Supervision and Administration Commission. Beijing's State-owned Assets Supervision and Administration Commission retained the personnel control over BAIC by appointing the president, top executives and senior managers.

¹⁵⁷ Interview with a former manager at Hyundai's Beijing office and current manager at Korean office in Korea (December 14, 2009).

¹⁵⁸ Interview with a manager at German supplier company in Shanghai (September 14, 2009).

(*qichegongyelingdaoxiaozu*, 汽车工业领导小组) chaired by Beijing Mayor Liu Qi to expedite administrative procedures and grant the requisite approval for BHMC to commence operations.¹⁵⁹ Second, Beijing's Development and Reform Commission provided extensive support for land purchases, infrastructure development, and personnel hiring. Hyundai purchased the Beijing Qingxing Light Truck Automobile Factory in Shunyi—1,800 thousand acres of land and infrastructure valued at 160 billion RMB—at a reduced price of 50 billion RMB.¹⁶⁰ Hyundai also received assistance in recruiting China's advanced engineers and skilled technicians.¹⁶¹ Certainly such provision is a common occurrence in local governments—from Changchun in the North to Guangzhou in the South—as each provides preferential treatment towards JVs in their own regions, along with heavy assistance in areas of infrastructure building, financial support, and one-shop administrative approvals. However, the degree to which Beijing assisted Hyundai is notable when juxtaposed to its prior relationship with the AMC. This increased government support enabled the BHMC to begin construction quickly in June 2002 and produce its first model within 65 days (Figure 4.3). The remarkable speed of Hyundai's operation is more apparent when compared it with Toyota's JV experience with Tianjin Automotive Company—an ordeal that lasted more than seven years from initial negotiations to production.¹⁶²

¹⁵⁹ Interview with a chief researcher at Beijing office of Korea Institute for Industrial Economics and Trade (May 20, 2009).

¹⁶⁰ Interview with a manager in Hyundai's Beijing office (June 27, 2009). Interview with a researcher at Korea automotive research Institute in Seoul, Korea (December 7, 2009).

¹⁶¹ Interview with an academic researcher at a university in Beijing (March 31, 2009).

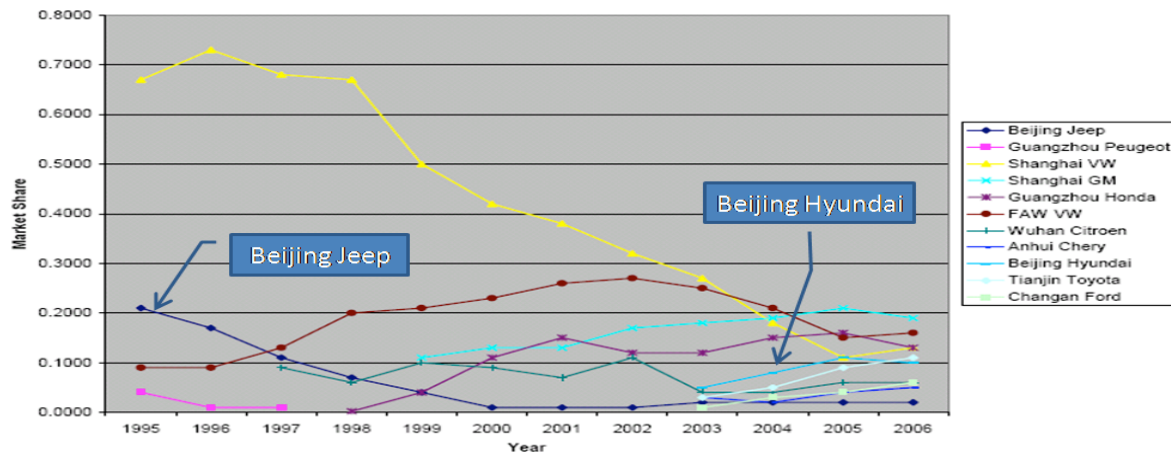
¹⁶² Interview with an executive at Toyota in Guangzhou (May 23, 2010).

Table 4.3: Beijing Hyundai Motor Company¹⁶³

2001	April	Wu Bangguo arranged a meeting between Jia Qinglin and Jung Monggu
2002	May	JV contract was signed
	June	Beijing government set up the task force team with Beijing Mayor Liu Qi as Chair
		BAIC and five shareholders collaboratively set up Beijing Auto Investment
	July	National Economic and Trade Commission requested China International Consulting Corporation to evaluate BHMC project and affirmed the basic outline for BHMC project in principle
	August	Beijing Mayor Liu Qi and Beijing Party Secretariat Jia Qinglin visited BHMC
	September	BHMC received approval from State Development Planning Commission
	October	BHMC established
	December	BHMC started production and sales of Sonata, and started constructing the engine factory
2003	March	BHMC achieved 40% local content for EF Sonata
	December	BHMC produced and sold more than 50,000 cars over the course of 2003
2004	January	BHMC started sales of Elantra (Avante XD: yilante, 伊兰特)
	December	BHMC sold more than 100,000 Elantras over the course of 2004, which was selected as the most ideal car for Chinese family
2005	January	Hyundai adopted as model for Beijing taxi fleet prior to 2008 Olympics
		BHMC completed enhancing production capability for an extra 300,000 cars
2006	March	BHMC introduced Accent (Korean model name Verna)
2007	September	BHMC established the Second Engine Factory
	December	BHMC produced more than 1 million engines
2008	February	Production and sales exceeded 1 million units
	April	BHMC completed its second factory
2010	December	BHMC started the construction of its third factory

¹⁶³ Compiled by the author from various sources.

Figure 4.3: Relative Market Share between Beijing Jeep and Beijing Hyundai¹⁶⁴



Beijing’s Municipal leadership adopted two additional measures to help Hyundai settle in the Chinese market. The first measure involved protectionism—promoting Hyundai’s model for Beijing’s taxi fleet change preceding the 2008 Beijing Olympics. This case demonstrates that China’s entry into the WTO has not prevented sub-national governments from navigating through WTO regulation loopholes to continue local protectionism. The second measure was more of a liberalizing move—allowing Hyundai to transplant its suppliers from Korea to China and abandoning the goal of developing indigenous companies. This was possible due to China’s elimination of local content requirements under the WTO’s Trade-Related Investment Measures (TRIMs).

LOCAL PROTECTIONISM WITH BEIJING’S CHARACTERISTICS: TAXI-CHANGING PLAN

In addition to providing Hyundai with administrative support, the Beijing leadership decided to follow other regional JVs’ pattern of success by using internal protectionism to favor locally produced goods and locally based companies. In the automotive sector, several cases have shown that regional protectionism is conducive to a JV success.¹⁶⁵ SAIC-Volkswagen and Dongfeng-Citroen in Wuhan strongly encouraged local goods and companies. When SAIC-Volkswagen started operations in 1985, the Shanghai government not only purchased much of the output for government use (including taxis and municipal vehicles), but also assessed a surcharge on sales to support a new fund for local parts supplier development.

In a similar fashion, sub-national governments devised various ways to directly and indirectly manipulate consumer purchases and thereby promoted locally based JVs. In the 1990s, the Shanghai government charged a 10,000 RMB (1,500 USD) license fee

¹⁶⁴ Qingjiu Tao, “Competing in China’s Auto Market,” in *Global Business*, ed. Mike Peng (2008).

¹⁶⁵ Harwit, *The China Quarterly*. Huang, *Review of International Political Economy*. Thun, *Changing Lanes*.

for its JV partner Volkswagen's products while charging 80,000 to 100,000 RMB (12,000 USD) for other vehicle models.¹⁶⁶ As a result, Volkswagen seized half of the Chinese market for passenger cars. In 1999, the city of Wuhan in Hubei province granted a special tax relief to residents who purchased locally made Citroen-Fukang models while imposing a surcharge of up to 70,000 RMB (\$8,400) to those who purchased non-Fukang cars.¹⁶⁷ SAIC-Volkswagen models, for example, cost twice as much in Hubei province because of the government-imposed "Relief Fund for Enterprises in Great Difficulty (*tekunqiyejiekunjjin*, 特困企业解困基金)." ¹⁶⁸ Such non-tariff barriers of local protectionism were prevalent in the 1990s.

Under such circumstances, the Beijing Municipal government and the BAIC wanted to follow Shanghai's and Wuhan's success in using internal protection to create favorable market conditions for Hyundai. The Beijing government's commitment to support BHMC was apparent from the very first month of Hyundai Sonata's production in December 2002, when the Beijing government purchased all 2,000 units produced—taxi companies, the Beijing city government, and the police purchasing 600, 500, and 300 units, respectively. Another sign of Beijing's commitment came during the city's taxi fleet change prior to hosting the 2008 Olympic Games. By 2002, the majority of taxis operating in Beijing—including Tianjin Xiali, Citroen Fukang, and Volkswagen Jetta—had reached the end of their six-year life spans. Expecting increased tourism and media coverage, the Municipal government mandated that all 70,000 of the city's taxis be replaced by 2007, with a renewal rate of 20 to 30 percent a year. The announcement spurred major automobile makers to vie for the largest taxi market in China, accounting for 8 percent of the country's 780,000 taxis as of 2002.¹⁶⁹

The Beijing Municipal government recognized the taxi renewal mandate as a propitious opportunity for Hyundai's launch in China. Even before Sonata's debut in the market, Liang Jianwei, the director of the Taxi Management Division under the Beijing Communication Bureau, announced the mid-sized Hyundai Sonata as the government's first choice for its standard taxi model.¹⁷⁰ Such official remarks revealed Beijing's preference for Hyundai models and signaled new competition for domestic automakers. Liang's statement provoked fierce objections and sparked controversy among other automakers. Ultimately, the Taxi Management Division was commissioned to draft a new standard for taxi models that would not restrict vehicle brands. All vehicle makers and models were to have equal opportunity to enter the taxi market so long as they satisfied government standards. However, the government still maintained considerable leeway to manipulate these supposed standards.¹⁷¹

¹⁶⁶ Interview with an academic researcher at a university in Shanghai (May 9, 2009).

¹⁶⁷ Interview with an academic researcher at a university in Shanghai (May 16, 2009).

¹⁶⁸ Dongha Kim, "WTO 가입 이후 중국의 지방보호주의 여전" (Chinese Regional Protectionism in the Post WTO era), *Chindia Journal* (POSCO Research Institute, 2006).

¹⁶⁹ Only in 2001, the fleet hauled 540 million passengers, and sported operating income of 8.17 billion RMB, equal to a fifth of the city government's operating budget.

¹⁷⁰ "Taxi Officials on Song for Hyundai's Sonata," *Beijing This Month*, August 1, 2002

¹⁷¹ The final standards include engine displacement lower than 1.8 liter price no higher than 150,000 RMB, the length of the car no less than 4.5 meter, and a fully equipped GPS system. Cars that meet government standards included BHMC Sonata, FAW Redflag, Audi and Cherry's Eastar, and SAIC-Volkswagen

The 1,500 existing taxi companies in Beijing were free to choose any of the approved models. As a result, major competitors lobbied taxi operators to purchase their models. Chery Automobile—based in Wuhu, Anhui province—arranged holiday tours for Beijing drivers in Wuhu in mid-September 2002 to feature its Eastar model. SAIC-Volkswagen unveiled the new Santana 3000 model at the Beijing Auto Show and heavily promoted its in-car equipment, including an updated global positioning system. Even with these added features, the Santana 3000 was marketed at 30,000 RMB less than the retail price of a Sonata. SAIC-Volkswagen promoted excursions for Beijing taxi companies to visit Shanghai and other cities where Santana 3000 were widely deployed as taxis.¹⁷² Li Hongbao, an official with SAIC-Volkswagen's north China sales and service center, disclosed that some carmakers paid for leaders of Beijing taxi companies to travel to the 2004 Olympic Games in Athens.¹⁷³ However, a number of Beijing taxi firms were not able to “freely” choose what model they wanted because the Municipal government controlled their management licenses. Ongoing internal debates hampered the Beijing government for more than two years following the announcement of the updated taxi standard.¹⁷⁴

Eventually, the Beijing Municipal government and the BAIC abandoned their plans to choose the Sonata to be used as the only model for Beijing taxis. From 2005 to 2007, Beijing adopted Hyundai models for 60.51 percent of its taxi fleet change, which amounted to 34,251 units. Although the use of the Hyundai model for taxis did not directly influence consumer purchases, the increased exposure of Hyundai vehicles affirmed its position in the Chinese market and demonstrated the Beijing leadership's commitment to support BHMC. Other JVs cannot criticize such local protectionist schemes, except through informal lobbying. Executives from other JVs commented that since most JVs have relied on similar strategies, they could not really criticize Beijing's practices.¹⁷⁵

I argue that Beijing's policy of supporting locally produced vehicles demonstrates how sub-national governments selectively apply national regulations at the sub-national level and navigate through possible loopholes in WTO regulations. At the international level, TRIMs and the WTO's non-discrimination principle (Article III:4 of GATT) do not speak directly to control cases where high *intra*-national barriers (rather than *inter*-national barriers) hamper the entry of non-Beijing goods into the Beijing market. Also when China has not signed the WTO's Government Procurement Agreement, it is hard for the WTO to control the local protectionism. At the national level, the Central government turns a blind eye to the implementation of local protectionism against various legal provisions to create integrated national market. The Beijing Municipal government was able to get away with implementing partial local protectionism for Hyundai in its

Santana 3000. The cars that received good appraisal in the Beijing market of FAW' Jetta and already used taxi Fukang were excluded based on such standard. *Economic Daily News*, August 7, 2001.

¹⁷² “Carmakers hail new taxi fleet for Beijing,” *The Standard* (October 7, 2004).

¹⁷³ Interview with academic researcher at a university in Beijing (March 31, 2009). Interview with an academic researcher at a university in Shanghai (September 16, 2009).

¹⁷⁴ Interview with a researcher at a Chinese research center (April 4, 2009).

¹⁷⁵ Interview with executives from two different JVs, one in Tianjin and one in Shanghai (September 14, 2009; June 5th, 2010).

own city. By proactively opening the city's taxi market to the BHMC, Beijing's leadership protected its preferred local firm from competing JVs and manipulated the domestic distribution of vehicles. The promotion of locally made goods is not only in the regional government's interest, but also in the foreign partner's interest. Hyundai had internal debates over using Sonata as a taxi fleet vehicle, worrying about the depreciation of its brand image.¹⁷⁶ Yet it came to an agreement to support the taxi fleet upgrade plan and became one of the major beneficiaries of tacit protectionism and fragmented liberalization in China. China's distinctive pattern of encouraging *intra-national* competition between regional JVs rather than competition between foreign and domestic companies motivates foreign companies to support protectionism rather than advocating further economic liberalization.

MACRO-LEVEL OPPORTUNITY: WTO MEMBERSHIP AND BANDWAGONING TO HYUNDAI'S SUPPLIER NETWORKS

BHMC's supplier network development and sourcing strategy allow us to examine how WTO membership has changed conditions in China, sometimes in unexpected ways—in terms of local content requirements. Based on its experience with BJC, the BAIC painstakingly learned about the drawbacks of strict local content regulations. The drive for quick localization and utilization of Chinese parts has often hampered the level of vehicle quality and the overall health of BJC. Thus BAIC shifted strategies to grant Hyundai greater autonomy to organize local supplier networks. In practice, this meant bypassing indigenous firms that had been the focus of earlier development efforts in favor of suppliers from other regions or from the foreign partner's home country. Utilizing outside resources is more effective than adopting the institutional changes involved in cultivating similar resources at home. The BAIC opted to rely initially on Hyundai's existing Korean-based supplier networks in order to expedite Hyundai's adjustment to China, avoiding the weaknesses in BAIC's fragmented intra-firm structure. The BAIC was able to take this course of action without receiving much political criticism for abandoning the goal of developing indigenous companies, because the WTO's TRIMs and GATT Article XI: 1 allowed for the elimination of local content requirements. The removal of these requirements allows companies to make parts-sourcing strategy decisions based on business-related reasons rather than based on political and legal conditions in China.

¹⁷⁶ Interview with a manager in Hyundai's Beijing office (June 27, 2009). Interview with a researcher at Korea automotive research Institute, Seoul, Korea (December 7, 2009). Interview with a Company spokesman, Hyundai Motor headquarter in Seoul, Korea (December 14, 2009).

NATIONAL ORIGIN OF FDI: THE CHARACTERISTICS OF HYUNDAI

Despite the removal of local content requirements, Hyundai achieved 68 percent localization by the end of 2003, which increased to 96 percent by the end of 2009. It is important to note, however, that this increasing localization reflects the increasing presence of Korean suppliers operating in China rather than parts produced by indigenous Chinese companies. With the given leeway, Hyundai was able to replicate its supplier networks in China by bringing its own parts suppliers from Korea. This not only expedited Hyundai's adjustment to China but also reduced the production cost by achieving parts localization through Korean suppliers in China. Hyundai achieved 75 percent of localization and 25 percent of parts imports by the end of 2004, and 96 percent of localization rate by the end of 2009. Especially, the Hyundai Mobis Automotive Parts Company, Hyundai's most important subsidiary, followed Hyundai's entry into China and contributed greatly to high rate of localization without impairing their qualities. Hyundai Mobis specializes in chassis, cockpit and front-end modules and produces individual components such as brakes, wheels, airbags and electronic equipment. It established factories in Beijing, Shanghai and Jiangsu to supply the BHMC with 100 percent of the Sonata's core parts.¹⁷⁷ Also, Hyundai Mobis has thirty-one second tier suppliers, 95 percent of whom are Korean companies in China and other parts companies including Beijing Mobis Transmission, Beijing Beinei Engine Parts, Beijing Mobis Chonche Automotive Parts, and Beijing Lear Dymos Automotive Systems. Mobis' presence in China not only contributed greatly to the high localization rate without impairing parts quality, but also enabled Hyundai to establish a strong modular operation in order to reduce production cost. This arrangement generated profits within the Hyundai group without ensuring much profit sharing for the BAIC. Given Hyundai's intimate working relationships between assemblers and suppliers in Korea, receiving permission to replicate home supplier networks was a significant factor in the company's ability to expedite its adjustment in China without compromising quality.

Global automakers of varying national origins embed themselves differently into the existing industrial and local structures of given territories. Hyundai proposed a JV with BAIC, and were therefore pledging to become integrated in many ways into the economic and political systems of China and the region. The Korean *Chaebol*, including Hyundai Motor, is known for their hierarchical and close relationships between assembler and suppliers. Hyundai's suppliers typically followed follow-the-flag strategies, entering China with the assembler. Due to macro and micro political economic situations, Hyundai was allowed to fully use its own suppliers instead of developing Chinese ones.

¹⁷⁷ Hyundai Mobis became the biggest component supply subsidiary of Hyundai Motor in place of Mando Machinery Cooperation (with the bankruptcy of the Halla group). In the basis of this new subsidiary-centered component supply system, the production system began to be modularized in 1999. This means delivering the assembled good in modules which enables the common use, large scale production and outsourcing of the components. Modulization propels the two-tier structure of component supply because the component firms disqualified as primary component suppliers can become the secondary component suppliers contracted by the bigger component suppliers.

Sourcing from Mobis also satisfies the political needs in Hyundai Motor’s business operations. The president of Hyundai Motor, Jung Monggu, owns more shares in Mobis than in Hyundai, which strengthens Mobis’ influence on Hyundai’s sourcing decisions.¹⁷⁸ This arrangement is different from the case with General Motors, which has an arms-length relationship with its supplier firms. GM does not restrict its sourcing to Delphi, a GM-spinoff supplier company that is now an independent firm. However, the relationship between Hyundai Motor and Mobis creates an obligation for Hyundai to use its parts-producing subsidiaries instead of focusing on Chinese partners’ in-group suppliers.

Table 4.4: MNC-led Supplier Network Development in Beijing

	IV 1: Relationship to the State	IV 2: Relationship within the SOE	IV 3: Relationship to FDI	Outcome
First regime (1958-2000)	Fragmented	Fragmented	JV with American Motor Company	Forced local content requirements leading to the failure of JV
Second regime (2002-2011)	Fragmented	Fragmented	JV with Hyundai	Huge leeway for the foreign partner

ON A SAME BED YET DIFFERENT DREAMS: INCREASING TENSION OVER SOURCING IN THE SECOND PHASE OF JV OPERATION

The Beijing Municipal government’s use of protectionist measures in its taxi procurement and liberalizing measures in its supplier network development contributed to BHMC’s “success at Hyundai speed” in the Chinese market. Yet such arrangements tilt the balance of power among JV partners in favor of the foreign partner as the JV operation matures. A foreign partner’s increasing power in JV operations is almost inevitable in view of the foreign company’s control over sales, purchasing, technology transfer, production, and quality control. Better management skills, more competitive models, pricing, and creative marketing strategies have become increasingly indispensable in strengthening a JV’s position among the fierce competition of the world’s largest automotive market. Also, China’s operation is part of a global operation for the foreign partner. Global automotive firms reacted not only to Chinese policy, but also to the largest and the most competitive automotive market in the world. By 2002, virtually all of the major global assemblers and first-tier automotive suppliers had established major operations in China. For global strategies, automotive assemblers including Hyundai pursued a “produce-where-you-sell” strategy by relocating production facilities to the market country and widened their product range and line ups in order to

¹⁷⁸ For example, the President of Hyundai Motor, Jung Monggu, owns 7.9% of Hyundai Mobis and 5.2% of Hyundai Motor. And, Hyundai Mobis owns 20.78% of Hyundai Motor.

satisfy a highly fragmented market and differentiated demand. Competitive market forces have pressured global automakers to introduce updated technology and models in China in a timely fashion.

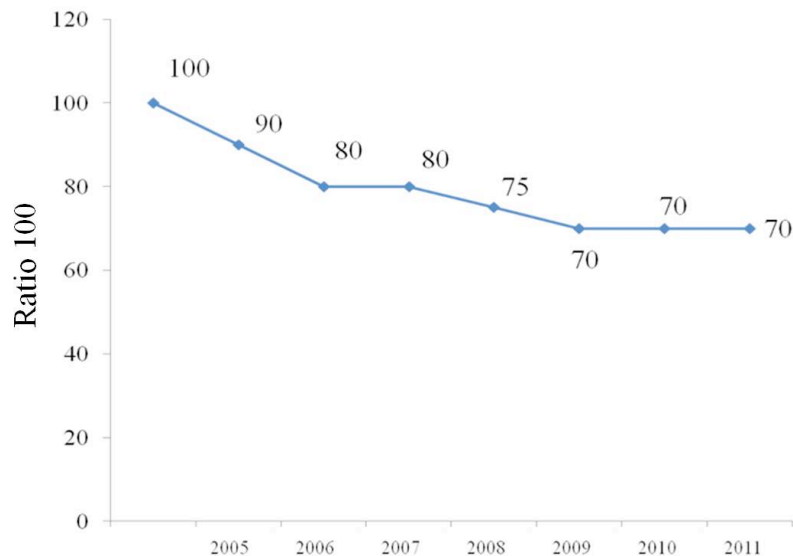
Meanwhile, the Chinese partner in an automobile JV typically contributes less effort towards developing its own products, but fully shares in the benefits of increased market sales. However, the asymmetrical power distribution within the JV has created a sense of crisis for SOEs, as economic forces from above and below squeeze them. From above, the Central government has heavily criticized SOEs for staggering behind foreign competitors and failing to develop national or regional champions of independent models after two decades of government support. From below, private Chinese automakers like BYD and Geely have fared well with their indigenous models.¹⁷⁹ The BAIC lies at the center of attention partly due to its close proximity to the Central government. In response to bureaucratic pressure, the BAIC has strived to develop its independent models and parts companies. This effort has bred increasing tension between the JV partners concerning BHMC's sourcing strategy, as more than 90 percent of parts are supplied by Hyundai's suppliers.¹⁸⁰ Given that 70 percent of a vehicle's total value consist of the cost of parts, the BAIC was concerned that Hyundai would gain a majority of the JV's profit. Annual decreases in vehicle retail prices of 7 to 10 percent heightened the BAIC's apprehension, as it could lose more revenue through this depreciation (Figure 4.4).¹⁸¹

¹⁷⁹ Acknowledging the failure of “exchanging the Chinese market with technology (以市场换技术)” policy, the National Development and Reform Commission in turn enacted the “Policy for the Development of the Automotive Industry” in 2004. The new policy abandoned heavy JV regulation and instead encouraged self-reliant product and local brand development. The approach aimed to launch globally competitive automotive groups that reinforce independent R&D and large-scale production of key components, and nurture local suppliers and their international operations.

¹⁸⁰ Interview with a chief researcher at Samsung Economic Research Institute 15 (May 11, 2009); Interview with a former manager at Hyundai's Beijing office and current manager at Korean office (December 18 2009).

¹⁸¹ In 2007, the leader in the market of Shanghai GM sold 500,000 cars with total sale of seven billion RMB, which is 10% of total sales amount. On the other hand, BHMC reaped only 4% of revenue of one billion RMB with 230,000 sales (*Korean Institute for Industrial Economics and Trade, 2008*).

Figure 4.4: Passenger Car Price Change (2005-2011)



Such tension prompted the leaders of the BAIC and Hyundai to cease major corporate decisions from 2007 to 2008.¹⁸² This blew a brutal hit in their partnership as the 50:50 JV formation requires consensus from both sides for important decisions over management, personnel and investment. The BAIC even established its own parts company called Beijing Hainachuan in August 2007.¹⁸³ The intense internal conflicts reflected directly on BHMC's market performance in 2007 and 2008, when it plummeted from 2nd to 9th in terms of unit sales in China.

BAIC and Hyundai seemed to be partners on the same bed with different dreams. Facing this economic downturn, both JV partners realized the damaging results of arguing over localization and sourcing. In early 2009, both partners acknowledged the integral role each plays in the successful maintenance of JV operations. For the Beijing city government, the BHMC helps propel the economy, especially after the Beijing Capital Iron and Steel Group relocated to another city. Similarly, Hyundai's Chinese operation risks failure without the cooperation of its Chinese partner.¹⁸⁴ As such, even though both sides have "different dreams" about the role of JVs in developing indigenous Chinese suppliers, the JV ownership requirements in the auto operations make them have no other choice but to maintain the partnership in BHMC.

¹⁸² Interview with a company spokesman of Hyundai Motor headquarter in Seoul, Korea (December 2, 2010).

¹⁸³ It is a JV between BAIC (60%) and Beijing Industrial Development Investment Management Company (40%) with a registered capital of one billion RMB.

¹⁸⁴ Interview with a former manager at Hyundai's Beijing office and current manager at Korean office (December 18, 2009).

Table 4.5: Fragmented Liberalization and BHMC

	What has not changed? Local Protectionism and Taxi	What has been changed? Local Content and Suppliers
WTO level	TRIMs' limitations on intra-national barriers and local protectionism	TRIMs' prohibition of local content requirements
	China's delaying in signing Government Procurement Agreement	
Central level	Various legal provisions for anti local protectionism	Elimination of local content requirements upon accession
Sub-national level	Continued local protectionism Non-tariff barriers at the sub-national level	Adopting liberalizing measures to enable Hyundai's supplier transplant
Result	Hyundai model for Beijing taxis	Over 90% local content

CONCLUSION

This chapter examined how Beijing's fragmented institutions hampered the first localization regime with BJC, while it helped the second regime with Hyundai Motor. During the first localization regime, BJC struggled due to the lack of capacity and willingness to develop local suppliers and failing to do so created significant hurdles within the JV. However, such fragmented institutions and laissez faire approach helped the Beijing city government and BAIC to capitalize on the new liberalizing measures of local content removal upon entry into the WTO to enable Hyundai's speedy operation. BHMC's extraordinary rise was possible because the Beijing Municipal government utilized fragmented liberalization—selectively adopting both protectionist and liberalizing measures to favor its local JV with Hyundai. At the micro-level, the failure of the Beijing's previous JV with AMC and the threat of a merger between BHMC and with FAW created sufficient political urgency for Beijing Municipal leaders to guard their own SOE. This urgency prompted the Beijing government and the BAIC to leverage public policy to ensure favorable market conditions to Hyundai. At the macro-level, China's entry into the WTO bestowed new autonomy on the Beijing Municipal government—not only to adopt local protectionist policies in government procurement, but also to provide Hyundai with huge leeway in bringing its own supplier networks into China.

On the local protectionism front, the Beijing Municipal government used its control of taxi companies to create demand for Hyundai cars. It was able to circumvent the Central government's effort to create an integrated market in the automotive sector,

and to navigate through the limits of WTO rules that only control *inter*-national barriers and not *intra*-national barriers. The continued practice of local protectionism demonstrates what has not changed since China's entry into the WTO and what kinds of developmental strategies are available to sub-national governments in a global economy.

In terms of developing local suppliers, the BAIC has relied heavily on Hyundai's supplier network in order to expedite Hyundai's adjustment to China and the revival of the automotive industry in Beijing. Empowered by the WTO rules that prohibit local content requirements, Beijing was able to allow the full transplanting of Hyundai's Korean suppliers without receiving much political criticism for failing to nurture indigenous companies. This strategy coincided well with Hyundai's ability to draw on its existing relationships with suppliers. The unexpected increase in the localization rate of Hyundai's part production in China, despite the removal of local content requirements, proves that WTO membership has affected China, but in a counterintuitive way. The BHMC case study also demonstrates that multinational corporations are not, as many scholars have assumed, necessarily the main drivers of liberalization in China. In fact, foreign partners within sub-national JVs foster *fragmented liberalization* in the country.

CHAPTER FIVE

TIANJIN: PRE-EMPTIVE CLUSTERING IN SUPPLIER NETWORKS

INTRODUCTION

In Tianjin, one of the most historically important heavy industry bases in China, the Municipal government set the auto sector as the most important pillar industry in 1980 at the beginning of reform policy. In order to improve the auto production system and increase its production capacity, the Tianjin Municipal government founded Tianjin Automobile Industry Corporation (TAIC) in 1982 by incorporating the city's five existing auto assembly plants and forty-five parts factories. Despite its proximity to the Central government and the status as the special administrative city, Tianjin was not able to receive as much attention as Beijing Municipal government did. First, Tianjin's auto development plan at the municipal level was often interrupted by the Central government's initiatives of consolidating the auto industry, creating confusion in the authority structure of the automotive industry development. Second, Tianjin was not a part of the JV formation wave in the early 1980s when Beijing, Shanghai and Guangzhou established their first JVs with global automakers from America and Europe. Instead, Tianjin started its cooperation with MNCs in the form of a technology-licensing agreement, which makes Tianjin an interesting case in the Chinese auto development history. Fortunately, this enabled TAIC to establish a relatively solid local supplier base, rendering it as the representative case of an MNC-driven high localization. Then, what factors explain Tianjin's strong supplier base development despite relatively weak support from the central government and late entrants in JV markets?

In November 1986, Tianjin established a technology-licensing agreement with the Japanese small carmaker Daihatsu. They formed a seven-year contract to produce the Charade (Xiali in Chinese). Xiali became very popular in the Chinese market, gaining the status as the number one small car in China from 1990 to 1998. It not only experienced five major upgrades and hundreds of improvements but also had three generations of products, which were all developed with their own independent intellectual property rights. State Administration for Industry and Commerce entitled Xiali as the China Famous Trademark in January 1999.

In expanding the operation, TAIC formed its first JV with the Japanese national champion, Toyota, in 2000 to produce one of Toyota's best-selling models, Corolla. Toyota decided to enter the Chinese market in the mid-1990s when the central government imposed a five-year moratorium on assembly JV deals. Accordingly, Toyota was not able to set up an assembly plant as late as 2000, so it adopted two main strategies to overcome its status as an absolute late entrant to the Chinese market. These two strategies turned out to be the most deciding factors for the local supplier development in Tianjin Area. First, Toyota encouraged most of its suppliers to enter the Chinese market in the 1990s before its entry when the Chinese central government promoted FDI in the parts making sector. Toyota's major suppliers such as Nippon Denso and Aishin Seiki entered the Chinese market and formed virtual assembly plants waiting for Toyota to come in. Such practice is markedly unique in auto companies' FDI because the common

practice is “follow-the-flag” where suppliers follow the assembler to invest in foreign countries. In addition, Toyota also encouraged its suppliers and subsidiaries to pre-clusterize and to set up a virtual supply plant before its actual entry in 2000. This is in stark contrast to Toyota’s original strategy of follow-the-flag strategy in Southeast Asia in the 1960s and in the US in the 1970s. Toyota’s proactive approach not only helped Toyota’s soft landing as a late entrant in the competitive Chinese auto market, but also contributed to the significant industrial upgrading of Chinese local suppliers. Most of the subsidiaries formed JVs with Chinese companies in Tianjin following the Chinese government’s regulation of JVs in key parts and business strategies of gaining local market access and information. This in turn provided a fertile ground for Chinese companies to move up the global value ladders. Second, Toyota bought the major share of Daihatsu as a way to localize their suppliers from the start and to create a foothold in Tianjin. Toyota increased its equity state of Daihatsu from 16.8 percent to 33.4 percent in September 1995, a controlling interest under the Japanese commercial law, and to more than 50 percent in early 1998 to convert it to a legal subsidiary. In the late 1990s, the successful Tianjin Xiali was rapidly losing its market share due to the entrance of other strong competitors like Shanghai GM. However, thanks to TAIC’s earlier technology licensing with Daihatsu, Toyota was provided with the incentives to choose the relatively declining TAIC as its first JV partner in passenger vehicle segment. On account of such strategies, Tianjin Toyota was able to navigate through the Chinese market smoothly.

China’s WTO entry expanded the market entry of foreign companies by lowering tariffs and lifting other restrictive measure, and further facilitated Toyota’s operation in China. However, most of Toyota’s supplier network developed its foundation before China’s WTO entry. Bigger change came with TAIC’s merge with First Auto Works (FAW) in 2002 with the support of the Central government and Toyota. In the late 1990s, China’s impending accession to the WTO prompted preemptive price cuts among Chinese automakers, and Tianjin Xiali was rapidly losing market share due to the entrance of new competitors such as Shanghai GM. Even though Toyota’s first bid with the strongest auto SOE in Shanghai failed, Toyota made the strategic movement of approaching the relatively weak partner yet under the close supervision of the Chinese government of the central government. In the end, the Tianjin Municipal government and TAIC began to look for another company to rescue Tianjin Xiali. In order to revamp the declining TAIC, the central authority suggested TAIC’s merge with the Central government-owned FAW, and Toyota enthusiastically supported the scheme which would strengthen Toyota’s status in the Chinese market and expand the sales network and operation networks of Toyota.

This chapter analyzes the factors explaining Tianjin’s local supplier network development with emphasis on three actors: 1) the Tianjin Municipal government, 2) the government-owned auto group— the TAIC that established in 1982, and 3) the foreign JV partners of Daihatsu and Toyota. The capacity and willingness of involved parties in local supplier development are evaluated based on three independent variables: 1) the macro-level governance of government policy and governing institutions over auto sector in Tianjin, 2) the micro-level governance of intra-firm structures and inter-firm relations

within the auto group, and 3) the way foreign partners embed themselves into Tianjin's institutional and industrial structures.

The discussion of the local supplier development in Tianjin is divided into three sections. First, I discuss the macro and micro level institutional factors of Tianjin's auto sector in the first regime of TAIC's birth and licensing with Daihatsu from 1986 to 2000. The first localization regime starts with Tianjin's licensing agreement with Japanese small carmaker Daihatsu. By importing advanced manufacturing technologies from Japan, TAIC released in 1986 its first Xiali, an independent brand for Tianjin that set the great foundation for developing the industrial upgrading capacity of the local suppliers. This period of development demonstrates how Tianjin was able to overcome its relatively fragmented weak bureaucratic structures thanks to their foreign partner's efforts in creating a pre-clusterization of supplier network. The second section examines the second localization regime since 2000 with the JV with Toyota and the merge by FAW. Tianjin Toyota was able to maintain a good record of localization rate because Toyota bought the majority of Daihatsu's shares in 1998 by increasing the share from 16.8 percent to over 50 percent. This was a measure for Toyota to overcome its status as a late entrant to the market by acquiring Daihatsu's local partners, local market information, and know-hows. For such reasons, Toyota's relatively closed and relational keiretsu network in Japan was not completely exported to China, and opened a wide door for Chinese local suppliers to take part in Toyota's supplier network. Such sourcing strategies stayed relatively intact even after TAIC was merged by the central government-owned First Auto Works in 2002. Toyota's pre-clusterization challenges existing literature in the Chinese studies and inside-out perspective in global network development literature which tend to overemphasize the role of local institutions and local regulations in restricting MNCs. Tianjin Toyota's pre-clusterization proved how some foreign partners have better embedded themselves into the existing industrial structure of a given region and how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness. The last section provides implications of local supplier development and city's industrial capacity building.

FIRST LOCALIZATION REGIME (1986-2000)

Fragmented Institutions Governing the Auto Industry

Historically, Tianjin, considered to be one of the most important heavy industry bases in China had started its auto production as early as 1956 under the directive of Tianjin Automotive Works (TAW). TAW commenced complete car production in the 1960s with other finished car manufacturers and parts suppliers. It established Tianjin Parts and Components Company in 1964. After the Cultural Revolution, a tide of reform also restructured the Tianjin's auto industry. The Tianjin government set the auto industry as the most important pillar industry in 1980 at the wake of the reform policy. In order to improve the auto production system and increase its production capacity, the Tianjin government founded TAIC in 1982 by incorporating the previously scattered five assembly plants and forty-five parts factories in Tianjin. However, the efforts at the

Central authority to create a region-wide initiative complicated the consolidation effort of the Tianjin government. In 1983, the Central government decided to establish consolidated auto business groups and combined three companies of TAIC, Beijing Automobile, and Beijing Second under the Central government-owned Chinese Automobile Company (*Zhongguoqichegongyegongsi*, 中国汽车工业公司).¹⁸⁵ This was the so-called the Jing-Jin-Ji Automobile Consolidated Company (*Jingjinji qichegongye lianyingongsi*, 京津冀汽车工业联营公司). BAIC's chief manager, Zheng Huanming, took the lead to restructure assets, product capacity, and horizontal cooperation. However, due to local government resistance and inter-group competition, the policy failed, leading to the dissolution of the company and the resignation of Mr. Zheng. TAIC was again under the administrative oversight of the Tianjin Municipal government. Between the oscillation of centralization and decentralization, TAIC's head office was not able to consolidate its power and influence over the in-group companies.¹⁸⁶

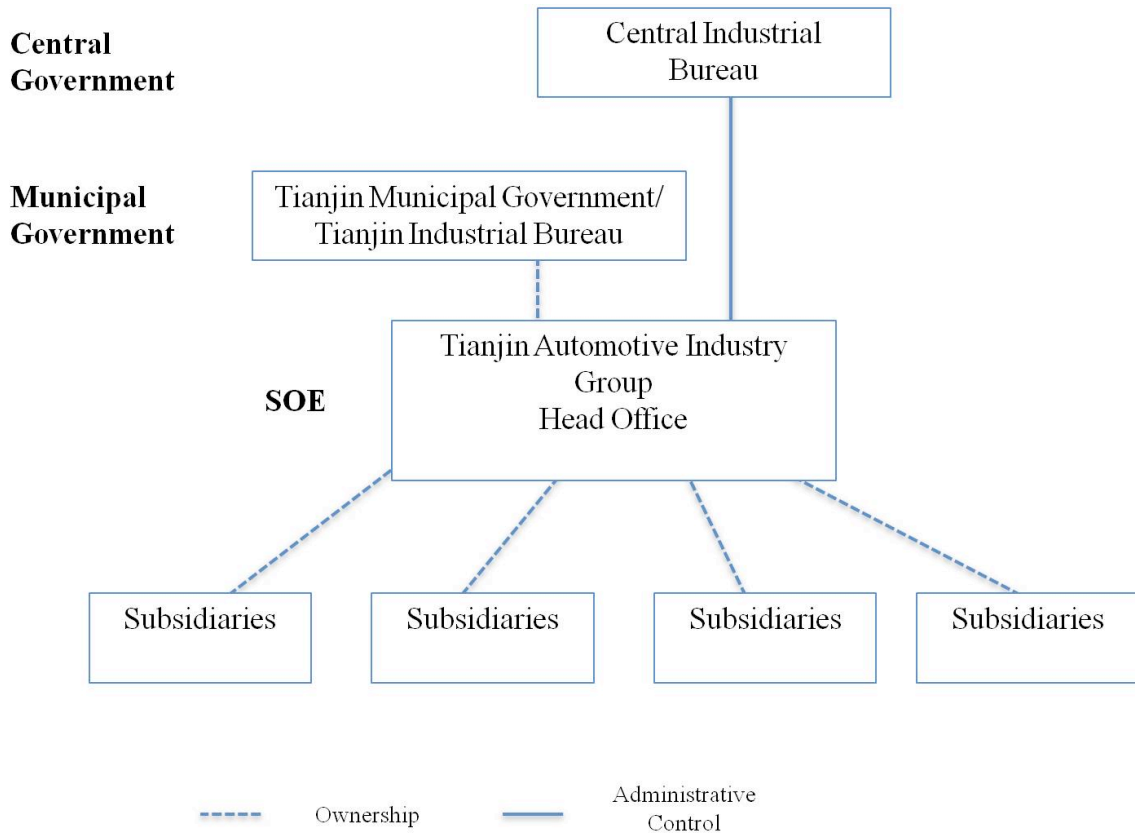
From 1982 to 1996, TAIC was administratively controlled by the Central Industry Bureau at the Central government level, while owned by the Tianjin Municipal government (Figure 5.1). The head office of TAIC was located directly under the Tianjin First Machinery Bureau guided by the Central Industry Bureau. Because the Central government oversaw the development process of Tianjin's automotive, Tianjin developed more structured and coordinated institutions around the auto sector at the local level. Also, most of the supplier firms were owned and administratively guided by TAIC's head office. To be specific, the nature of the relationship between TAIC and its member companies, including assembling factories, parts and components factories, were purely administrative. Indeed, TAIC and its affiliated companies were themselves administrative bodies (known as work units, *danwei*, 单位) under the old planned economy system. With the introduction of the SOE Law and separation between the politics and the management (*Zhengqifenkai*, 政企分开) in 1988, SOEs such as TAIC were in theory separated from the state and became independent legal entities. But in reality, with the state as the sole majority owner, these SOEs only acquired quasi-independent legal status with the fulfillment of state production quotas remaining as their main responsibilities. In the case of TAIC, the Tianjin Municipal government was the nominal owner representing "the whole people", but it still exercised significant influence or indirect control over the production and sales of the company. Managers had to contend with the pervasive influence of local government on their business activities.¹⁸⁷

¹⁸⁵ Interview with a director at the Japan Institute of Tianjin Academy of Social Science in Tianjin (May 14, 2010).

¹⁸⁶ Interview with a manager at TAIC in Tianjin (May 25th, 2010).

¹⁸⁷ Interview with an official at Tianjin Commission of Commerce in Tianjin (June 3, 2010).

Figure 5.1: TAIC’s Administrative and Ownership Structure (1982-1996)

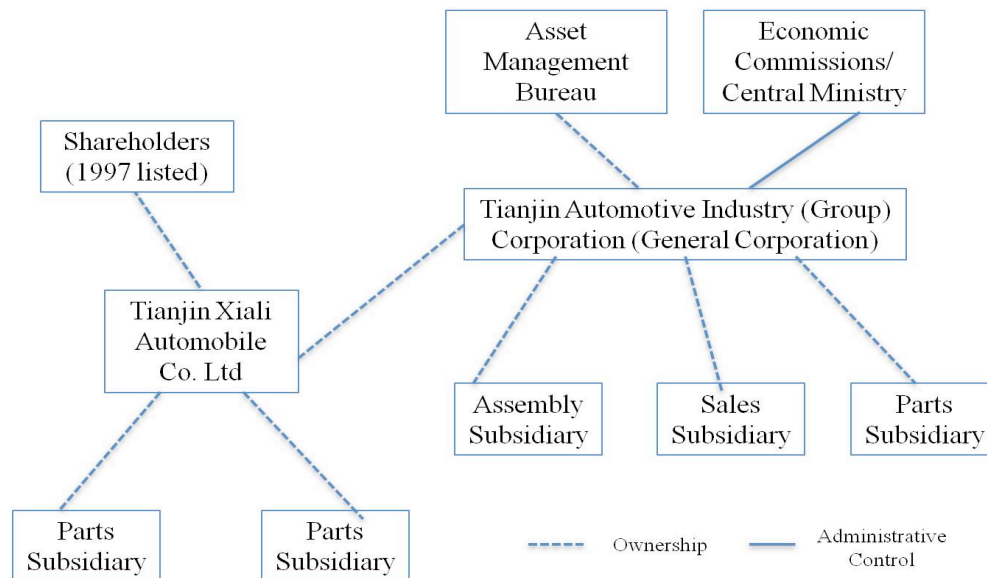


In such a capital intensive industry as the automotive industry, the sector would develop much faster if the government develops mechanisms and institutions to better manage and channel its investment into the sectoral development. The Tianjin government controlled capital, personnel, and management of the auto business group directed by the Central government. The Central Industrial Bureau monitored TAIC’s use of capital and distribution of capital within its subsidiaries. Because of its geographic proximity to the Central government, TAIC closely followed the central government’s directives on investing in the auto sector. This practice dramatically contrasts to the Guangzhou government’s practice since it was geographically far away and had so much leeway in terms of managing capital and sectoral development in its own localities. Despite the Central government’s promotion of developing the auto industry throughout 1980s and 1990s, the Guangzhou SOEs often took a different route. In the late 1980s and early 1990s—the critical time period for the localization drive at Guangzhou Peugeot—the SOE head office was to invest in real estate or trading companies in 1991 and 1992 where the profits were highest instead of manufacturing operations and local supplier

development.¹⁸⁸ On the other hand, the Central Industrial Bureau had firm control over TAIC, and TAIC's head office at least had full control over its subsidiaries.¹⁸⁹

In 1996, following the SOE reform measure, the Tianjin Municipal government granted independence to TAIC with the purpose of transforming the relationship among group members to a truly inter-firm relationship among legally independent firms.¹⁹⁰ However, it was just a nominal change because the embedded hierarchical and administrative ties made it difficult for such change. With the deepening SOE reforms in the late 1990s, the relationship between the Tianjin Municipal government and TAIC as well as between TAIC's member companies was increasingly governed by ownership and less by administrative control, which weakened the administrative ties between TAIC and the government bodies as well as the administrative ties between group member companies. The weakened administrative ties also meant weakened institutional support in areas such as financing. Coupled with the slump in the sales of its main model Xiali in 1999, the group was desperate to change in order to survive in the increasingly competitive passenger car market. Thus, the increasing institutional distance between the state and TAIC, and changes in market conditions induced the group's organizational changes towards managing its supplier relationship. As a result, Tianjin developed hybrid-centralized institutions governing the auto sector, which situated between centralization and decentralization. Because it was close to the central government, but not as important as the Beijing Municipal government, it suffered from different reform initiatives.

Figure 5.2: TAIC's Ownership Structure (1996-2002)



¹⁸⁸ Interview with a staff at the Guangzhou Academy of Social Sciences (April 30, 2010).

¹⁸⁹ Interview with an official at the Tianjin Commission of Commerce (June 3, 2010).

¹⁹⁰ Yue Wang and Akira Tanaka, "From Hierarchy to Hybrid: The Evolving Nature of Inter-firm Governance in China's Automobile Groups," *Journal of Business Research* 64, no.1 (2010): 1-7.

FIRST COOPERATIVE MODE WITH MNCS: LICENSING COOPERATION WITH DAIHATSU IN 1986

In China's automotive industry development history, Tianjin serves as an interesting case where TAIC started its interaction with foreign investors through technology licensing. While Shanghai, Guangzhou, and Beijing participated in China's automotive sector reform by establishing 50:50 JVs with MNCs, Tianjin established a technology-licensing agreement with the Japanese small carmaker, Daihatsu, in November 1986. The seven-year term cooperation introduced its production technology of the newly released Charade (Xiali) model and commenced the immediate integrated production in its Hijet assembly line in 1987. In return for technical assistance and contribute to national brand building, Daihatsu received the right to export more vehicles to China. The small car model, Xiali, was a big success, being ranked second by sales in the small car sector from 1990. By 1992, annual production had reached nearly 30,000 vehicles, with some 40 percent of the parts made in China.¹⁹¹ Xiali had experienced five major upgrades, and hundreds of improvements. It has three generations products, which are all developed with their own independent intellectual property rights. In 1988, the factory was named one of China's "Three Small" manufacturers. The contract also stipulated that Tianjin workers would receive some training in Japan.¹⁹² The State Administration for Industry and Commerce entitled Xiali as the China Famous Trademark in January 1999. The considerable success of this venture had prompted Daihatsu's chairman to comment "there are more Daihatsu's in Tianjin than in [Daihatsu's headquarters city of] Ikeda".¹⁹³ Xiali became nearly ubiquitous on the roads of China as it was the first small car to be produced there. At its peak in the 1990s, the little red Xiali held over 80 percent of the taxi market in Beijing. Its market share throughout the 1990s was the second largest behind Shanghai Volkswagen (Table 5.1).

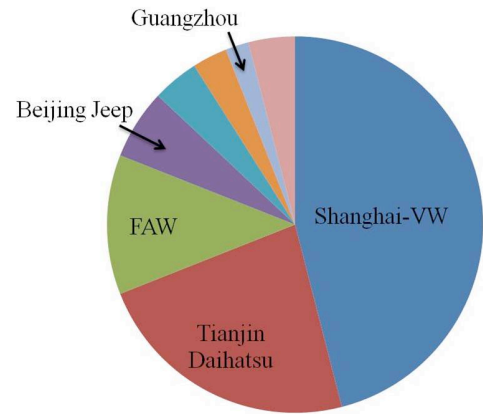
¹⁹¹ Akifumi Kuchiki, *Flowchart Approach to Industrial Cluster Policy from the Point of Sequence Economics*, Working Paper, 2001, 1–31.

¹⁹² Eric Harwit, *China's Automobile Industry: Policies, Problems, and Prospects* (Armonk, NY: M.E. Sharpe, 1995): 40.

¹⁹³ Ahmadjian, Christina and James Lincoln, "Keiretsu, Governance, and Learning: Case Studies in Change from the Japanese Auto Industry," *Organization Science* 12, no. 6 (2007): 691.

Table 5.1: Daihatsu’s Market Share in the 1990s (Units: thousands)¹⁹⁴

	1991	1994	1999
Tianjin Auto (Daihatsu)	11.3	58.5	110.0
Shanghai Volkswagen	33.9	115.3	205.0
FAW (Audi)	7.0	20.0	25.0
FAW-Volkswagen	0.0	10.1	35.0
Beijing Jeep	11.0	13.9	32.0
Dongfeng Citroen	3.0	8.0	20.0

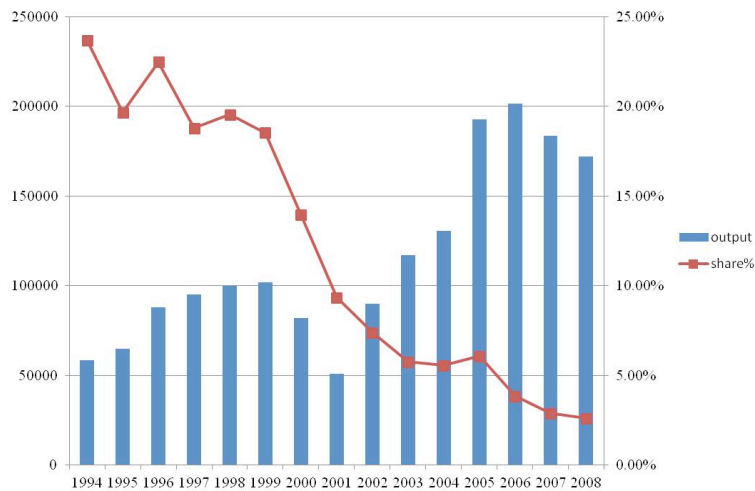


China’s Passenger Car Production in 1994

Production of Tianjin Auto peaked at 158,000 vehicles in 1997, but began to fall as newer auto models began to usurp the increasingly stale Xiali model’s once dominant position. The market share fell from 18 percent in 1999 to below 10 percent in 2001 (Figure 5.3). The company reacted with significant staff cuts of approximately 16 percent each in 1999 and 2000, but the expense cuts failed to keep pace with the company’s decline in revenue. Meanwhile, Xiali took advantage of its relationship with Toyota to pursue talks about forming a JV, and in 1999, the two companies announced plans beginning in 2002 to jointly produce a small car based on Toyota’s Echo Platform—Toyota’s first JV to produce passenger vehicles in China.

¹⁹⁴ “Foreign Development of China’s Motor Vehicle Industry,” *International Journal of Technology Management* 21, no. 5-6/2001 (2004): 496-512. Source for the pie chart is Chinese Automotive Industry Statistical Yearbook 1995.

Figure 5.3: Daihatsu’s Market Share and Output (1994-2008)¹⁹⁵



SECOND LOCALIZATION REGIME: TOYOTA AND PRE-CLUSTERIZATION

The common practice of MNC’s relocation in the automotive industry is “the follow-the-flag” pattern—whereby suppliers later follow the assembler’s entry. Toyota was far from an exception from this common practice with its entry into Southeast Asia in the 1960s and to the US in the 1970s. Even after experiencing significant success with network-based foreign entry into Southeast Asia, many suppliers in the Toyota Group had initially been reluctant to relocate to the competitive North American market in the 1970s.¹⁹⁶ Thus, Toyota had to provide financial support and introduce potential local partners to group suppliers for their JVs in order to encourage them to enter the US to supply Toyota. However, Toyota’s China story reverses such practice: first-tier suppliers have proactively entered China prior to the entry of assemblers and “pre-clusterized”, rather than adopting the ‘follow-the-leader’ strategy.

The explanation requires understanding Toyota’s history in the Chinese auto market. Toyota’s involvement with China began in 1964 with the export of the Crown sedan. In the 1970s, the Japanese initial preference in China was to sell finished vehicles. In the early 1980s, Japan snatched a lion’s share of China’s import market, with Toyota alone selling some 40,000 vehicles to China in 1984.¹⁹⁷ In July 1986, the Chinese government responded to a new wave of foreign cars (many of them smuggled) by issuing a sudden ban on imports, leaving many Japanese exporters in the lurch.¹⁹⁸ Toyota concluded that the rule of law in China could not be trusted, and insisted on selling only autos and refused to sell technology, and make investments. In the 1980s, Toyota was concentrating decisively on boosting its market share in the North American and

¹⁹⁵ Chinese Automotive Statistical Yearbook (1999-2009).

¹⁹⁶ Interview with an executive at Toyota office in Guangzhou (May 3, 2010).

¹⁹⁷ Harwit, *China’s Automobile Industry*.

¹⁹⁸ Gregory Noble, John Ravenhill, and Richard F. Doner, “Executioner or Disciplinarian: WTO Accession and the Chinese Auto Industry,” *Business and Politics*, Vol. 7, no. 2 (2005): 1.

European markets, judging that it was too early to produce passenger cars in China.¹⁹⁹ Despite the approach of Chinese firms for partnership, Toyota refused to invest. Instead, Toyota established mechanic training centers to develop China's automobile and auto parts industries in Shanghai, Beijing, Guangzhou, Shenyang and Tianjin in the 1980s.

Table 5.2: History of Toyota Group in China

Year	Development
Sep. 1972	Toyota invites a China automotive industry delegation to visit Japan
Jun-Aug. 1978	The management of China FAW Group Corporation visits Toyota Motor Corporation in Japan
Jul. 1980	Establishes the first Toyota Authorized Service Station in Beijing
1985	Hino Motors of Toyota Group begins to provide China FAW Group Corporation with technical assistance for the transmission project
Nov. 1985	Toyota Motor (China) Maintenance Technology Training Center is established in Beijing and Guangzhou
1986	Daihatsu Motors of Toyota Group begins to provide Tianjin FAW Xiali Automobile Co. Ltd.
Nov. 1988	Subscribes to a technical assistance contract with Shenyang Jinbei Automotive Co., LTD. (which was terminated in June 1997)
Dec. 1998	Establishes Sichuan Toyota Motor Co., Ltd. (presently Sichuan FAW Toyota Motor Co., Ltd.)
Jun. 2000	Establishes Tianjin Toyota Motor Co., Ltd.
Dec. 2000	The first TOYOTA domestic vehicle, COASTER, rolls off the assembly line
Jul. 2001	Established Toyota Motor (China) Investment Co., Ltd.
Aug. 2002	Reaches an agreement on comprehensive cooperation with China FAW Group Corporation

It was not until 1994 when Toyota officially announced its intention to enter the Chinese market acknowledging China's development and market potential. Initially, Toyota bid to establish JV with the leading automaker of Shanghai Automotive Industry Corporation, but lost the bid to GM in 1995. Some executives of Toyota informed me that the Chinese central government was not cooperative for the bid to penalize Toyota for not cooperating with China when it asked to do so in the early 1970s.²⁰⁰ The Chinese central authorities approached Toyota for entering the Chinese market as a way to develop the Chinese automotive industry, but Toyota refused to do so with the objectives of fully focusing on the North American and European markets. Regional government's

¹⁹⁹ Interview with an executive of Toyota office in Guangzhou (May 3, 2010). Unlike Toyota, Volkswagen put its best efforts into the Chinese market as it was struggling in the European automotive market.

²⁰⁰ Interview with an executive of Toyota office in Guangzhou (May 3, 2010). Harwit (1995) also states in his book that a Shanghai official in 1983 was unhappy with Toyota's reluctance to establish a large-scale project which requires advanced technology and commented, "I told Toyota that after several years have passed, you will not see any Toyotas in Shanghai—only VWs." Harwit, *China's Automobile Industry*, 40.

condition was not favorable for Toyota either. For this second JV, the Shanghai government required the foreign automaker to achieve a higher level of technology cooperation than Volkswagen had established. Toyota felt uncomfortable to deliver and finally gave up on the bid.²⁰¹ Unfortunately, the Chinese government declared a five-year moratorium on the launching of new major assembly JV during the ninth five-year plan from 1996 to 2000. Toyota had to endure its absolute latecomer status. It was May 2000, when Toyota finally obtained the government permission to form JV with Tianjin Auto, and began its production of passenger cars in late 2002.²⁰²

In this context, Toyota and its suppliers confronted an unpredictable situation in the 1990s regarding 1) whether it could establish an assembly plant, and 2) if so, when the core firm's local operations would start. Consequently, Toyota had to bear the status of an absolute late entrant to the Chinese market when it finally obtained the Chinese government's permission to form a JV with TAIC in 2000. These idiosyncratic circumstances helped Tianjin build up strong local parts suppliers in its cooperation with Toyota, a company that was known for having a closed supplier network. First, Toyota merged with Daihatsu as a way to create a foothold in Tianjin and overcome its disadvantage as an absolute latecomer to the Chinese market. Second, Toyota's late entry into the Chinese auto market meant member firms in the Toyota Group had to devise an entry strategy for China that differed from Toyota's strategies in other parts of the world. Toyota's two movements were also designed to convince the central government about the seriousness of Toyota's commitment to Chinese development.

1) Acquiring Daihatsu

In Japan, Daihatsu has been an OEM producer of small autos marketed under Toyota's nameplate as well as a manufacturer of its own brand of small cars and trucks. Toyota made an original equity investment in Daihatsu in 1967 when Daihatsu approached Toyota to save it from bankruptcy. Toyota also dispatched executives to Daihatsu to serve as top managers: six board members including the President and Chairman of Daihatsu are current or former Toyota employees. In September 1995, Toyota increased its equity stake of Daihatsu from 16.8 percent to 33.4 percent, a controlling interest under Japanese commercial law. It then increased its stake in Daihatsu to more than 50 percent in early 1998, converting the company into a legal subsidiary of Toyota.²⁰³ In 1999, Daihatsu announced that it was dropping its leading name models to become a virtual division of Toyota. This acquisition is different from Toyota's past practices because Toyota upped its equity stake in a supplier only for rescuing or restructuring. Indeed, this time was not a rescue package. Toyota acquired Daihatsu because Toyota's minority stake and board representation did not give Toyota the control it desired over Daihatsu. Given the legal and symbolic significance of the 33.4 percent stake, Toyota's *raison d'état* was to gain direct and full control of Daihatsu, as a way to turn Daihatsu's Chinese production bases to produce the Charade Model as its

²⁰¹ Interview with an executive of Toyota office in Tianjin (June 5, 2010).

²⁰² In 1998, Toyota established its first assembly JV in Chengdu, Sichuan province. But it was initially an assembly plant for light buses and off-road cars (Coast and Pado models), not for passenger cars.

²⁰³ Ahmadjian, "Keiretsu, Governance, and Learning".

own.²⁰⁴ This not only gave Toyota effective control of Daihatsu but also unfettered access to Tianjin Motors. The Daihatsu-Tianjin operation offered Toyota a ready-made solution to overcome the late entrant status.

2) *Pre-clusterization*

Auto success depends on the broad networks of suppliers and networks. For production networks, a key issue for keeping up with and surviving the competition is how efficiently member firms can build up their supply clusters in a new environment. A cluster is defined as a geographic concentration of interconnected firms and institutions in a particular sector, while a network refers to interactions between firms rather than geographical proximity. Being part of a cluster has several benefits, such as more productive sourcing inputs and efficient transportation, assets in information sharing, and complementarities with others in a cluster.²⁰⁵ Due to the institutional and economic advantages of clusters, suppliers in the same industry or related industries tend to position their operations in a certain location. Then what happens when they cross nationally and enter into foreign countries?

Entry into a new foreign market challenges the task of how to build or transcend the ongoing inter-firm interactions between the core firm and its suppliers. Thus, cluster building in a new market involves strategic actions taken by both the core firm and the supplier firms in its network. Due to the unstable and underdeveloped business environments of emerging economies, the synergy of the strategies of existing member firms in a given network is crucial to achieving speedy cluster building and making their network-based entry successful. The Japanese inter-firm networks and corporate governance of *keiretsu* have been under extensive academic examination. Keiretsu networks are defined as “institutionalized relationships among firms based on localized networks of dense transactions, a stable framework of exchange, and patterns of periodic collective action.”²⁰⁶ Empirical studies have shown that Japanese suppliers entered foreign markets where their core firm had set up its assembly operation.²⁰⁷ For example, the FDI by Japanese auto-parts suppliers in North America are concentrated near the assembly plants of their OEM.²⁰⁸ Also, they carry Japanese subcontracting practices, characterized as the delegation of administrative authority, development competitions,

²⁰⁴ Internal data from Toyota acquired during an interview with a researcher at Nankai University (May 18, 2010)

²⁰⁵ Michael E. Porter, “Clusters and the New Economics of Competition,” *Harvard Business Review* (1998): 77-90.

²⁰⁶ James R. Lincoln, Michael L. Gerlach and Peggy Takahashi, “Keiretsu Networks in the Japanese Economy: A Dyad Analysis of Intercompany Ties,” *American Sociological Review* 57, no. 5 (1992): 561-585.

²⁰⁷ Kunal Banerji and Rakesh B. Sambharya, “Vertical Keiretsu and International Market Entry: The Case of the Japanese Automobile Ancillary Industry,” *Journal of International Business Studies* 27, no. 1(1996): 89–113.

Rene Belderbos and Leo Sleuwaegen, “Japanese Firms and the Decision to Invest abroad: Business groups, Regional Core Networks and Corporate Development,” *The Review of Economics and Statistics* 78, no. 2 (1996): 214-220.

²⁰⁸ Martin Kenney and Richard L. Florida, *Beyond Mass Production: the Japanese system and its Transfer to the U.S.* (Oxford: Oxford University Press, 1993).

and the maintenance of competition among a small number of cooperative suppliers, and a relatively high level of interaction between buyers and suppliers.

However, China's unique market and regulatory condition subjected Toyota to devise an alternative strategy to its *keiretsu* based networks and follow-the-flag strategies. So Toyota adopted a new strategy called *pre-clusterization*—the process whereby “supplier firms in a business group enter an emerging market and begin to cluster in the location that the core firm targets before the full entry of the core firm.”²⁰⁹ I followed Hatani's three criteria of supplier firms in Toyota group: 1) being an affiliate or subsidiary of Toyota; 2) being a member of Toyota's suppliers association; 3) having an operations base in China.

For Toyota and its suppliers in the Chinese market, clustering prior to the full entry of the core firm was a new and unprecedented challenge. Unlike previous FDI in Southeast Asia and later in the United States, Toyota did not give direct instruction or hands-on support to them for their FDI in China, partly because Toyota itself did not know when the company would obtain approval for passenger-car production from the Chinese authorities. However, the company had a long preparation period for it. First, Toyota had established technical schools, training centers and authorized service stations in China since 1980. Japan has a long connection with China in the automotive sector even though Japan was able to enter the Chinese market as late as 2000. To develop a long-term strategy of developing vital parts suppliers, China formed a study group with Japanese specialists in early 1986,²¹⁰ and the policy bureau of the Central State Science and Technology Commission carried out a major study of the passenger car industry in 1987. In 1995, Toyota established the Toyota Motor Localization Technical Assistant Center in Tianjin. Its mission is to train Chinese companies in the Toyota production system, thereby preparing a base of potential auto component suppliers having the product quality and productivity required by Toyota.²¹¹ Toyota also established an informal supplier management system and a locally based liaison group in China to organize suppliers in a context without tangible production linkages.²¹²

Third, after failing to secure a JV with SAIC, Toyota has been encouraging its affiliated suppliers to invest in China, mainly in Tianjin.²¹³ This led more Toyota suppliers to start transplanting to Tianjin, expecting that Toyota would construct its assembly plant in the vicinity in the near future. Toyota and its affiliated suppliers, in other words, began to pre-cluster near Toyota's ‘virtual assembly plant’, which was an anticipated transplant assembly plant that did not exist at the time of the suppliers' FDI decisions. To be specific, Toyota formed a technical tie-up for various JVs with Tianjin Automotive Xiali in the severe financial distress of 1995 as beachheads. Through such measures, Toyota developed partnerships and built up a substantial local supplier

²⁰⁹ Faith Hatani, “Pre-clusterization in Emerging Markets: the Toyota Group's Entry Process in China,” *Asia Pacific Business Review* 15, no. 3 (2009): 369–387.

²¹⁰ Harwit, *China's Automobile Industry*.

²¹¹ Interview with a manager at TAIC in Tianjin (May 25, 2010).

²¹² Interview with a researcher at Nankai University in Tianjin (May 18th, 2010).

²¹³ Interview with a specialist at Lexus China of Guangzhou Branch in Guangzhou (May 3, 2010).

Interview with an executive at Toyota office in Guangzhou (May 3, 2010).

network, and especially four major in-house auto parts manufacturing plants were established in Tianjin in the form of JV with Chinese partners (Table 5.3). For example, Toyota established Tianjin Fengjin Auto Parts company in 1995 as a JV with TAIC and Tianjin Auto Chassis Parts Manufacturing Company to produce drive shafts, axles, and transmissions.²¹⁴ In 1997, those three actors also formed Tianjin Jinfeng Auto Parts Company to produce steering devices and propeller shafts. In 1998 these activities in Tianjin were extended with the establishment of Toyota-affiliated suppliers.

²¹⁴ Peter J. Buckley and Sierk A. Horn, "Japanese Multinational Enterprises in China: Successful Adaptation of Marketing Strategies," *Long Range Planning* 42, no. 4 (2009): 495-517.

Table 5.3: Selected Toyota's Major Parts Subsidiaries with TAIC ²¹⁵

Name	Year	Ownership Type	Investment Share	Investment Amount (Million \$)	Products
Tianjin Fengjin Auto Parts Company	Dec.1995	JV	Toyota 90% TAIC 5.3% Tianjin Auto Chassis Parts Manufacturing Co. 4.7%	27	Constant speed universal joints, drive shafts, front axles, rear axles, transmission, steering columns
Tianjin FAW Toyota Engine Company	May 1996	JV	Toyota 50% FAW 50%	2400	A-series, SZ-series, and ZZ-series Engines, ZR Engines and Automotive Castings, etc.
Tianjin Toyota Forging Company	Feb. 1997	WOEs	Toyota 100%	29	Constant speed universal joint forging blanks, front axle hubs and crank shaft forging blanks
Tianjin Jinfeng Auto Parts Company	Jul. 1997	JV	Toyota 30% TAIC 25.8% Tianjin Auto Chassis Parts Manufacturing Co. 44.2%	16	Steering devices, drive shafts
Tianjin Motor Technical Center (China) Company	Feb. 1998	WOEs	Toyota 100%	14	Research, development and localized technology consulting services about automobiles and parts
Tianjin FAW Toyota Motor Company	Jun. 2000	JV	Toyota 40% Toyota China 10% Tianjin FAW Xiali automobile Co. 30% FAW 20%	408	Vios, Coroola, Crown, Reiz Corolla EX

Toyota group part makers such as Toyo Kosei, Nippon Denso, and Aisin Seiki acted proactively, entering China even before Toyota's technical tie-up with Tianjin Auto

²¹⁵ Internal document from Tianjin Toyota acquired during an interview with a manager at Toyota office in Tianjin (May 27, 2010).

in 1996. Nippon Denso Corporation, a Toyota group company and one of the world's leading suppliers of automotive technology, systems and components, began its FDI plan for China in the late 1980s. Denso established its first JV for the production of air conditioners and compressors in a coastal city, Yantai, in 1994. When Toyota took an equity share in an auto-parts plant of Tianjin Auto in 1996, Denso quickly redirected its subsequent FDI to the Tianjin area. Another Toyota group company, the automobile parts manufacturer Aisin Seiki, also started an FDI project in China prior to Toyota's official announcement of FDI in China. Aisin Seiki set up a project team for Chinese business in 1993 and established five JVs in China before Toyota's full entry to produce clutch and brake parts for Toyota. Toyo Kosei also established two JVs in Tianjin producing brake hoses and body sealing. Other Japanese affiliated parts makers such as Tokai Rika, Fujitsuten, Stanley, and Yazaki Sougyo have set up their local offices in Tianjin. Yazaki set up a JV in 1988 to manufacture wire harnesses, while Fujitusten produced audio parts since 1995.

Toyota suppliers' initial steps to enter China were supported by favorable incentives offered by Special Economic Zones in China, which provided foreign suppliers with some choices for locations.²¹⁶ However, until Toyota's prospective assembly plant in Tianjin became real, the suppliers that initiated pre-clustering had to endure poor performance based on small economies of scale with limited volumes of orders from other foreign carmakers that had entered China earlier than Toyota. Nevertheless, they regarded their initial FDI in China at this stage as 'scouting' FDI; the main task of which was to study the local business environment and to obtain market information. One characteristic of the Toyota Group is that Toyota's first-tier suppliers organize their own supplier groups under their umbrellas, which are actually subunits of Toyota's supply network. The entry of Toyota's key suppliers motivated the second-tier suppliers in their networks. In other words, the synergy between the core firm's centripetal force and competitive group suppliers realized pre-clusterization while speeding up the whole process of the network-based entry. The idiosyncratic regulatory environment in China seems to have provided a rare opportunity for this well-integrated supply network to develop a new capability for foreign entry.

Thanks to such measures, when Toyota came to an agreement on its assembly plant in 2000, eighteen local units of Toyota suppliers were already in the Tianjin area. In late 2002, there were a total of fifty-six operation units of Toyota's group suppliers in China, thirty-four of them in Tianjin. Since Toyota's passenger-car production in China was finally launched in October 2002, group suppliers have accelerated their FDI in the country. Although the minimum local content requirement in China is 40 percent at the end of the first year, pre-clustered group suppliers enabled Toyota to achieve a local content ratio of well above 60 percent from the outset. Within the supplier network, Toyota sources from local suppliers including forty-eight companies based in Tianjin area (89 percent of the total), three companies located in the Northeast Asia (1 percent), and fifteen companies located around Shanghai (10 percent).²¹⁷ Towards the end of 2002, the conventional follow-up FDI of suppliers led to the number of their operation units

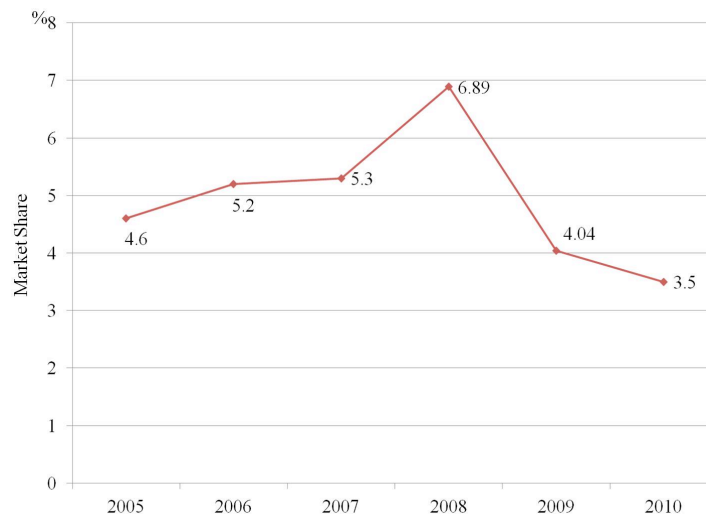
²¹⁶ Interview with an official at Tianjin Economic-Technological Development Area (June 11, 2010).

²¹⁷ Data gathered from an interview with an executive of Toyota office in Guangzhou (May 3, 2010).

surging from thirty-four to fifty in the Tianjin area and from twenty-two to forty-seven in the Shanghai area. These measures narrowed the gap between the quality of parts available in China and Toyota's demands, and enabled Toyota to use the existing procurement base of TAIC.

Besides the developing of supplier network, the Toyota production system has been thoroughly implemented within the Tianjin factory. First, Toyota achieved this goal thanks to a process of sending groups of Chinese employees to Japan for training on how to manage workers in the factory in China.²¹⁸ Every year, Toyota sends about 80 selected Chinese employees at the factory manager level to spend six to nine months in Japan.²¹⁹ Second, a number of employees gained experience working in Toyota's China Technical Center and have been transferred to Tianjin Toyota to serve as section managers and other key staffs. This helped Toyota to maintain the quality of operation and Just-In-Time system in the Chinese factories, even though the Tianjin Municipal government and TAIC were not the strongest partners that Toyota preferred to have as its first JV partnership. In mid 1990s, Toyota wished to be partnered up with the strongest domestic player of Shanghai Automotive Industry Company, yet SAIC's high requirement for technology transfer and other barriers for the partnership disappointed Toyota. However, Toyota's next move to have a JV with a rapidly declining TAIC was a strategically brilliant action because Toyota was not just able to take advantage of Daihatsu's early presence and pre-clusterized networks, but also to gain leverage from a desperate Tianjin government. Moreover, cooperation with TAIC opened a door for Toyota to be linked to the Central government-owned First Auto Works and extended its operation nationwide.

Figure 5.4: Toyota's Market Share²²⁰



²¹⁸ Jonathan Brookfield and Ren-Jye Liu, "Japanese Subcontracting in Mainland China: a Study of Toyota and Shanghai Koito," *Supply Chain Management* 11, no. 2 (2006): 99-103.

²¹⁹ Interview with an executive in Toyota office in Tianjin (May 28, 2010).

²²⁰ Chinese Automotive Statistical Yearbook (2011).

MERGE OF TAIC BY FIRST AUTO WORKS

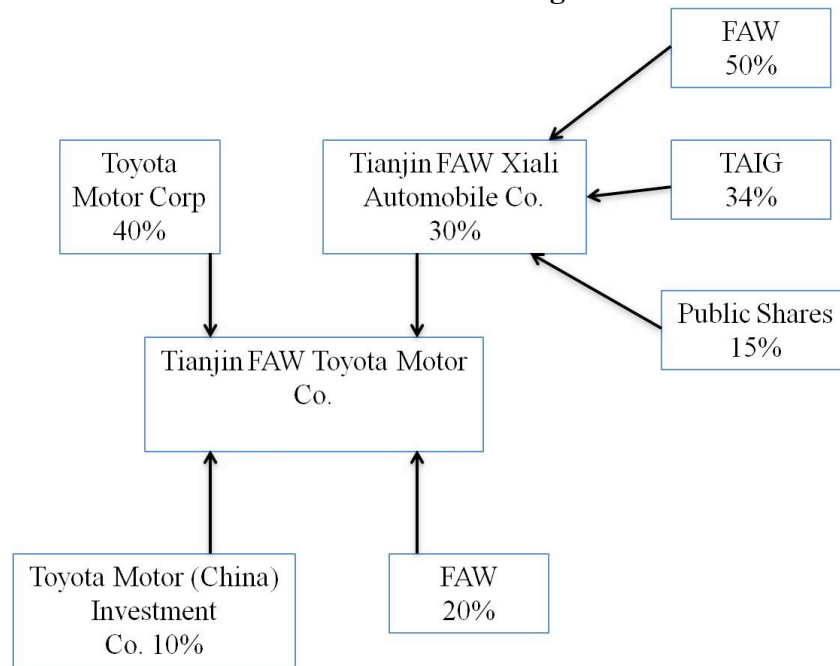
For more than ten years, mergers and acquisitions (M&A) has been a central theme of the global automobile industry, brought on by automakers' need to ensure sustainability and also to contend with inconsistent and excess production capacity. Cooperation in joint product development and production yielded outstanding synergies with substantial cost savings. Suffering long from the fragmented industry, the Chinese Central government rode on the winds of this global phenomenon and encouraged M&A to consolidate the sector and implement structural adjustment. Tianjin was at the forefront of such M&A measure out of necessity. In late 1990s, China's impending accession to the WTO prompted preemptive price cuts among Chinese automakers. In January 2002, Tianjin Xiali cut the prices of its vehicles by as much as 30,000 Yuan (3,600 USD), representing 25 to 80 percent of the price of its cars. It was in this climate that Tianjin Municipal government and TAIC began to look for a rescuer of Tianjin Xiali. Following 2001, sales that were 63 percent below those of its peak in 1997, Xiali began actively to reach out to the larger auto companies in China to discuss possible capital tie-ups or asset restructurings. Rather than dreading the loss of local employment and tax revenue, the Tianjin government was actively looking for a solution. At the time, the Central government was discussing the mergers of relatively weak SOE players by the Central government-owned FAW. Both BAIC and TAIC were considered as the possible merge partners of FAW; BAIC was fortunately given one more opportunity with its first passenger vehicle JV with Hyundai while TAIC was merged by FAW. Toyota strongly supported the merge between the two, which would enable Toyota to gain access to the central government-owned SOE and expand its operation nationwide.²²¹ The Tianjin government was also motivated to seek a merger when poor managerial decisions had brought its local auto company to the brink of insolvency.

In June 2002, FAW acquire controlling stakes in TAIC's two major subsidiaries, gaining 50.98 percent of Shenzhen-listed compact car-maker Tianjin Automotive Xiali, and 75 percent of mini-car maker Tianjin Huali Auto—a leading mini vehicle producer, in which Toyota of Japan owns the remaining 25 percent (Figure 5.5). This allowed FAW to enhance its foundation of product and capability as it prepares for increased competition under WTO rules as well as to gain access to a partnership with Toyota Motor. The new company, FAW Tianjin Xiali Automobile Company, benefits from FAW's financial strength and wide sales network, while FAW increases its inroads into the small car market where the Xiali brand is well known. Four new members from the FAW group, including FAW's general manager Mr. Zhu Yanfeng, replaced five former board members from TAIC. The new board has a total of nine members, including four from FAW Group, four from Tianjin Automobile, and two independent members. With the merger, TAIC laid off 45,000 of the group's 60,000 employees as part of a merger

²²¹ Toyota persuaded FAW to take over the Chinese partner of Chengdu-Toyota so that it could set up another car-assembly JV. At a cost, Toyota allowed FAW to produce its off-road model the Land Cruiser in Changchun.

with FAW. The attitude of First Auto’s management was clear—it only wants the good quality assets of TAIC.

Figure 5.5: Administrative Structure after the Merge with FAW



Such practices partly answer the question of when MNCs enter foreign country, whether they transport their existing assembler and supplier relationships or develop hybrid forms depending on the institutional context of the foreign country. In emerging markets, government institutions play a particularly important role in MNCs’ FDI decisions, because host governments can alter their policies quickly, and when FDI policies in host countries change, MNCs may also need to change their strategies. Tianjin Toyota showed the adaptability of MNCs and their ability to shape the local conditions that they would embed themselves into. Conventionally, Japanese subcontracting is characterized as the delegation of administrative authority, development competitions and the maintenance of competition among a small number of cooperative suppliers, and a relatively high level of interaction between buyers and suppliers. However, due to China’s unique market situations, Japanese-affiliated enterprises in China are moving away from an insular, vertical subcontracting structure dominated by a single assembler. In the new subcontracting system, characteristic features—such as a broad customer base and localization—contrast with earlier features that included a substantial delegation of authority, regulated inter-firm competition, and long-term relations. Tianjin Toyota’s adaptation to the Chinese market not only proved how some foreign partners have better embedded themselves into the existing industrial structure of a given region but also exemplified how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness.

Table 5.4: MNC-led, High Local Supplier Network Development in Tianjin

	IV 1: Relationship to the State	IV 2: Relationship within the SOE	IV 3: Relationship to FDI	Outcome
First regime (1958-1997)	Centralized (yet with Central government intervention)	Centralized	Technology licensing with Daihatsu	Managed local content requirements increased the capacity building of local suppliers
Second regime (1997-2011)	Centralized (yet with Central government intervention)	Centralized	JV with Toyota	Toyota supplier's pre-clusterization

CONCLUSION

This chapter examined how Tianjin's unique partnership with the foreign JV partner enabled it to overcome institutional weakness developed in between of centralization and decentralization by the central government. TAIC's head office had full control over the in-group suppliers, but Tianjin Municipal government's effort to consolidate the industry in Tianjin area was often directed and sometimes delayed by the central efforts to include the Tianjin automotive industry into the greater northeastern area including Beijing. Such administrative complexity was overcome by TAIC's strategies in linking up with FDI during the first localization regime from the mid-1980s. While Shanghai, Guangzhou, and Beijing participated in China's automotive sector reform by establishing 50:50 JVs with MNCs, Tianjin established a technology-licensing agreement with the Japanese small carmaker, Daihatsu, in November 1986. Tianjin's cooperation with Daihatsu also opened the door for a JV with Toyota in 2000. While waiting to enter the Chinese market until 2000 and bearing the status of an absolute late entrant, Toyota devised alternative strategies to prepare itself in Tianjin. It merged with Daihatsu as a way to create a foothold in Tianjin in order to overcome its disadvantage as an absolute latecomer to the Chinese market. Toyota increased its equity state in Daihatsu from 16.8 percent to 33.4 percent in September 1995, establishing a controlling interest under Japanese commercial law. It then increased its stake to more than 50 percent in early 1998, converting Daihatsu into to a legal subsidiary of Toyota. Second, Toyota's late entry into the Chinese auto market meant member firms in the Toyota Group had to devise an entry strategy for China that differed from Toyota's strategies in other parts of the world. Toyota's first-tier suppliers, such as Nippon Denso and Aishin Seiki, entered the Chinese market starting in the early 1990s and formed a virtual supply plant before the core firm fully entered the market. This pre-clusterization strategy contrasts the common practice of "follow-the-leader" FDI investment, in which Toyota's suppliers followed in Southeast Asia in the 1960s and the United States in the 1970s. In other words, the Tianjin Municipal government's licensing cooperation decision with Daihatsu

and its efforts to develop local suppliers aligned well with Toyota's particular situation in China, where the automaker was encouraging its parts suppliers to enter the market before the parent company. This pre-clusterization strategy not only enabled Toyota's soft-landing in the Chinese market but also contributed to the close ties ups between TAIC's subsidiaries and Toyota's affiliates.

In terms of the entry mode, some of the foreign automakers proactively devise alternative China strategies instead of reactively responding to the Chinese regulation. Even though MNC's entry mode is fixed as a JV with Chinese SOEs, Tianjin Toyota's case account for 1) why some foreign partners have better embedded themselves into the existing industrial structure of a given region and 2) how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness. Most of the research takes negotiation leading to the JV cooperation as an analytical starting point; however, MNCs tend to start their informal negotiation or market entry preparation in advance.

The industrial upgrading is heavily driven by the automotive industry as the Tianjin government puts priority in producing cars with advanced technology, in terms of developing clean energy powered vehicles, such as electric, hybrid-electric vehicles and their spare parts. Tianjin Qingyuan Electric Vehicle Research Center is the only research institute in China that is listed in the "863 Program"—State High-Tech Development Plan funded and administered by the central government since 2001 to stimulate the development of advanced technologies.²²²

²²² *Sparkling Points of Tianjin* compiled by Tianjin Municipal Information Office (2008): 13.

CHAPTER SIX

SHANGHAI: CREATING OBLIGATED EMBEDDEDNESS

INTRODUCTION

In the past three decades of modernizing the auto industry sector, Shanghai has established itself as the most successful auto production site. Unlike cities such as Guangzhou, dominated by trading firms and light industry, Shanghai had a history of developing large industrial enterprises. With its early contact with western countries, it not only developed large shipyards, but also established itself as an international textile-manufacturing center. As early as the 1800s, Shanghai was exposed to FDI as well. Such experiences carried well over to a century later when Shanghai developed the auto sector in alliance with global automakers. Starting mid-1980s, Shanghai jump-started its auto industry development with its first cooperation with Volkswagen. Shanghai was selected as one of the first players joining the first tide of forming JVs with global automakers as early as 1984 when Shanghai Automotive Industry Company (SAIC) formed a 50:50 JV with German Volkswagen to produce the Santana model. Yet Shanghai Volkswagen did not initially help the Shanghai government's effort to develop local suppliers. Initially Volkswagen was keen on just importing knockdown kits to China solely for assembly purposes. Consequently, Volkswagen's JV model, the Santana, achieved only a 2.7 percent local content rate by early 1987. The Shanghai government and SAIC realized the reluctance and the lack of incentives for the foreign partner to invest in local supplier network development.

The Shanghai Municipal government dealt with this a fundamental dilemma within the JV by closely following the so-called developmental state model at the local government level, instead of forcing Volkswagen to meet the local content rate regardless of their business strategies. First of all, the Shanghai Municipal government rearranged the institutions governing the auto sector into a more unified and hierarchical institutions to maintain a greater capacity to channel capital and monitor the sectoral development. Second, it ensured SAIC to develop a similarly hierarchical structure so that the head office can maintain information control, discipline over supply firms and development monitoring. Moreover, it pursued various industrial policies to develop its local auto suppliers within the cooperative JV framework including the adoption of "auto component tax" for the localization fund and local protectionism to favor the Shanghai-produced auto models. The Shanghai government not only established a localization office to streamline the development process, but also charged customers an extra 28,000 RMB (4,300 USD) per Santana to fund parts localization. Volkswagen felt greatly pressured by the government to use the fund and assist the local supplier network development. Indeed, it was desperate to succeed in the Chinese market, as a way to compensate its decline in the European market. The Shanghai government's localization initiatives, combined with Volkswagen's desire to succeed in China, enabled Shanghai Volkswagen to increase its local content rate to 92.9 percent by 1997. Shanghai

Volkswagen established itself as the dominant market player throughout the 1990s, capturing about 51 percent of the Chinese passenger car market in 1996.

Shanghai's success with Volkswagen carried over to the city's second automotive JV with GM. Shanghai held the upper hand when foreign automakers entered bids to join the second JV because 1) many global automakers wanted to enter the Chinese market before China's entry into the WTO, and 2) Shanghai had several competitive potential partners who expressed interest including Toyota, GM, and Ford. Such situations allowed the Shanghai municipal government to raise the bar for JV partnership and especially for a higher level of technology cooperation than Volkswagen had established. In 1997, GM signed the contract with SAIC by promising to provide an unprecedented level of technical support. For the first time in the Chinese JV history, GM established the Pan-Asia Technical Automotive Center with SAIC. This center not only contributed to Shanghai's local supplier development, but also placed huge pressure on other global automakers such as Volkswagen to increase their R&D activities in China and provide more up-to-date models. As such, the Shanghai GM case shows how the Shanghai government led the process of localization in the Chinese auto sector and helped its global automaker partners embed themselves into Shanghai's existing industrial structure.

In addition, Shanghai GM is at the forefront of the merger and acquisition (M&A) wave in China, as a way to extend its supplier network throughout the country. For more than ten years, M&A has been a central theme of the global automotive industry, brought on by the automakers' need to ensure sustainability and also to contend with inconsistent and excess production capacity. However, M&A activity is constrained for MNCs, because foreign automakers are limited to two JVs in China. Yet MNCs can extend their networks in China via the help of their Chinese JV partners or their international affiliates. GM's development in China is one such case. Because it is not allowed to establish a new JV in passenger-vehicle production, GM has persuaded its existing Chinese partner, SAIC, to take over other local competitors. In effect, these new JVs are considered to be an extension of GM's partnership with SAIC according to Chinese government regulations. Legally, GM has two JVs in China, but its operation is anchored in eight Chinese cities, enabling the GM group to develop the most extensive network of automotive production in China. Thus, Shanghai GM provides an interesting avenue to examine how strong regional players' takeovers of minor regional players affect local suppliers' industrial upgrading and the cross-regional expansion of suppliers.

This chapter analyzes the factors explaining the local government-led supplier network development with emphasis on three actors: 1) the Shanghai municipal government, 2) SAIC, and 3) the foreign JV partners of Volkswagen and GM. The capacity and willingness of involved parties in local supplier development is evaluated based on three independent variables: 1) the macro-level governance of government policy and governing institutions over auto sector in Shanghai, 2) the micro-level governance of intra-firm structures and inter-firm relations within the auto group, and 3) the way foreign partners embed itself to Shanghai's institutional and industrial structures.

The discussion of the local supplier development in Shanghai is divided into three sections. First, I discuss the macro and micro-level institutional factors of Shanghai auto sector in the first localization regime from 1958 to 1997. It will mostly focus on SAIC's

first JV with Volkswagen from 1985. The first localization regime provides an overview of how the Shanghai municipal government and SAIC proactively helped Volkswagen to increase the local content rate with industrial policies at the local level. The second section examines the second localization regime—SAIC's second JV with GM, now the top market player in the largest auto market in the world. It will detail SAIC's partnership with GM and GM's great contribution to raise the standards for technology cooperation with a Chinese partner, and therefore the industrial capacity building of the region. It will also detail how Shanghai GM demonstrates the effectiveness of M&A as a way to expand operation cross-regionally. In so doing, I demonstrate how Shanghai's automotive industry development represents the glocalization mode of obligated embeddedness. The Shanghai municipal government played a role as a local development state. It not only had a coherent motivation of nurturing local suppliers but also had a capacity to channel the capital through its SOE head office and subsidiaries through unified bureaucratic structures. The last section provides implications of local supplier development and city's industrial capacity building. In 2010, GM asked SAIC to set up a JV and share the development cost in India to compensate its lack of capital power. The obligated embeddedness mode of glocalization provides another venue for Chinese SOEs to extend in other emerging markets.

THE FIRST LOCALIZATION REGIME (1986-1997)

Since the beginning of the Open Door Policy, the Shanghai Municipal government expressed its willingness to turn the automotive industry into one of its main pillar industries in the region.²²³ The actual efforts began with its first JV with Volkswagen. Volkswagen entered the Chinese market in 1984 as one of the earlier entrants with the intent of reviving its declining auto sales in the European market. According to the central authority's planning, Volkswagen was paired up with SAIC as 50:50 JV. The Chinese partners were composed of SAIC (25 percent), China National Automobile Company (10 percent) and the Bank of China Shanghai Trust Consulting Company (15 percent). The JV started to assemble the Santana model from complete knockdown parts with 100 percent imported parts. Its model Santana 2000 was very much outdated for the international market although it did fit the road and petrol conditions in China in the 1980s and early 1990s.

In the beginning, the complete knockdown plant manufactured 35 percent in value of the total parts and components in-house, including body, press parts, and engines. Of the outsourced parts and components (around 4100 units), only 2.7 percent of the value of a Santana came from local suppliers as of early 1987 (the tires, the radio, and the antennae), and the balance came from Volkswagen's international supply network.²²⁴ Although Volkswagen offered its Chinese partner the production technology for the parts and components it made in Germany, the level of local content of the Santana model rose very slowly in the first three years because of the low standard of the local supply

²²³ Shanghai Auto Industry History Editorial Committee (1992: 127-128).

²²⁴ Sit and Liu (2000) detail the process of Shanghai Volkswagen achieved the localization of production and examine its spatial impacts in the form of the establishment of relevant local supply networks.

industry. Also the German partners had little incentive to speed up the localization process. They were not willing to sacrifice the quality of a car by using less qualified Chinese suppliers to satisfy the government and the Chinese consumers. Volkswagen not only wanted to maintain its reputation as a strong, high quality German automotive brand, but also had a financial interest in continuing business with pre-existing suppliers in other parts of the world. Volkswagen's pre-existing suppliers operate at high volumes that in turn offer lower prices than Chinese suppliers', with guaranteed quality.

However, such intent is naturally in conflict with the Shanghai government's motivation of turning the automotive industry as a pillar of the local economic development. The Shanghai Municipal government announced its goal of making the auto sector as a pillar industry since early 1980. Yet instead of forcing foreign partners to meet the local content rate, the Shanghai Municipal government provided various measures. This is one of the secrets behind Shanghai Volkswagen's success in the Chinese market as the top player for the past two decades. One of the significant keys to Shanghai Volkswagen's success is Volkswagen's capacity to adapt to the regulatory framework and to actively meet the local content regulation. Its success is especially astonishing compared to other two JVs who simultaneously entered the Chinese market — Beijing Jeep in 1983 and Guangzhou Peugeot in 1986. The most challenging part for MNCs to establish operation in China is to meet the local content rate especially for earlier entrants. The lack of local supplier development and disagreement over the localization became the major source of tension in Beijing Jeep. The Beijing Municipal government and BAIC rigidly pressed the American Motor Company to follow local content regulations requiring the use of Chinese parts suppliers. However, Beijing's weak heavy manufacturing industrial base and underdeveloped Chinese parts suppliers created tension within the JV. What makes things worse was that both sides were neither capable nor willing to develop the local supplier base. For the American side, AMC underestimated its Chinese partner by informally changing the requirements of local content regulations without properly executing written contracts. Its primary goal was to import a complete kit containing the parts needed to assemble a vehicle—complete knockdown for domestic sales rather than to help the BAIC build local suppliers.²²⁵

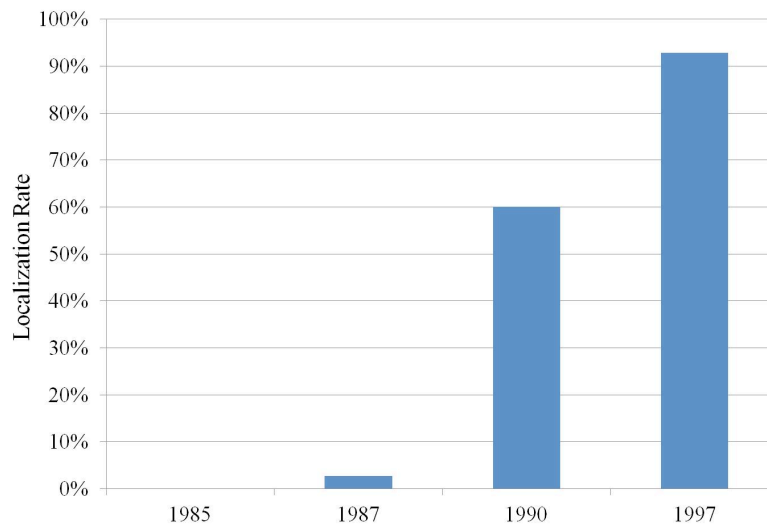
Guangzhou Peugeot followed a similar path where the Chinese side pressured the foreign side to increase local content requirements without specific supportive measures. Despite the central government's promotion of developing the auto industry throughout 1980s and 1990s, the Guangzhou SOEs often took a different route. In the late 1980s and early 1990s—the critical time period for the localization drive at Guangzhou Peugeot, the SOE head office invested in real estate or trading companies in 1991 and 1992 where the profits were highest instead of in manufacturing operations and local supplier development. Also, Peugeot came into the Chinese market with its most outdated model for the purpose of taking advantage of the Chinese cheap labor for a knockdown assembly. After over a decade of friction over the sourcing strategy and local content regulations, Peugeot retreated from the Chinese market by selling all of its factories and

²²⁵ For details of BJC, see Eric Harwit, *China's Automobile Industry: Policies, Problems, and Prospects* (Armonk, NY: M.E. Sharpe, 1995): 67-91 or Jim Mann, *Beijing JEEP: A Case Study of Western Business in China* (Boulder, Colorado: Westview Press, 1997).

facilities to Honda in 1997. As such, in some cases, the local government's forced pressure on local content requirements often resulted in hampering the overall health of JVs or damaging the JVs themselves with no meaningful global-local linkages.

However, Shanghai's local content rate increased from 2.7% in 1987 to 92.9% in 1997 (Figure 6.1). How can we explain such dramatic increase over a decade and Shanghai Volkswagen's astonishing success in the Chinese market as an early entrant? Shanghai's initial situation was nothing better than Beijing's or Guangzhou's. Like Jeep and Peugeot, Volkswagen was only interested in importing complete knockdown kits for assembly in China. Shanghai government's role as a developmental state deserves close attention. However, what makes Shanghai's experience different is that the Shanghai Municipal government did make the local supplier network development easier for the foreign partner by providing supportive measures, unlike Beijing's forced localization. It also developed hierarchical institutions to closely monitor the development process and the use of capital, unlike Guangzhou government's misuse of investment money for the auto sector.

Figure 6.1: Shanghai Volkswagen's Localization Rate (1985-1997)²²⁶



Unified Institutions Governing The Auto Industry

Shanghai Municipal leaders put the first priority of localization effort in streamlining the governing institutions in the auto sector. Former Mayor Jiang Zemin (1986-1988) was an enabled and determined leader who promoted the auto sector development. He was desperate to alleviate the pressure of the stagnant state sector by focusing on the development of new pillar industries, and he had a background of serving in the Shanghai Ministry of Machine Building Industry in the early 1950s and a director of the First Auto Works power plant from 1956-1962. Under his leadership from 1987, the Shanghai Municipal government rearranged its institutions in a way to promote

²²⁶ Compiled by the author.

coordinated development in the auto sector. In a capital-intensive industry like the auto industry, centralized channeling of capital and monitoring of the use of capital are important to coordinate the development process. In order to do so, the responsible government authority should be able to coordinate separate ministries and government bureaus; the head office of SOEs has to have a sufficient amount of power over the subsidiaries. However, with decentralization and *de facto* federalism, many governmental structures in China are fragmented vertically along functional lines (*xitong*, 系统).²²⁷ This especially hinders the development process due to wasted capital investment or bureaucratic tug of wars among government actors.

Realizing the importance of centralized bureaucratic incentives in creating willingness and capacity of sectoral development, the Shanghai Municipal government established the Santana Localization Small Group Task Force Team under the leadership of the Shanghai Economic Commission.²²⁸ However, because it was under the Economic Commission, its bureaucratic rank was the same as SAIC's and because it failed to regulate the SAIC, it eventually led to poor coordination. As a result, in 1987, the Shanghai government created the Automobile Industry Leading Small Group directly under the Shanghai Mayor's office as a higher authority of the Santana Localization Small Group. Two Vice Mayors, Huang Ju and Li Jiaoji, became the direct and the vice-direct of the Small Group respectively. Huang Ju was a graduate from the Department of Electric Motor Engineering Department of Qinghua University who deeply understood the auto sector.²²⁹ Other members include the directors of every government office that might affect the development of the auto sector. Under the Leading Group, the Santana Localization Small Group was placed as an office with a full time staff under the leadership of Lu Jian, the vice-chairman of the Shanghai Economic Commission.²³⁰ The Localization Small Group gives general guidance on management to the automaker and parts makers, while playing a leading role in coordinating finances and resources for the automaker (Figure 6.2).

The most important functions of the Localization office is to ensure the safety of investment at the individual supply firms by providing access to investment capital at preferential rates, and managing relations with the assembly plant. If a local factory consults to the Localization Office, then the factory is evaluated with respect to what technology needed to be licensed and what equipment needed to be imported to meet the Shanghai Volkswagen's standards. Then the loans would be delivered, and necessary conditions would be met. The Localization Office carefully monitored Shanghai Volkswagen's sourcing practices to ensure that local firms were being utilized as much as possible. Shanghai firms that view the localization as producing parts in Shanghai, are both SAIC owned and non-SAIC owned firms. The Localization Office serves as a head

²²⁷ For decentralization and fragmented bureaucracy, see Liberthal and Oksenberg, *Policy Making in China*. Liberthal, *Introduction*. Chung, *Preferential Policies*. Chung, *Central Control*. Yongnian Zheng, *De Facto Federalism in China: Reforms and Dynamics of Central-Local Relations* (Singapore: World Scientific Publishing Co., 2007).

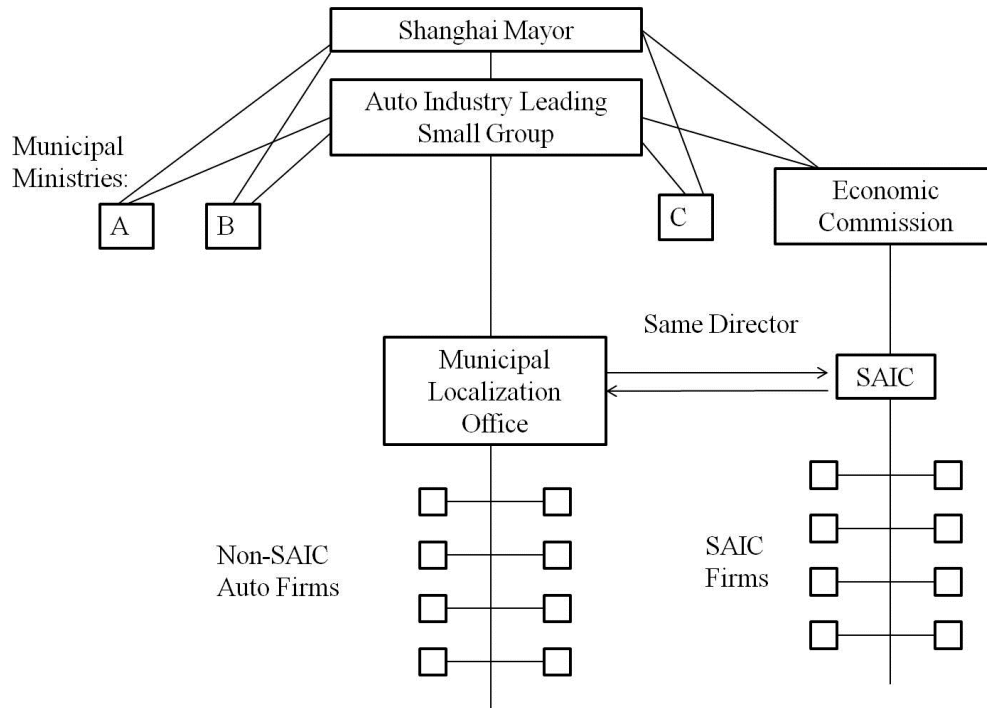
²²⁸ Interview with an expert consultant at Shanghai Maple Motor (November 27, 2010).

²²⁹ He succeeded Zhu Rongji as mayor of Shanghai in 1991.

²³⁰ Interview with a researcher at Japan External Trade Organization in Shanghai (May 14, 2009).

office for non-SAIC firms providing a vertical linkage into the government hierarchy and a horizontal linkage into other supplier firms and assemblers.²³¹ Through this newly developed hierarchical system, Mayor Jiang Zemin directed the Automobile Industry Leading Small Group, which then managed the Localization Small Group. In 1988 the government formed the “Santana Local Content Cooperative” by bringing together the parts makers, banks, universities, and research institutes. A supplier network was formed under the umbrella of SAIC, and in 1991, 133 companies joined the cooperative.

Figure 6.2: Government Institutions in the Auto Sector in Shanghai Since 1987²³²



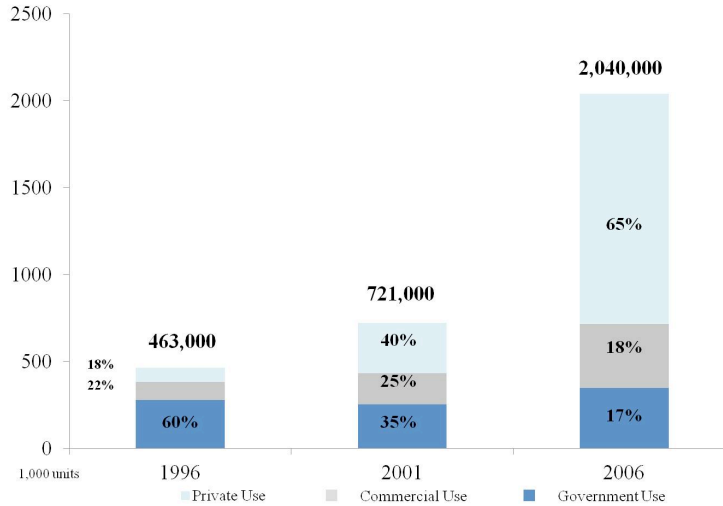
While streamlining the bureaucratic organization, the Shanghai government also adopted various policy measures. First, the Shanghai government purchased much of the output for government use as taxis and municipal vehicles to increase the demand and the scales of economy. As Figure 6.3 suggests, the passenger car market for personal use expanded since 2001, and the government usage accounted for most of the auto purchase throughout the 1980s and the 1990s. In 1996, the government use consisted of 60 percent total vehicle usage, and 82 percent including commercial usage. In order to use the government procurement as a way to boost the demands for Shanghai-produced models, the Shanghai government required local taxi companies, which were also state owned, to purchase only Volkswagen Santana for their taxis. Since the mid 1980s, over 90 percent of Shanghai taxis have been Volkswagen models. As a result, in the early 1980s,

²³¹ Thun, *Changing Lanes*, 116.

²³² Thun, *Changing Lanes*, 111.

Shanghai monopolized the auto sector with 98.8 percent of the market share (mostly for institutional purchase). In 1996, the market share of Volkswagen reached the highest level in its JV history, which was over 51 percent.

Figure 6.3: The Use of Vehicle Purchase (1996-2006)



Second, the Shanghai Municipal government devised various ways to directly manipulate consumer purchases and thus promote locally based Shanghai Volkswagen. In China, the consumer has to purchase not only the car but also the license plate, which provided leeway for the government to capitalize in manipulating the sales. In the 1990s, the Shanghai government charged a 10,000 RMB (1,500 USD) license fee for Volkswagen’s products while charging 80,000 to 100,000 RMB (12,000 USD) for other vehicle models.²³³ Beijing-produced cars were seen as imported goods into Shanghai and were charged high *intra-national* tariffs. Such local protectionism discouraged Shanghai residents to purchase cars other than the Shanghai Volkswagen.

Third, developing parts makers require large sums of money to import necessary technology and purchase relevant equipment. The Shanghai Municipal government collected some of the capital by raising the product cost. In 1988, the Shanghai government started capital accumulation by creating a new fund for local parts supplier development called the “Localization Fund”. Source of the Fund was newly imposed “auto component tax” –a surcharge of 28,000 RMB (16% of total price) to the retail price of each Santana vehicle. This capital was used to provide special low-interest loans to the parts makers in the Shanghai area to assist them in importing necessary foreign technology and equipment. From 1988 to 1994 until the tax was replaced with the VAT tax, the government collected over five billion RMB (\$786.9 million).

At the firm level, it is also crucial for the head office to maintain full control over the SAIC firms. The structure of SAIC resembles the government structures (Figure 6.4). At the first tier, the administrative divisions of the head office make important decisions

²³³ Interview with an academic researcher at a university in Shanghai (May 9, 2009).

to run the company, collect information, and decide where, what and how much to invest. Under the head office there are different independent legal entities including a technology center, a finance company, and a real estate development company. Below that tier are primary assembly plants that SAIC manages, including the JVs. The head office coordinated the development process not only at the assembler level but also at the auto component supply level as well.

As such, the Shanghai municipal government and SAIC carry characteristics of the Developmental State at the local level. First, the government and the SAIC head office act as entrepreneurs by setting the goals to achieve for the localization rate. Second, knowledgeable leaders are necessary to set the goals geared toward sectoral development. Stating from Mayor Jiang Zemin, Vice Mayor Hung Ju to Vice-chairman of the Shanghai Economic Commission Lu Jian all have policy or academic backgrounds related to the auto sector. They serve as the so-called “nimble fingers” of the developmental state model, and even considered as the best and the brightest bureaucrats according to Onis’ framework.²³⁴ This starkly contrasts to the practice of the Beijing government where the relevant leaders governing the auto sector did not have much knowledge about the sector. Third, the relevant administrative offices and SAIC controlled capital, the so-called ‘nerve of the developmental state’ writes Onis. The government was in control of auto component tax and the Localization Fund to be distributed to the SAIC firm under SAIC’s management and to the non-SAIC firm. In order to develop the auto industry as a pillar industry in Shanghai, the government realized the importance of localizing the production of Santana parts as the first actual steps towards building industrial capacity and generating revenue from SAIC. According to Thun, SAIC had three sources of revenue: first is its share of JV profits.²³⁵ Second is the mark up between the factory price of Santana and the distribution price, which became a tremendous amount of capital for SAIC. Because the distribution rights to Shanghai Volkswagen’s product were in the hands of SAIC, SAIC could manipulate the price differences to increase their revenues. The third source is the revenue from SAIC’s in-group suppliers; that is, the more parts SAIC’s in-group suppliers provide, the more revenues SAIC can gain.²³⁶ Fourth, discipline and performance guarantee at the supply firm levels, writes Amsden, is critical to provide incentives for the supply firms to excel.²³⁷ Due to the nature of SOEs, SAIC’s firms were not as disciplined as private firms thriving in Korea and Japan, but the government and SAIC ensured the capacity building at the supplier firm by providing vertical linkages to assemblers and horizontal linkages to other in-group suppliers. They also monitored the progress of each supply firm in an annual review. The operations of each supply firm was audited, and suggestions were made on how to improve its operations. Lastly, for the government, personnel decisions were another means of control for SOEs. The top management of each SAIC group was appointed by the head

²³⁴ Ziya Onis, “The Logic of the Developmental State,” *Comparative Politics* 24, no. 1 (1991): 109-126.

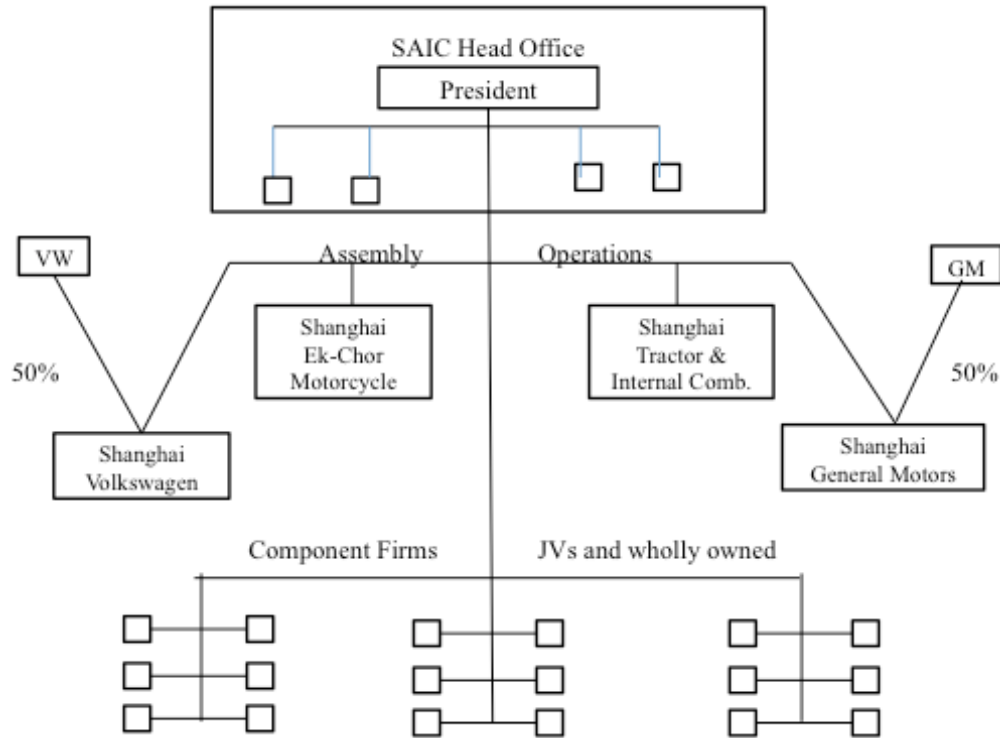
²³⁵ Thun, *Changing Lanes*, 103.

²³⁶ Thun, *Changing Lanes*, 103.

²³⁷ Alice H Amsden, *Asia’s Next Giant: South Korea and Late Industrialization* (Oxford: Oxford University Press, 1989).

office including the general manager, deputy general managers, and directors of each department, which was used as another performance discipline measure.

Figure 6.4: Institutional Structures in the Auto Sector of Shanghai²³⁸



On account of such developmental state characteristics, the development process was well monitored, the authorities were kept well informed, and they ensured that capital was reinvested in the parts industry instead of being used for investment in real estate or a trading company like in the Guangdong province. While developing the necessary institutions, the government and SAIC also put pressures on the foreign partner to be on board with localization initiatives. In 1987, the Vice Chair of the State Economic Commission, Zhu Rongji warned the Chinese and European executives of Shanghai Volkswagen that the Central government would shut down the JV operation if the local content did not increase to 40 percent in a short time.²³⁹ To sustain its business in China, Volkswagen established a special group at its Wolfsburg headquarters in Germany to coordinate the localization of production in Volkswagen, to help with the import of technologies and equipment for potential Chinese suppliers, and to introduce its affiliated suppliers to Chinese suppliers. Volkswagen provided its Chinese partners with the

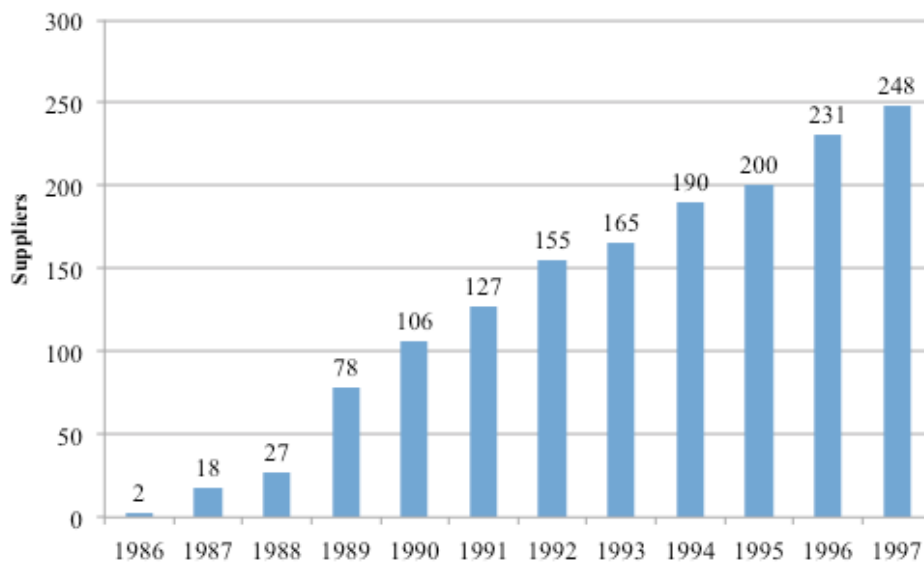
²³⁸ Thun, *Changing Lanes*, 118.

²³⁹ Gregory Chin, *China's Automotive Modernization: The Party-State and Multinational Corporations* (London: Palgrave Macmillan, 2010), 80. Zhu Rongji became the Mayor of Shanghai in 1988, leading the localization of parts process of Volkswagen.

necessary technical documents for parts making, and though it has not itself invested in parts production in China, it has actively promoted business links between Chinese and German suppliers. At present, more than 100 of Shanghai Volkswagen's 300 local suppliers are JVs, including at least twenty with German companies (Figure 6.5).

Much ink has been spilt in discussing whether China is a developmental state or not, but the major agreement has been reached that it is necessary to lower the level of analysis in such a decentralized country like China.²⁴⁰ Some local governments act as a developmental state, but some do not. Shanghai is an example of local developmental state with its primary functions in accumulating capital and monitoring and managing the sectoral development.

Figure 6.5: Development of Active Suppliers at Shanghai Volkswagen²⁴¹



Admittedly, Volkswagen was keen to protect its technology. Strategic decisions on model updating, technology transfer, and sales and pricing were in the hands of German side. For example, the major development work of the new model Santana 200 was done in Volkswagen Brazil. Chinese engineers took three years from 1992 to 1995 to finalize the exterior styling design and the adaptation. To counterbalance the bargaining process of Volkswagen and to implement its own strategy of development, SAIC needed additional global partners. Although Volkswagen made active efforts in helping to

²⁴⁰ Ming Xia, *The Dual Developmental State: Development Strategy and Institutional Arrangements for China's Transition* (London: Ashgate Publishing Limited, 2000). Adrian Leftwich, "Bringing politics back in: Towards a Model of the Developmental State," *Journal of Development Studies* 31, no. 3 (1995): 400-427. Victor Nee, Sonja Oppen, and Sonia Wong, "Developmental State and Corporate Governance in China," *Management and Organization Review* 3, no. 1 (2007):19-53. Shaun G Breslin (1996): "China: Developmental state or dysfunctional development?" *Third World Quarterly* 17, no. 4 (1996): 689-706.

²⁴¹ Thun, *Changing Lanes*,105.

upgrade local supply industries, it was not interested in R&D investment in China until GM was allowed to enter China and established the Pan-Asian Auto-motive Technical Center in Shanghai in 1997. Recently, Volkswagen established a design center in Shanghai, which has become part of its global R&D network.

SECOND LOCALIZATION REGIME (1997-2011): CONTINUED OBLIGATED EMBEDDEDNESS

Shanghai's success with Volkswagen carried over into the city's second automotive JV with GM. In 1994, GM opened a China office in Beijing to begin negotiations for JV establishment. When GM first negotiated the JV, the bargaining power of the Chinese government was at its height. First, China was expected to join the WTO in 2001 and global automakers were competing fiercely to enter the market and establish its foothold before other competitors came into the market. Second, globally competitive automakers including Toyota, GM, and Ford all placed bids to be Shanghai's next JV partner. In 1997, GM finally signed its JV deal with SAIC. Toyota in the end gave up on the bid with SAIC. Some executives of Toyota informed me that the Chinese Central government was not cooperative for the bid to penalize Toyota for not cooperating with China when it asked to do so in the early 1970s.²⁴² The Chinese Central authorities approached Toyota for entering the Chinese market as a way to develop the Chinese automotive industry, but Toyota refused to do so with the objectives of fully focusing on the North American and European markets. The regional government's condition was not favorable for Toyota either. For this second JV, the Shanghai government required the foreign automaker to achieve a higher level of technology cooperation than Volkswagen had established. Toyota felt uncomfortable to deliver and finally gave up on the bid.²⁴³

Between GM and Ford, GM was more attractive to the Chinese side because GM was the largest automotive company in the world. GM was anxious to win the JV with SAIC because GM identified SAIC as a strategic partner which enabled its quick expansion in the robust Chinese market. Shanghai Volkswagen was so successful, producing the most amount of passenger cars and held 54 percent of the market share at that time. GM could benefit from the spillover effects from the first JV because of the most relevant technological experiences that SAIC had acquired. Moreover, the central government selected SAIC as one of the three big players in its 1996 auto policy and provided extensive support. Since GM is determined to keep a strong foothold in the Chinese market, it proposed attractive and aggressive propositions. After extensive lobbying and negotiating over the technology training and transfer, SAIC and GM finally signed a USD 1.52 billion deal to create Shanghai GM during Vice President Al Gore's visit to China in 1997.²⁴⁴ This was the largest investment at that period. For SAIC, the

²⁴² Interview with an executive of Toyota office in Guangzhou (May 3, 2010).

²⁴³ Interview with an executive of Toyota office in Tianjin (June 5, 2010).

²⁴⁴ GM has two other JVs: 1) Jinbei GM in Shenyang, Liaoning province, and 2) SAIC-GM-Wuling in Guangxi province. Jinbei GM began operation in 1992, shut down from 1995 to 1998, and restarted its

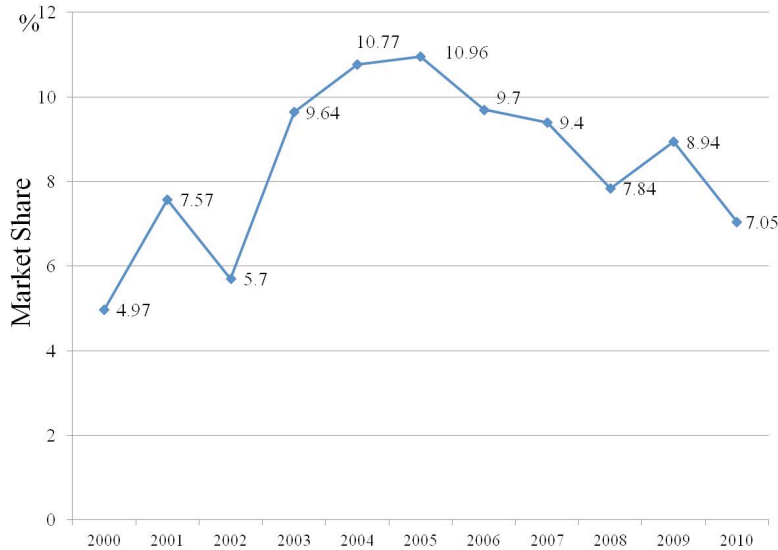
Buick Regal proposed by GM matched its product strategy—to fill in the upper sedan segment, which has an increasing demand, but was not provided by Shanghai Volkswagen.

More impressively, GM promised the Shanghai government to bring the most up-to-date technology and provided an unprecedented level of technical support for the JV. Upon the request from the Shanghai government, GM established a separate 50 million USD 50:50 JV with SAIC for engineering support—the Pan-Asia Technical Automotive Center. This center not only contributed to Shanghai’s local supplier development, but it also put pressure on other global automakers such as Volkswagen to increase their R&D activities in China and provide more up-to-date models. For example, Volkswagen established a design center in Shanghai, which has become part of its global R&D network; it was not willing to do this over a decade of JV partnership with SAIC. Originally, the JVs introduce the old model and introduce a new model afterwards for a higher price. However, Shanghai GM produced the up-to-date model with approximately sixty modifications, and other competitors had to follow suit. It was an active reply to the Chinese automobile industrial policy, which had the intention to stipulate the local engineering and design capabilities. It was a risky proposition, but in return GM gained enough negotiation power towards the Central government, and thus sped up the approbation of the JV project.

The high-risk and aggressive commitment has secured a solid foothold for GM in China. In 1999, Shanghai GM sold 23,000 cars and realized the profit of 500 million RMB (seventy million USD). In 2000, the actual sales of 50,000 units over passed the initial objective of 37,000 units. Shanghai GM has become the first automaker in China to sell 500,000 vehicles within its first five years of operation. Shanghai GM’s share of China’s passenger car market has grown to about 8.6 percent in 2002 from 3 percent in 1999, placing it behind the two JVs of Volkswagen. Starting production in 1999, the market share of passenger car reached 5 percent one year later and reached 11 percent in 2004. Such a quick expansion has created a turbulent business environment for the competitors (Figure 6.6).

production of Chevy Blazers in 1998. Wuling is one of the best SGM started production of a Buick with 47 % of the parts made by local Chinese suppliers, abiding by the Chinese local content requirement of 40 %.

Figure 6.6: Shanghai GM's Market Share

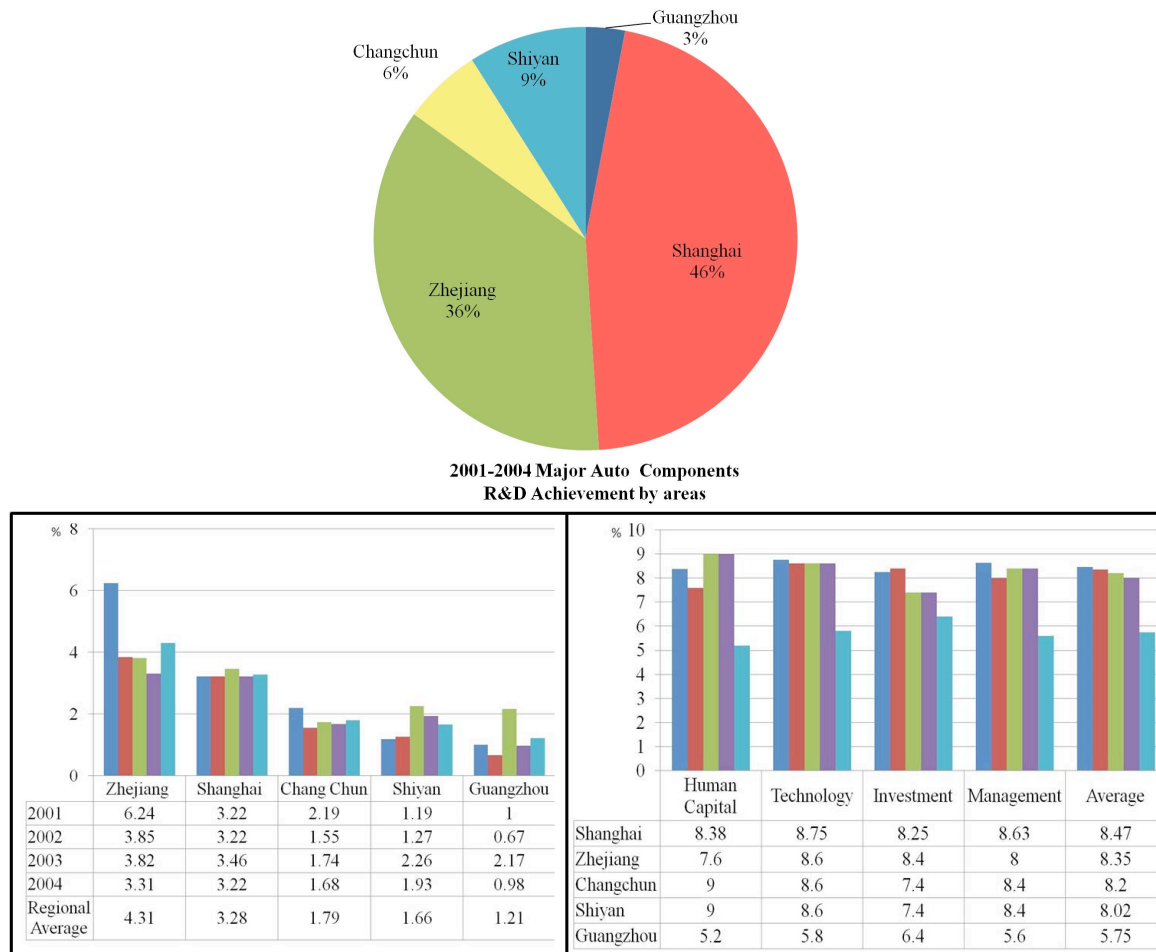


In terms of technology transfer, principle function of Pan Asia Technical Automotive Center is still limited to the partial product and process adaptation so as to fit local road and fuel conditions and to meet local regulations. Shanghai GM has to carry on its own technological improvement. Thanks to the network development of Shanghai Volkswagen, Shanghai GM reached a high localization rate during the first year of production, about 47 percent for the luxury model Buick Xin Shi Ji (New Century), and 70 percent for the Sail model.²⁴⁵ Overall, the Shanghai GM case shows how the Shanghai government led the process of localization in the Chinese auto sector and helped its global automaker partners embed themselves into Shanghai's existing industrial structure.

Thanks to MNCs' cooperation and Shanghai government's proactive role, Shanghai established itself as a strong supplier network base not only for Volkswagen and GM but also for other global automakers in China. As Figure 6.7 suggest, the Shanghai area is by far more engaged and successful in components development and R&D activities than other regions. Changchun region is the main base for the First Auto Works that accounts for about 6 percent of R&D activities; Shiyan is where the Second Auto Works (Dongfeng) is positioned with 9 percent contribution; on the other hand, Shanghai including Zhejiang consists of over 80 percent of R&D activity in China. Zhejiang province sits right next to Shanghai and many parts markers operate in Zhejiang area due to the relatively cheaper land price and labor cost.

²⁴⁵ Kelly Sims Gallagher, *China Shifts Gears: Automakers, Oil, Pollution, and Development* (Cambridge, MA: The MIT Press 2006), 63-74.

Figure 6.7: 2001-2004 Major Auto Components R&D Achievement by Areas in China²⁴⁶



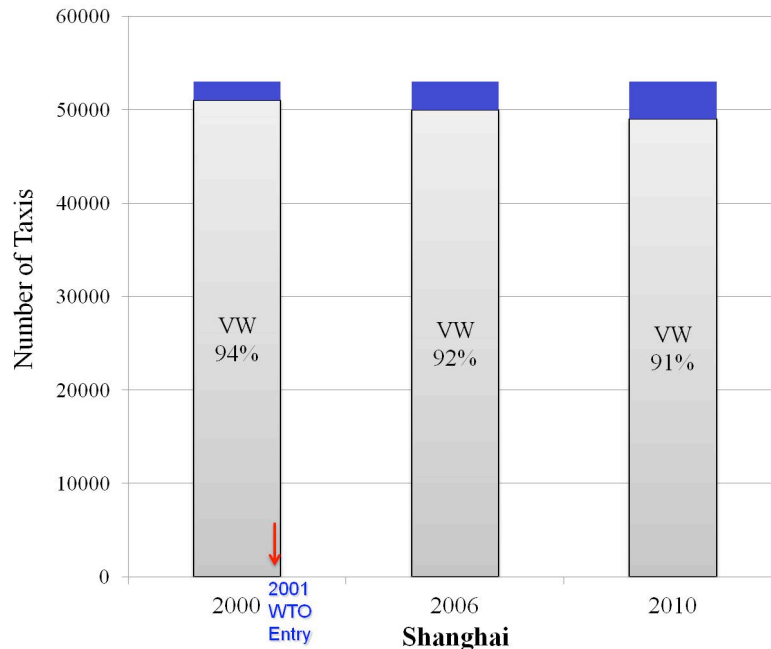
WTO EFFECT?

How did entry into the WTO affect the developmental state role of Shanghai and its use of non-tariff barriers at the regional level? The WTO TRIMs prohibit industrial policy measures that developing countries may wish to use in manufacturing such as local content, trade balancing requirements, and domestic sales limitations. However, as in the Beijing case, the Shanghai government continued to rely on manipulating the government procurement. As Figure 6.8 demonstrates, even after the WTO entry, the local taxi market is still dominated by the Shanghai model especially the Volkswagen Santana. Because China has not signed the government procurement agreement, the local

²⁴⁶ Blue Book of Guangzhou Automobile Industry Development Report (2007), 125 (广州蓝皮书, 2007年: 中国广州汽车产业发展报告, 社会科学文献出版社).

government still has huge leeway in manipulating the government procurement for local protectionism that amounts to 15 to 20 percent of the regional GDP.

Figure 6.8: Taxi Model in Shanghai

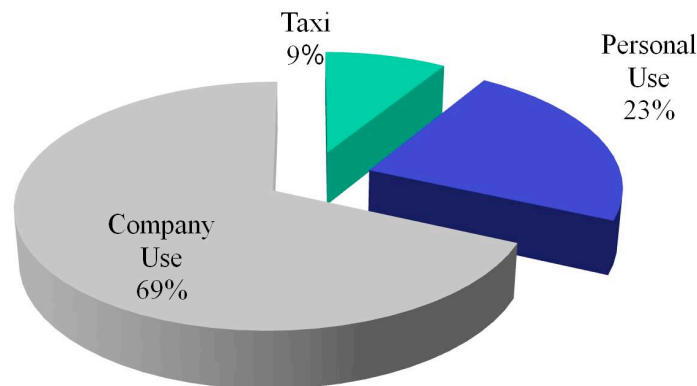


After the WTO entry, the measures to manipulate the private consumption were dramatically decreased, such as extra surcharge for non-locally made auto models. However, China has an interesting category of auto consumption called “company use” (Figure 6.9). Vehicle purchase for the universities and private companies fall under the category of company use, and the Shanghai Municipal government still provides incentives for purchasing locally produced cars through measures such as waiving licensing fee or registration.²⁴⁷ One of my contacts commented that “because most of schools in Shanghai are mainly funded by the municipal government, there are unofficial pressures to purchase Shanghai-made cars for school’s use.”²⁴⁸ Continued local protectionism through government procurement and company purchase demonstrates that China’s entry into the WTO has not prevented sub-national governments from navigating through WTO regulation loopholes. Shanghai’s foreign partner Volkswagen is also supportive of this scheme as it has been the biggest beneficiary of local protectionist measure from the very beginning of MNC’s entry into the Chinese auto market in 1985.

²⁴⁷ Interview with an academic researcher at a University in Shanghai (November 8, 2010).

²⁴⁸ Interview with a manager at Bosch Shanghai office (November 29, 2010).

Figure 6.9: Categorization of Auto Sales in Shanghai



Shanghai: Total Passenger Cars of 647,725 (2003)

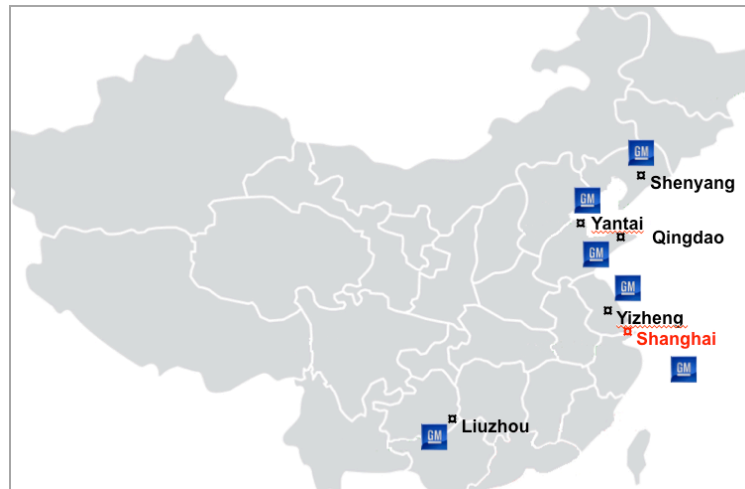
BEYOND “LOCAL” SUPPLIER NETWORK DEVELOPMENT

I argue that the Shanghai government also learned to use the pro-market rules to be more competitive in the market. Especially because its two JVs of Shanghai Volkswagen and Shanghai GM are the top two players in the Chinese market, the Shanghai government and their foreign partners prefer to extend to the nationwide market. To that end, Shanghai GM is actively using M&A to extend its operation cross regionally within China. GM does so via the help of its Chinese JV partner, Volkswagen. At present, the GM group has the most extensive network of automotive production in China, anchored in eight cities (Shanghai, Shenyang, Liuzhou, Yantai, Chongqing, Nanchang, Jingdezhen, and Anshun) (Figure 6.10). GM itself has two official JVs in China, Shanghai-GM and Jinbei-GM (in Shenyang), to produce passenger vehicles and off-road vehicles, respectively. But GM has persuaded its existing Chinese partner, SAIC, to take over other local competitors such as the Liuzhou Automobile Plant (the biggest minivan producer in China) and a car-assembly plant in Yantai, Shandong province,²⁴⁹ which was formerly owned by Daewoo. In effect, these new JVs are considered to be an extension of GM’s partnership with SAIC according to Chinese government regulations. In addition, GM’s international affiliates, Suzuki, Isuzu, and Fuji Heavy Industry, have five JVs in China, producing minicars, minivans, and trucks respectively. Shanghai GM changed the rule of game by extending the intra-regional production network cross-regionally through aggressive M&A. Shanghai GM Dong Yue Motors Company is a good example. It is a JV manufacturing facility situated in Yantai, Shandong. Shanghai GM holds a 50 percent stake and oversees the company’s management. GM China and SAIC each hold 25 percent stakes in the facility, which

²⁴⁹ The project is backed by a \$310 million investment which is used for the building of an environment-friendly plant which makes use of Shanghai GM’s world-class manufacturing, quality and management systems and provides new vehicle body, paint and final assembly workshops as well as a vehicle body distribution center and auxiliary facilities.

manufactures Chevrolet vehicles. The plant has an annual capacity of 240,000 vehicles. Shanghai GM Dong Yue Automotive Powertrain Company has an annual capacity of 375,000 engines and supplies engines for vehicles manufactured by Shanghai GM. Thus, Shanghai GM provides an interesting avenue to examine how strong regional players' takeovers of minor regional players affect local suppliers' industrial upgrading and the cross-regional expansion of suppliers.

Figure 6.10: GM's Operation in China



The expansion of the Shanghai based supply network is not only limited to the geographical boundary of China. The Shanghai Municipal government retains tremendous power due to its massive capital and political bargaining power. Pressured by the Shanghai Municipal government, GM decided to move its electronic vehicle production platform of Chevy Volt to China in January 2012. GM's relocation of its electronic vehicle platform is a disappointment for the U.S. who had been hoping for GM to create green jobs in the country; yet, for GM, it is a rational choice not only from the local political but also from business perspectives. While GM benefited greatly from the rescue package by the US government, GM is selling more cars in China than in the US. Also, in 2009, while GM was sliding into the bankruptcy reorganization in 2009, it sold a 1 percent stake for 84.5 million USD to SAIC that gave SAIC majority control of the venture.²⁵⁰ GM in 2009 relocated the headquarters for all its international operations to Shanghai.

²⁵⁰ In April 2012, GM asked to regain the 1 % stake from SAIC. Shanghai GM plan to split into two parts: a sales arm and an overarching operational arm. GM and SAIC would share 50-50 control over the operational side, which has the power to set the budget and make product decisions and control hiring, including picking the next top executive. SAIC would retain 51% in the sales arm, which would be where revenue is booked. GM and SAIC still need approval for the arrangement from the regional Shanghai government and central government authorities in Beijing.

Techno-nationalism and authoritarian capitalism perspective can predict that the JV formation would threaten MNCs if Chinese JV partners become independently competitive and go into the global market as they break the JV. Then MNCs would have to compete with their previous JV partners not only in China but also in the global market. However, interestingly enough, GM is rather using its capital and operational power of the Chinese Central government in expanding its global operation. In 2010, GM lacked the cash to invest in India alone, and asked SAIC to set up a JV and share the development cost in India. In recent months, the heated debates among the scholars and policy analysts revolve around the rise of state capitalism as a challenge and even an alternative to market-based capitalism. State Capitalism is a form of capitalism where the state actively intervenes in the market to advance its economic actors (both SOEs and private), and acts as a gatekeeper between the domestic and the international economy to ensure that the foreign investors and economic factors contribute to the domestic economic development. However, in a decentralized economy like China, the sub-national governments play a gatekeeper role while the SOEs are the nodes between the global and local economic forces. The local structures governing certain industry and their partnership with varying FDI significantly determine the ability of the locality in creating local-global linkages through either relying on the foreign partners or nudging them to educate the Chinese side with long-term investment. Shanghai's interaction with GM is one telling example. The obligated embeddedness in the Chinese market is globalizing through GM's network in the global market.

Table 6.1: State-led Supplier Network Development in Shanghai

	IV 1: Relationship to the State	IV 2: Relationship within the SOE	IV 3: Relationship to FDI	Outcome
First regime (1986- 1997)	Centralized	Centralized	JV with Volkswagen	Managed local content requirements increased the capacity building of local suppliers
Second regime (1997- 2011)	Centralized	Centralized	JV with GM	MNC's willingness to nurture the local suppliers contributed to strengthen the local supplier base

CONCLUSION

Learning from the past wasteful import substitution strategies for their component suppliers, the Shanghai Municipal government endeavored to “hook into” certain niches or segments of global value chains by promoting vertical linkages between the local suppliers and government offices as well as horizontal linkages among suppliers. This chapter traced Shanghai's local auto supplier network development, which represents a case of local government-driven glocalization. In so doing, the Shanghai Municipal

government closely followed the practices of developmental state at the local level. It acted as an entrepreneur who plans the goal and pursued various industrial policies to develop the region's auto parts suppliers. It developed a hierarchical institutional structure governing the auto industry, which gave it greater capacity to channel capital and monitor the sector's development—i.e., developing necessary institutions for “learning by doing” as Amsden writes.²⁵¹ It also followed Gerschenkron style's description of capital accumulation through the Localization Fund.²⁵²

Following the path of a local developmental state, the Shanghai government supported JV partners' efforts to nurture and identify local suppliers while nudging them to establish a technology center in the region. GM set especially high new standards for technology cooperation with a Chinese partner by establishing the Pan-Asia Technical Automotive Center with SAIC for engineering support. This center not only contributed to Shanghai's local supplier development, but it also put pressure on other global automakers such as Volkswagen to increase their R&D activities in China and provide more up-to-date models. As a result, Shanghai became the strongest auto supplier base in China and created a relationship of “obligated embeddedness” with foreign automakers. And such relationship of obligated embeddedness is expanding not only cross-regionally in China through GM's M&A activities, but also cross-nationally through co-investments between GM and SAIC.

²⁵¹ Amsden, *Asia's Next Giant*.

²⁵² Gerschenkron, *Economic Backwardness in Historical Perspective*.

CHAPTER SEVEN
FRAGMENTED LIBERALIZATION:
SUB-NATIONAL STATE CAPITALISM IN POST-WTO CHINA

CHINA'S NEW RACE TO THE TOP

Both developed and emerging economies strive to increase the value-added of their industries and move up the global production value ladder to compete and survive in the global economy. Yet, in contrast to efforts in developed countries, for China, industrial upgrading poses a greater challenge because of its unique developmental path. From the onset of its economic development, China has followed a distinctive development path compared to other late developers in Latin America and East Asia by deeply integrating into the global production network. Such a strategy successfully brought about China's first transformation to a market economy and attracted considerable amounts of FDI since the 1980s, mostly in the form of labor-intensive sunset industries. With the decentralization of the economic decision-making power, most sub-national governments at the municipal and provincial level competitively engaged in the "race-to-the-bottom". However, the Chinese Central government strived to reconfigure its developmental path by encouraging industrial upgrading of indigenous Chinese companies in recent years. The 11th Five-year plan (2006-2010) reset China's economic goals and policy orientation;²⁵³ what once favored quantity-over-quality, race to the bottom, and a region-focused policy now aspires to be quality-over-quantity, race to the top, and a sector-focused policy. Adopting a "scientific approach" to "construct a harmonious society," the 11th Five-year plan attempted to promote high value-added industries and encourage industrial capacity building of domestic companies. Such effort to create a race to the top also differs much from what Japan and South Korea have experienced. Japan and South Korea upgraded in what I call a "stair-like" fashion, transforming from one industry to the next. They invested mainly in the light industry in the 1960s, then in the heavy industry in the 1970s, and later in the high-tech industry. In contrast, China faces massive and simultaneous industrial upgrading in various industries, ownerships, and origins, thereby experiencing what I call the "elevator-type" industrial restructuring.

Given this backdrop, the underlying questions that connect all the dots in this dissertation include 1) how an emerging economy like China, seeking to move up the global production ladder, managed to upgrade its industrial structure in cooperation or in competition with foreign enterprises, 2) how the various ways in which a specific region interacts with global economies affect China's ability to sustain economic development, and 3) what affects their ability to channel the dual economic forces to maximize the benefits of FDI, especially when the government protégé of SOEs serves as the node of global-local economic forces. I answered such questions through the sectoral analysis of

²⁵³ The 11th Five-year plan puts forward six priorities: 1) bringing about a change in the mode of economic growth; 2) readjusting and optimizing the industrial structure; 3) bringing about coordinated regional development; 4) intensifying the building of a harmonious society; 5) addressing the three agricultural issues; and 6) promoting the sound development of urbanization.

China's burgeoning automotive industry—one of the most strategic yet decentralized sectors in China.

My investigation of the relationship between the Chinese regional economic development and its global linkages from comparative perspectives uncovers three distinctive models of creating global-local linkages in the automotive industry. My three case studies of Beijing Hyundai, Tianjin Toyota and Shanghai GM serve as the representatives of each model. First, Beijing Hyundai is the prototype of an MNC-driven supplier network development where Beijing's auto industry development pathway represents how the Municipal government and its protégé SOE developed a supplier network by completely relying on the foreign partner. In the first stage of localization, Beijing's decentralized relationship with BAIC and fragmented corporate structure within BAIC created a barrier for coherent efforts to nurture local supplier, thereby leading to the failure of JV with American Motor Company. However, the same institutional condition played as strength when China joined the WTO. The Beijing government was empowered to choose between the liberalizing and protectionist measures so that it could facilitate the operation of Beijing Hyundai Motor Company by allowing Hyundai to bring all of its own suppliers from Korea. Some research has depicted Beijing city government and BAIC as one of the most incapable bodies in developing auto industry in China. However, I argue that Beijing found its own strategic advantages by pretending as *laissez-faire*, empowered by the liberalizing measure. The Beijing city government relied on local protectionism to use government procurement to promote Hyundai's model for its own taxi market, while allowing the full transplanting of Hyundai's Korean suppliers without receiving much political criticism for failing to nurture indigenous companies thanks to the WTO rule. Such mixed use of protectionism and liberalizing measure demonstrate the importance of sub-national government level industrial policy in the context of *fragmented liberalization*.

Tianjin Toyota is a case of an MNC-driven supplier network development with a high local supplier presence. Rather than reactively responding to its late entry to the Chinese market in 2000, Toyota devised various alternative strategies to reshape the local conditions that it would embed itself into. As a way to gain local information and local network penetration, Toyota took the majority share of Daihatsu, which had a licensing agreement with TAIC and parts-making JV cooperation. In addition, Toyota also encouraged its suppliers and subsidiaries to pre-clusterize and to set up a virtual supply plant before its actual entry in 2000. This is in stark contrast to Toyota's original strategy of follow-the-flag strategy in Southeast Asia in the 1960s and in the US in the 1980s. Toyota's proactive approach not only helped Toyota's soft landing as a late developer in the competitive Chinese auto market, but also contributed to the significant industrial upgrading of Chinese local suppliers. This challenges existing literature in the Chinese studies and the inside-out perspective in global network development literature which tends to overemphasize the role of local institutions and local regulations in restricting MNCs. Tianjin Toyota's pre-clusterization demonstrated how some foreign partners have reshaped the existing industrial structure of a given region where they needed to embed themselves and how the cooperation between SOEs and foreign partners prior to JV formation affects the mode of obligated embeddedness.

The third case is Shanghai GM, a case of an MNC's obligated embeddedness and a Municipal government that led the local supplier network development. The Shanghai Municipal government not only actively pursued various industrial policies to develop the auto suppliers in the local area but also developed a hierarchical institutional structure governing the auto industry, which allowed it to have firm capacity in channeling capital and monitoring the development process of sector. With its role as a local developmental state, the Shanghai government supported JV partners to nurture and identify local suppliers while nudging them to establish a technology center in the region. GM set the new standard for technology cooperation with Chinese partner by establishing the Pan-Asia Technical Automotive Center with SAIC for engineering support. This not only further contributed to Shanghai's local supplier development but also put pressure on other global automakers such as Volkswagen to increase R&D activities in China and creates more up-to-date models.

After China's WTO entry, the Shanghai government also used both protectionism and liberalizing measures in the context of *fragmented liberalization*. It still relies on local protectionism for taxi market while utilizing pro-market rules in M&A activities to expand GM's operation cross-regionally in China. The Shanghai local government-led supplier network development expands cross nationally as seen in the case of SIC-GM's co-investment in GM's operation in India. In sum, Shanghai's obligated embeddedness of foreign automakers enables Shanghai to become nationally competitive in China and globally in the future.

Overall, in the JV framework, two main factors affect the variation in the local supplier network development. First is macro-level governance, referring to government policy and governing institutions over the auto sector in a given region—both of which serve as ways to test the government ability to control and manage the development process. Examining the government's industrial policy goals and incentive structure for the government leaders reveals the leadership's willingness to develop the local supplier network. At the SOE level, the micro-level institutional factors of intra-firm structures and inter-firm relations within the auto group affect the capacity of the head office in channeling the capital and monitoring the development process. Also the structure explains the incentives of the head office behind investing in the supplier development in its own locality.

From the MNC side, the way the foreign partner embeds itself to the regional institutional and industrial structures matters. Admittedly, China's regulations on maximum ownership limit of foreign automaker's operation constrain two of the most important strategies of global firms of entry mode and entry timing. This made the foreign side possess little control over selecting a partner and compel foreign automakers to embed themselves into the given geography with specific industrial structure and local institutions. However, simultaneously it is important not to underestimate MNCs' capacity to proactively devise alternative China strategies instead of reactively responding to Chinese regulation. Even though MNC's entry mode is fixed as JV with Chinese SOEs, my research reveals that the prior mode of cooperation before JVs establishment and its path dependency is critical for further cooperation afterward. Most of the research takes the negotiation leading to the JV cooperation as an analytical

starting point; however, MNCs tend to start their informal negotiation or market entry preparation in advance. Some global automakers have no prior-arrangements and started Chinese operation from JVs. In these cases, global automaker has a burden in developing and identifying the local suppliers. Some move from a type of technology licensing agreement with existing local auto manufacturers into a full-blown JV formation. Such prior mode of operation serves as a litmus test for more extensive future investment. I argued that the status as an earlier vs. late developer is not a critical factor deciding the success in the Chinese market. Among the three earlier JVs, only Shanghai Volkswagen in 1985 survived while Beijing Jeep and Guangzhou Peugeot failed and exited the Chinese market mainly because of the tension within the JVs over localization. Forced use of local suppliers could damage the health of JVs and hamper cooperative relationship between JV partners.

The JV set-up by regulation has been a mixed blessing. The original motivation behind the Chinese Central government is to create their own national champions following the footsteps of Japan and South Korea. However, a growing body of literature criticize that the policy of exchanging technology with a market has failed and SOEs have not developed “self-proprietary” cars—cars whose intellectual property they own and whose technology they have mastered.²⁵⁴ Several examples attest to the weak level of technology development in China’s national champions in the automotive industry. More than two decades after its first JV with Volkswagen, SAIC has no self-developed car models except for ROEWE, introduced in 2007. However, this model is actually a modified version of the Rover 25 and 75 purchased from MG-Rover. Dongfeng (Second Auto Works) represents the extreme, closing its technical center for car development in 2002 and therefore effectively abandoning the effort to design its own models. Admittedly SOEs lack the incentive and ability to develop self-proprietary cars and tend to rely passively on technology spillovers from foreign companies. Without gaining much technology, SOEs still gain large revenue from the increasing sales and growing pie of the Chinese passenger vehicle market. For the global partner, there is a lack of incentive to teach its Chinese partners anything beyond what is needed to get the models into production and better manufacture them. The foreign companies essentially select what would be transferred and how, without necessarily teaching their Chinese partners anything significant. However, in comparison with precedents, it is critical to remember that Japanese and Korean auto companies developed self-proprietary vehicles over the span of three decades, despite the efforts of their respective governments to protect and insulate the automotive industries.

Building on the previous literature, I make two contributions. The first is that two of my cases are relatively late entrants of Japanese and Korean automotive companies.

²⁵⁴ Chunli Lee, Jin Chen and Takahiro Fujimoto, *Different Strategies of Localization in the Chinese Auto Industry: The Cases of Shanghai Volkswagen and Tianjin Daihatsu*, Working Paper for the MIT IMVP Sponsors Meeting, 1996. Eric Harwit, “The Impact of WTO Membership on the Automobile Industry in China.” *The China Quarterly*, 167 (2001): 655-670. Hua Wang. *Policy Reforms and Foreign Direct Investment: the Case of the Chinese Auto Industry*, paper presented at the 9th GERPISA Colloquium, Reconfiguring the Auto Industry, Paris, France, 2001. Lu, F. and Feng, K. (2004) *Fazhan woguo zizhu zhishichanquan qichegongye de zhengce xuanze* [The Policy Choice in Developing China’s Proprietary Car Industry] (Beijing: Beijing University Press).

Previous studies focused on the European and American companies who were the earlier entrants of the Chinese market since mid 1980s. Japanese and Korean firms are relatively late entrants (Toyota in 2000 and Hyundai in 2002). Now that they have been in China for about a decade, I believe that this provides a long enough track record for research. Second, my analysis focuses on the second stage of growth in the automotive industry. In examining the first stage of growth in the auto sector, Thun points out that Shanghai has played a role as a local developmental state in targeting necessary resources and supervision to the auto sector, while Beijing was incapable of doing so. However, the fact that Shanghai was successful in the initial stage of auto sector growth does not necessarily guarantee the continued success in sustaining the development; the same logic applies for Beijing. In the first phase of growth, both firms had the benefit of high levels of protection; the JV assembly plants had no choice but to use local suppliers. The government imposed local content requirements, imported components were too expensive, and wholly owned supply firms were difficult to establish. However, things have changed over the past ten years. Chastened by the early failure, the Beijing government aggressively invited the foreign auto companies yet took a more *lassie-faire* way in terms of developing the sector. It was more receptive to the foreign JV partner by allowing foreign JV partners to transplant their own supplier networks. From this perspective, China's WTO entry clearly reformulated the context of JV competition by way of liberalizing measures and tariff regulations.

INDUSTRIAL UPGRADING IN POST WTO ERA CHINA

China joined the WTO in 2001 after fifteen years of marathon negotiations, long enough to "turn black hair white," as the China's former Prime Minister Zhu Rongji puts it. As a result, China has agreed to comply with pro-competition, anti-protection, and non-discrimination principles with the incentives of inviting more foreign investment and gaining larger global market access. China's entry was hailed as a significant step forward in opening China's markets and curbing government practices that put foreign firms at a competitive disadvantage. China was expected to have accelerated economic liberalization along the lines of: 1) less industrial policy, 2) less protectionism for domestic companies, and 3) less discrimination against foreign companies. The liberalization group of analysts especially supports the notion that the WTO and MNCs would successfully pressure China to liberalize its economy. For example, if China violates some of the rules, other countries can take the case to the WTO's Dispute Settlement Body (DSB) to discuss possible penalties. Such mechanisms can reduce incentives to promote protectionism against the WTO rules. Frieden and Milner also suggest that once MNCs are operating in the emerging economies, they actively lobby for increasing market access and further liberalization with the rise of export lobbying group. These firms are seen to represent values such as free market competition and the clear rule of law. Lastly, international legal scholars believe that once countries join

international legal agreements, they change behaviors and abide by those agreements out of reputational concerns as a responsible international member.²⁵⁵

Even though the WTO has been successful in pushing China towards more liberalizing directions, it has three fundamental limitations. First limitation of the WTO originates from its inherent nature as a state-to-state agreement to lack the capacity of local enforcement of the WTO rules. According to the WTO requirement, Article XVI: 4 states that “[e]ach Member shall ensure the conformity of its laws, regulations and administrative procedures with its obligations as provided in the annexed Agreements.” In such federal countries as the U.S. and Canada, federal laws are more important than state laws in terms of trade, which is essentially interstate matters, and the federal governments have the ability to pressure the sub-national entities to conform to the WTO rules if necessary. Article XXIV: 12 of General Agreement on Trade and Tariffs in 1947 applied such rules to a “federal” country.²⁵⁶ In other words, for federal members, the Central government must take all reasonable measures to seek the removal of the WTO-inconsistent measure, which is a different obligation from removing the measure itself.²⁵⁷ On the other hand, the Chinese Constitution states in the Preamble that China is a “unitary multi-national state created jointly by the people of all its nationalities,” that is, China is not a federal state by a constitutional division of powers.²⁵⁸ The State Council (effectively the executive branch) exercises the power to formulate regulations and sub-national government exercise powers delegated to them from the center. A “province” or equivalent is a rank in the administrative hierarchy equivalent to the rank of a ministry in the Central government. In other words, unlike federal systems as in Australia, Canada or the United States, the provinces do not have constitutional powers separate from that of the Central government.²⁵⁹ Moreover, there is no judicial review at the sub-national level and when judges are employed and paid by the local governments, impartial judgments are hard to come by.²⁶⁰ Against this backdrop, I argue that although the WTO may constrain the Chinese Central government, sub-national governments retain significant autonomy. Ironically, by restricting the Central government’s ability to monitor and control local protectionism, China’s WTO entry enabled local governments to protect

²⁵⁵ Beth A. Simmons, “International Law and State Behavior: Commitment and Compliance in International Monetary Affairs,” *The American Political Science Review* 94, no. 4 (2000): 819-835.

²⁵⁶ The federal clause is controversial because even though it may have been the case for the equivalent provision in GATT 1947, there is nothing in the text of the current WTO Agreement to suggest that the provisions discussed above are applicable only to federal systems.

²⁵⁷ Mary Bottari and Lori Wallach, “Federalism and Global Governance,” Public Citizen Report (2008)

²⁵⁸ Even though China is not a federal state with a division of powers allocated by its constitution, measures put in place by the administrative divisions of provinces; special administrative regions or municipalities are legally valid within China. Therefore, for the purposes of the WTO Agreement, measures by these administrative divisions of China are measures of “regional or local governments or authorities”, as opposed to measures of the central government.

²⁵⁹ In the US the central state is strong but power is constitutionally delegated to sub-national entities (states), whereas in China power is formally unitary but is informally delegated to sub-national governments, in part because of the weaker state capacity of the central government. Thus, ironically, sub-national autonomy on WTO issues may be greater in China because it is informal rather than formal.

²⁶⁰ Stephanie Balme and Michael W. Dowdle, *Building Constitutionalism in China*. (New York: Palgrave Macmillan, 2009).

their industries. Furthermore, the pro-market WTO rules helped local governments engage in subtle anti-competitive practices at the sub-national level by providing preferential treatment to foreign JV partners. Foreign companies provide SOEs (and thus, local governments) with technology and capital while local governments manipulate public policy to ensure favorable market conditions for their JV partners against JVs based in other provinces. I call this process of market manipulation “fragmented liberalization,” namely the process whereby *sub-national* governments selectively adopt measures of liberalization and protectionism rather than wholly adopting liberalizing measures imposed by the WTO on the Central government.

Another limitation of the WTO’s ability to constrain China’s reliance on industrial policy is its inability to pressure China to sign the Government Procurement Agreement (GPA). Chinese governments at various levels have been widely using government procurement as a way to create market entry barriers for foreign companies and to support domestic players. Accounting for 10 to 15 percent of China’s GDP, government procurement is expected to continuously prop up Chinese governments’ industrial policy.

The third limitation of the WTO mechanism in the framework of liberalizing China and promoting industrial upgrading is the function of the Dispute Settlement Body (DSB).²⁶¹ As a body of the WTO to enforce trade rules, the DSB consults the problems of WTO rule violation upon the request of trade representatives of other countries. Because the DSB’s measures do not punish the loss caused by violated provisions, there is ample room for countries to commit violations for a certain period of time as an infant protection strategy and still achieve what it intends to by the time the DSB prevents the measures. This is best shown in China’s first compliance to the WTO dispute settlement over China’s tariff violation on auto imports. In 2004 the Chinese government announced a new Automotive Industry Policy as a measures to comply with the WTO entry. It not only abandoned the local content requirement, but also lowered the tariff on imported cars to 25 percent and that on imported parts and components reduced to 10 percent by 2006. However, the Chinese government announced a new regulation that if a final vehicle has more than 60 percent of imported parts, it was viewed as completely imported cars and charged 25 percent tariffs instead of the 10 percent tariff on auto parts. In September 2006, trade representatives from the E.U., the U.S., and Canada pressured by domestic parts makers contested China’s tariffs on imported auto parts and demanded an investigation. Meanwhile, the Chinese government postponed the implementation of the new rules by two years. In July 2008, the WTO ruled that China has violated its WTO commitments in this case and the new regulation was illegal. After four years of negotiation within the DSB, China finally agreed to comply with the WTO rule in 2009

²⁶¹ Settling disputes is the responsibility of the Dispute Settlement Body, which consists of all WTO members. The Dispute Settlement Body has the sole authority to establish “panels” of experts to consider the case, and to accept or reject the panels’ findings or the results of an appeal. It monitors the implementation of the rulings and recommendations, and has the power to authorize retaliation when a country does not comply with a ruling.

and removed the new regulation. However, the President of GM China Kevin Hale commented that

*China's decision to comply with the WTO rules on the tariffs on the imported automotive parts will have virtually no impact on our operation, because most of our operation is already localized and produced within China.*²⁶²

One of the executives of Toyota's China office also made similar comments.²⁶³ This not only shows the marginal effect of WTO rules, but also demonstrates the diverging interests between export lobbying groups in home countries and MNCs in China. It is not only the Chinese parts suppliers but also GM and Hyundai's suppliers who block the market entry of independent auto parts suppliers in America. Also because it takes time for the DSB to investigate, discuss and resolve the violated rules, violating the rules and going through the DSB consultation provides more benefits for some countries that wish to rely on industrial policy measures. Such examples in the auto industry repeat in other sectors for infant industry protection and industrial upgrading of local companies. For example, the Chinese Central government imposed local content requirements and substantially hiked the tariffs on imported components in the wind turbine industry and the high-speed railway industry, while providing subsidies for the domestic companies. In the wind turbine industry, foreign companies held a 75 percent market share from 1996 to 2005, but by 2009, Chinese companies, led by Sinovel and Goldwind, controlled more than two-thirds of the market and the foreign share was down to 14 percent.²⁶⁴ In fact, foreign companies have not won a single central government-funded wind energy project since 2005. In 2005, the NDRC quietly increased the local-content requirement on wind turbines from 40 percent to 70 percent and substantially hiked the tariffs on imported components. As the market exploded, foreign manufacturers were unable to expand their supply chains quickly and meet the increased demand. In the meantime, the 2006 Renewable Energy Law dramatically increased government money for wind energy projects and dozens of companies sprang up. Their Chinese competitors, who had been licensing technology mainly from small European turbine producers, took up the slack rapidly and cost-effectively. The 2007 Foreign Investment Industry Guidance Catalogue listed wind turbine manufacturing as an encouraged industry for foreign participation. But to upgrade domestic wind turbine capabilities, foreign involvement in the manufacturing of wind turbines over 1.5 megawatts was restricted to JVs or partnership. Technology transfers together with government financial subsidies, preferential tax policies and preferential treatment in project tendering and bidding have fueled rapid growth of domestic companies.

In June 2011, the US trade representative took the case of China's wind subsidies brought by United Steelworkers Union to the DSB that it was a form of protectionist measures that violated free trade by artificially promoting domestic goods at the expense of imports. China complied with the WTO rules and eliminated the subsidies, but

²⁶² "After Carmakers Adapt, China Trade Dispute Ends," *The New York Times*, August 31, 2009,

²⁶³ Interview with an executive of Toyota office in Guangzhou (May 3, 2010).

²⁶⁴ Vinod K. Aggarwal and Simon J. Evenett, "Financial Crisis, 'New' Industrial Policy, and the Bite of Multilateral Trade Rules," *Asian Economic Policy Review* 5, no.2 (2010): 221-244.

domestic players now can independently manufacture and they own the market for 1.5 MW wind turbines, the mainstream size installed on today's wind farms. The similar story repeats in China's high-speed railway where the Chinese national railway company gets most of the contracts with state sponsorship and triumphed over foreign competitors who controlled two-thirds of the market in early 2000s including France's Alstom, Japan bullet train's Kawasaki, and Siemens.

In contrast to the existing literature, I demonstrate that MNCs are not necessarily the main drivers of liberalization. They rather often covertly support local governments' regional protectionist measures, depending on their form of market entry, and on their form of competition within the country. Especially in the auto industry, China's ownership regulation created a distinctive pattern of encouraging *intra-national* competition between regional JVs rather than competition between foreign and domestic companies. In alliance with SOEs and their foreign partners, sub-national governments often thwart the liberalizing effects of international and national regulations. In these interactions, MNCs are hardly the consistent champions of economic liberalization that they are often taken to be, but rather allies of sub-national actors to support local protectionism. As such, understanding the micro-foundations of industrial policy is critical to understanding China's ability to promote industrial upgrading in relation to FDI as well as its impact on the global economy and international institutions.

CONTRIBUTIONS: BEYOND CHINA AND BEYOND THE AUTOMOTIVE INDUSTRY

My findings and arguments rest mostly on the extensive analysis on China's burgeoning auto industry and on a cross-provincial comparison within a single country. However, the implications of my research on varying mode of industrial upgrading and the WTO compliance extend beyond the sectoral scope of the automotive industry and the national boundaries of China. My focus on the interaction among the sub-national government, SOEs and global automakers allow me to look at the intersection of comparative political economy and international political economy. My sectoral focus sheds light on the unique developmental path of the Chinese auto industry while inviting foreign investment, and subsequent strengths and weaknesses. As a late developer in a globalizing economy, Chinese governments at various levels attempted to strike a balance between the developmental path of Mexico's total reliance on FDI and subsequent "dependent development," and Japan and Korea's relative closure to FDI-oriented development.²⁶⁵

Then how far can my findings and implications travel cross sectorally and cross nationally? In examining the factors explaining the variation in supplier network

²⁶⁵ For dependent development, see Peter Evans, *Development: The Alliance of Multinationals, State, and Local Capital in Brazil* (Princeton, NJ: Princeton University Press, 1979), 14-34. R. Kronish and K.S. Mericle *The Political Economy of the Latin American Motor Vehicle Industry* (Cambridge, MA: The MIT Press, 1984). Gabriel Palma, "Three and a half cycles of mania, panic, and [asymmetric] crash: East Asia and Latin America compared," *Cambridge Journal of Economics* 22 (1998), 789-808). Victor Bulmer-Thomas, *The Economic History of Latin America Since Independence* (New York, NY: Cambridge University Press, 2003).

development in the auto sector, my work shows what kind of operational strategies are available at the sub-national levels in this global economy. It also demonstrates that the sub-national level compliance explains the course of liberalization better than the central level compliance in such a fragmented and decentralized country like China. The regional governments reinterpret the inter-state agreements of the WTO when implementing policy. The sub-national level is often an ignored level in which nation-to-nation agreements and national regulations are implemented and reinterpreted on the ground. By examining the interplay of international, national and sub-national politics, I show that international agreements like the WTO have complex effects that are both counterintuitive and heavily dependent on the local context. This phenomenon of “fragmented liberalization” is relevant not only to China, but also to other emerging economies that share China’s fragmented economic structure and reflect the dominance of state-owned enterprises in key economic sectors. How do they comply with international legal agreements and attempt to move up the global production value ladder? Who are the main actors and what is the main mode of creating global-local linkages? Emerging economies such as Brazil and India all tend to have decentralized and fragmented economic structures. An increasing amount of research focuses on the varying ways that different sub-national entities create global-local linkages and the impact of the WTO in these economies. In December 2011, after 18 years of negotiation, Russia also joined the WTO.²⁶⁶ In this context, cross-national comparison is an interesting point of future research.

Another point of future research is to investigate to what extent different sectoral characteristics affect compliance to the international agreements in terms of the framework of fragmented liberalization? The prior condition of fragmented liberalization is the decentralization of economic power, and varying sectors develop different degrees of control between centralization and decentralization (Table 7.1). The Central government tends to maintain firmer control over such strategic sectors, such as aviation and high-speed railways, thereby dictating the pace of liberalization and globalization in those sectors. More Central government-directed and strategic sectors are more likely to follow a closed liberalization process. As a telling example, not only the high-speed railway but also wind turbine industries have been recently subjected to the WTO’s trade disputes within the DSB due to the Central government’s use of industrial policies. On the other hand, such non-strategic sectors as textile industry are extensively decentralized with less government intervention. These sectors would take the course of full liberalization and full market competition. The auto sector is situated in between of these two spectrums as a decentralized yet strategic sector, where “fragmented liberalization” takes place—the process whereby *sub-national* governments selectively adopt measures of liberalization and protectionism rather than wholly adopting liberalizing measures imposed by the WTO on the Central government.

²⁶⁶ Aseema Sinha, “Rethinking the Developmental State Model: Divided Leviathan and Subnational Comparisons in India,” in *Politics of Modern South Asia*, ed. Subrata K. Mitra (London, New York: Routledge, 2009).

Table 7.1: Mode of Liberalization

Types of liberalization	Controlled liberalization	Fragmented liberalization	Full liberalization
Main actors	Central government	Regional government	Private businesses
Institutional conditions	100% government owned	50% government owned	Fully privatized
Participation of MNCs	Limited participation	JV partners	Wholly owned enterprises
Industrial sectors	Aviation; Wind turbines; High speed railway	Automotive; Telecom service; Banking (insurance)	Textiles; Electronics

This study also reveals the impact of external actors on developing corporate and economic governance in the host region and the way sub-national entities interact with the governments at various levels through FDI flows. When the government regulation constrains two of the most important strategies for MNCs— entry mode and entry timing, what other operational strategies are available for global automakers? Are they transporting their existing assembler and supplier relationship, or developing hybrid forms depending on the institutional context of the foreign country? By tracing the interaction between the foreign partner and the Chinese partner within a JV partnership, this study reveals how different institutional factors impact the strategies of MNCs. The control of ownership and entry timing for the global auto companies highlights the advantages, if any, of being an earlier versus later entrant. Some scholars argue that early movers can achieve higher performance by benefiting from technological leadership, preemptive possession of scarce assets, and the establishment of entry barriers for latecomers.²⁶⁷ Others point out possible disadvantages of early movers, such as forfeiting better opportunities that may surface later or contracting for inadequate resources—both of which create junk costs.²⁶⁸ The performance of JVs in China has produced mixed results at best in this regard: the three earliest entrants followed three different routes. Shanghai Volkswagen has been the most successful JV since 1985, while Peugeot exited the Chinese market in 1997 due to a huge economic loss. I especially investigate how different foreign automakers embed themselves into the given industrial structures and local institutions as seen in the cases of Toyota’s pre-clusterization vis-à-vis Hyundai’s follow-the-flag strategies. This in turn sheds light on whether foreign partner of different national origins attempt to externalize their own intra-firm networks, inter-firm

²⁶⁷ Roger A Kerin, P.Rajan Varadarajan, and Robert A Peterson, “First-Mover Advantage: a Synthesis, Conceptual Framework, and Research Propositions,” *Journal of Marketing* 56, no. 4 (1992): 33–52. Yadong Luo and Mike W Peng, “First Mover Advantages in Investing in Transitional Economies,” *Thunderbird International Business Review* 40, no. 2 (1998): 141–163. Robert E. Hoskisson, Lorraine Eden, Chung Ming Lau, and Mike Wright, “Strategy in Emerging Economies,” *Academy Of Management Journal* 43, no. 3 (2000): 249–267. Andrew Delios and Witold J. Henisz, “Political Hazards and the Sequence of Entry by Japanese Firms,” *Journal of International Business Studies* 34, no. 3 (2003): 227–41. Mike Wright, et al., “Strategy Research in Emerging Economies: Challenging the Conventional Wisdom,” *Journal of Management Studies* 42, no. 1 (2005): 1–33.

²⁶⁸ Marvin B Lieberman, and David B. Montgomery. “First-mover (dis)advantages: Retrospective and Link with the Resource-based View,” *Strategic Management Journal* 19, no.. 2 (1998): 1111–1125

relationships, and state-industry relations across national borders, or the so-called home country effects.

In emerging economies such as China, the central authority relies heavily on ownership regulation as a way to control the flow of FDI and protect local industry. In China, other sectors such as mobile service and life insurance have phased-out JV regulations. For mobile services, foreign companies have to hold up to 49 percent of JV ownership for the first five years while up to 50 percent of ownership for life insurance sector. In sectors without government regulations on ownership, forming a JV is one of the most widely used corporate strategies for MNCs in expanding operations into emerging economies. This is to penetrate the local networks, gain market information and adjust to a new political and business climate.²⁶⁹ As such, the cooperation and competition between the Chinese local economic actors backed by local governments and foreign businesses are not entirely unique story to the automotive sectors.

Third, my work sheds light on the on-going debate of China's mode of integration into the global economy. Steinfeld argues that Chinese firms are integrating extensively with the global economy yet shallowly with the labor-intensive manufacturers including simple assembling.²⁷⁰ Gu even states that "China as a whole has not moved to the stage of being able to create distinctively specialized competitiveness in the international market beyond labor-intensive manufacturers."²⁷¹ On the other hand, Thun suggests that Chinese domestic companies and MNCs are "fight[ing] for the middle" whereby domestic firms endeavor to upgrade their industrial capacity to escape the intense competition at the bottom while MNCs seek to decrease costs in order to capture the rapidly growing markets.²⁷² In this work, I specifically show how those efforts on both SOEs and MNCs to fight for the middle play out differently and facilitate different types of supply network.

Lastly, it would also be interested in looking at the efforts and the impact of China's economic actors going global. From the onset of SOE reform, the Chinese Central government endeavored to make SOEs as the main driver of globalization instead of fully privatizing it. While privatizing small sized SOEs, the Chinese Central and local governments protected bigger size SOEs. They were not only the actors of competing in the Chinese market, and some of them are becoming competitive with Chinese state sponsorship. Since 2003, the Chinese Central government has not only officially encouraged outward FDI to other developing countries through its "Go Global" policy, but has also funded this investment with the largest foreign exchange reserves in the world. Aiming to acquire raw materials and new technology, China's SOEs and government-administered agencies also contribute 70 to 80 percent of its annual outgoing investment. Most of them flood into investing in natural resources and infrastructures in Latin America, Africa, Southeast Asia and Central Asia. The remaining 30 percent of

²⁶⁹ For example, KFC throughout China's 280 cities maintains a JV or wholly owned operation depending on the needs of the company.

²⁷⁰ Edward Steinfeld, "China's Shallow Integration: Networked Production and the New Challenges for Late Industrialization," *World Development* 32, no. 11 (2004): 1971–1987

²⁷¹ Gu, "Transformation and Recombination Learning," 14. Gu, "China's Industrial Technology."

²⁷² Eric Thun and Loren Brandt, *The Fight for the Middle*.

China's outgoing FDI comes from private companies who are mostly driven by the fact that moving cross nationally is cheaper than moving cross regionally in China due to the fragmented market structure. Owing to the WTO's entry, China also gained tremendous access to the global market. So what will happen if Chinese national champions of SOEs and private companies become globally competitive and capture the world market? I think these questions are important 1) to understand the long lasting impact of Chinese developmental strategies for the global economy and the international institutions, 2) to analyze the geopolitical implications of China's outgoing FDI with respect to such non-traditional security issues as energy security and resource diplomacy. To briefly illustrate, Chinese FDI and Overseas Development Assistance caught up to that of Japan while Japan was suffering economic stagnation for the past two decades. Chinese and Indian FDI in Africa are also different, with India's private sector-driven FDI demonstrating different dynamics from SOE-driven Chinese FDI. As an example, India's Bharti Airtel successfully transferred its innovation model to Africa to become the second-largest mobile operator in Africa while China Mobile failed to do so. The Bharti Airtel story is being repeated in other sectors of Africa's economy such as autos (India's Tata Motors), steel (India's Essar Group), and agriculture (India's Karuturi Global—the world's largest rose producer), which provide fertile grounds for further case studies.

IMPLICATIONS: "SUB-NATIONAL" STATE CAPITALISM

I have argued that defining the relationship between state institutions and economic growth has been a perennial quest in social science and that the rise of China provides a new opportunity to evaluate late development and the role of states at various levels. All governments play some role in economic growth, but differ over how and when to intervene. Market centric classical and neoclassical perspective views state as a neutral night watchman,²⁷³ the Keynesian school emphasizes an active purposive role in spurring demand (state policies) to jumpstart economic growth and Karl Polanyi highlights how the market is created and managed by the political action.²⁷⁴ More than a century ago, Alexander Gerschenkron discussed the vital role of a strong state to jump start economic development and catch up the earlier developers.²⁷⁵ However, such advice needs to be tweaked for the contemporary emerging economies attempting to develop their economy in a globalized and interdependent world. It is not just about the timing of the development but the scale and institutional structure of the national economy.

In recent months, heated debates among scholars and policy analysts revolve around the rise of state capitalism as a challenge and even an alternative to market-based capitalism. State capitalism is a form of capitalism where the state actively intervenes in the market to advantage its economic actors (both SOEs and private), and acts as a gate keeper between the domestic and the international economy to ensure the foreign investors and foreign economic factors contribute to the domestic economic

²⁷³ Adam Smith, *The Wealth of Nation* (Amherst, NY: Prometheus Books, 1991).

²⁷⁴ Karl Polanyi, *The Great Transformation* (Boston, MA: Beacon Press, 1944).

²⁷⁵ Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (Cambridge, MA: Belknap Press, 1962).

development. State capitalism has also been successful at producing national champions that can compete globally. Two-thirds of emerging-market companies that made it onto the Fortune 500 list are state-owned. Governments can provide companies with the resources that they need to reach global markets. In China, the government is the biggest shareholder in the country's 150 biggest companies and guides thousands more. China's 121 biggest SOEs, for example, saw their total assets increase from \$360 billion in 2002 to \$2.9 trillion in 2010 (though their share of GDP has declined). In 2009 some 85 percent of China's \$1.4 trillion in bank loans went to state companies. Authoritarian governments including China and Russia know that only capitalism can generate the long-term growth that can sustain their political survival, but they want to ensure that the state controls as much as possible of the wealth that markets generate. Backed by the state, SOEs have greater advantages that will begin to see foreign partners as commercial rivals.

There are numerous historical examples of strong state involvement in the economy, among them, Germany in the 1870s, France's *dirigisme* and Japan in the 1950s. But never before has it operated on such a scale and with such sophisticated tools as China's state capitalism exhibits. I argue that what recent debates on the state capitalism miss, is industrial policy at the sub-national level, and the possibility that MNCs serve as a force for protectionism. As I illustrated in this dissertation, in a decentralized economy like China, sub-national governments play a gatekeeper role and SOEs are the nodes between the global and local economic forces. The local structures governing certain industry and their partnership with varying FDI significantly determine the ability of the locality in creating local-global linkages through either relying on the foreign partners or nudging them to educate the Chinese side with long-term investments. As a recent example, pressured by the Shanghai Municipal government, General Motors decided to move its electronic vehicle production platform of the Chevy Volt to China in January 2012.²⁷⁶ While GM benefited greatly from the rescue package by the US government, GM is selling more cars in China than in the US. In 2009, while GM was sliding into bankruptcy reorganization in 2009, it sold the 1 percent stake for \$84.5 million to SAIC and gave SAIC majority control of the venture.²⁷⁷ GM's relocation of its electronic vehicle platform is a disappointment for the U.S. who had hoped for GM to create green jobs in the country, yet, for GM, it is a rational choice from not only local political but also from business perspectives.

Lastly, I challenge some of the existing assumptions in the literature that globalization has put the nation state into a straightjacket and restricts the state's room to maneuver. Instead, I show that the state can still influence an economy's competitiveness, and that both developed and developing states seek the benefits of multilateralism to pursue their economic development and industrial upgrading. Moreover, sub-national governments are also important players in this dynamic. China's use of FDI and its compliance with the WTO thus provides an opportunity and need to consider the

²⁷⁶ "GM to Build Electric Cars in China, Protect Chevy Volt Technology," *Fox News*, September 20, 2011.

²⁷⁷ "GM Seeks Sway in China," *The Wall Street Journal*, April 19, 2012.

‘varieties of sub-national capitalism’ within one country and the rise of ‘sub-national state capitalism’.

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