

Is an Industrial Policy Possible in China?: The Case of the Automobile Industry

Jong-Hak Eun*
Keun Lee

This paper first defines industrial policy as 'entry control' and 'capacity reorganization', and then evaluates the effectiveness of industrial policy in the automobile sector in China. It argues that the industrial policies declared in '87 and '94 in China were not implemented successfully enough to control new entries nor to reorganize capacity among the incumbent companies. Consequently, the industrial organization of the automobile sector was highly fragmented.

Concerning the cause of entry control failure, this paper examines the incentive structure of Chinese local governments that exercised de facto property rights over the companies in their jurisdiction throughout the reform period. It shows that local governments have strong incentives to ward off the central government's entry control, and that local governments were strong enough to resist the center's order, backed up by their fiscal and administrative capacity. To explain the causes of capacity reorganization failure, this paper looks at the cases of the First Auto Works group's M&A's, and argues that these M&A's did not lead to effective capacity reorganization within the group.

The paper concludes that industrial policy has failed in China, and that the central government finds it difficult to conduct effective industrial policy given the strength of local governments. The recent and future development of the Chinese automobile industry seems to be driven by market forces rather than by discretionary industrial policy.

Keywords: industrial policy, automobiles, entry control, capacity reorganization, M&A, China, local government, The First Auto Works.

1. INTRODUCTION

When the Chinese government declared an "industrial policy" in the late 1980s for the first time in its history, it was perceived to be an emulation of the so-called "East Asian Model" of economic development. Rapid economic growth in East Asia has been perceived as a result of, at least in part, industrial policy, as well studied in such books as *MITI and the Japanese Miracle*, and *The East Asian Miracle: Economic Growth and Public Policy*.¹ In 1994 the Chinese government revised the initial version of its industrial policy, thereby reiterating its will to move forward with this plan.

However, since the Asian financial crisis in 1997, the environment has changed as the danger of the East Asian model has been noted. Within this background, some scholars have begun to raise the possibility that China is not following the Japan-Korea style East Asian Model. For instance, Lee, Hahn, and Lin (2002) argue that China might leapfrog the East Asian model and evolve directly toward a more open and market-oriented economic system, which is closer to the Anglo-Saxon model than to the Japanese-Korean model. They have come to this conclusion by comparing China and East Asian countries in terms

* First Author. The authors thank an anonymous referee for providing useful comments for revision.

¹ World Bank (1993: 20-21, 79-102) observes that "sector specific industrial policies" contributed to the economic growth in those countries, and that Japan's heavy industry promotion policies of the 1950s and the subsequent imitation of these policies in Korea as successful cases.

of corporate governance, the bank-firm relationship, labor market conditions, product market conditions, and industrial policy. Especially, they hinted that China would find it difficult to implement industrial policy given strong inter-regional power politics and the more open nature of the economy.

This paper takes up this issue further by asking the following questions, such as whether China has actually implemented the Japanese or Korean-style industrial policy, and if so, what were its consequences and how should we interpret the process. To answer these questions, this paper focuses on the automobile industry in China to examine “entry control” and “capacity reorganization”, both of which are critical elements of the Japanese and Korean-style industrial policy. The automobile industry has been chosen for the following reasons. First, the automobile industry has been regarded as a pillar of industry since the very beginning of industrial policy in China in the late 1980s. Second, the automobile industry was also a major target for industrial policies in Japan and Korea, thus allowing for comparative analyses.

We will argue that China did try to imitate the Japanese or Korean style industrial policy, however industrial policy in China was not successful due to the unique central-local government relationship.

In what follows, section two defines the two main elements of industrial policy as the exercise of entry control and capacity reorganization by the government. Section three provides an overview of the history of Chinese automobile industry. It also investigates the main features of the 1987 and 1994 industrial policies in the automobile sector. Section four, the main part, discusses what the major obstacles were to implementing effective industrial policy in China. This part will show that industrial policies failed in terms of entry control and capacity reorganization. The causes of the failure are examined by referring to theoretical analysis, empirical data, and interviews with a local government official. Finally, a summary and concluding remarks follow.

2. DEFINING INDUSTRIAL POLICY

To discuss industrial policy in China, we must first define industrial policy. Often the term “industrial policy” is used without a clear and rigorous explication of its meaning, and this term is used to cover a wide variety of objectives and policy measures. This study will focus on the following two aspects. First, the industrial policy discussed here will be limited to the policy that is initiated by the central government with the intent of promoting a specific industry. Secondly, recognizing the critical role of the Korean government in achieving the scale economy of individual firms in the early stages of development by restricting the number of firms in an industry, we will focus on the central government’s capability to manipulate intra-industry resources (See Choi and Lee 1990).² In other words, we will concentrate on intra-industry policy (especially industrial organization policy) rather than inter-industry policy. The typical tools of the former are giving selective licenses for new entries and encouraging M&A, cartels, and specialization among existing firms.

In short, we will regard the central government’s capability to control new entries and

² Until recently, the Korean government has exerted entry control authority at least in the automobile industry, as we can see in the case of Samsung’s entry into automobiles in the mid 1990s. Even though new entry into automobile industry was, at least in law, completely liberalized in 1989, the government still had the power. In this way the number of Korean automobile firms was strictly controlled over 3 decades. There were 2 passenger car producers in 1969, 3 from 1970 ~ 1981, 2 from 1982 ~ 1986, and 3 from 1987 ~ 1993 (See Ryu 1994: 60, 64).

to reorganize capacity among incumbent corporations in a specific industry as critical factors of an industrial policy. Entry control and capacity reorganization can have the effect of reducing the number of firms in an industry.³ Both are important in that they can help individual corporations achieve 'economies of scale' which is particularly critical in industries producing standardized products in large quantities, as in the automobile industry. Furthermore, this limiting ability of the government can eliminate redundant investments.

Admittedly, not only the restrictions on the number of corporations, but also a series of preferential policies, such as tax exemption, low interest rates, and subsidies, play important roles in industry promotion. But they cannot be successful without a control over the number of recipients (corporations). Without this, there will be too many applicants for preferential treatment and the effects of preferential treatment will be severely diminished (Chung 1998). In other words, if the entries are not controlled, quasi-rents that come from access to selective preferential policy disappear. This way, no firm will achieve a scale economy within a short period of time. These sorts of phenomena are easily found in the recent history of the Chinese auto industry. Allegedly there have been four "auto booms" in socialist China (1st in the late 1950s, 2nd in the early 1970s, 3rd in the mid 1980s, 4th in the early 1990s) (Lo 1992: 29-31). In each boom, a large number of localities responded to the central government's signal (to promote the auto industry) spontaneously, and as a result, the number of firms suddenly increased (Chen 1995: 55-56; Byrd 1992: 373).

Now we will discuss from the viewpoint of economic theory the economic gains from entry control and capacity reorganization to show their critical roles in industrial policy. The guiding concept of restricting new entries for a given industry and reorganizing capacity by forming cartels or facilitating M&A's within an industry is the elimination of excess competition. The concept of 'excess or excessive competition' is defined by Bain (1968) as a condition in which, in an unconcentrated industry with the majority of firms showing very little profit or even operating at a loss, the transfer of productive resources (principally labor) to other uses and exits by constituent firms is not rapid, so that low profitability or losses continue for a long time. Suzumura and Kiyono (1987: 157-167) and Komiya (1988: 248) examine the concept more theoretically. They believe that it is possible for measures taken to stimulate competition in order to create an inefficient equilibrium. So they operationally define excess competition as 'the phenomenon in which the equilibrium number of firms exceeds the desirable number of firms that maximizes total social surplus'. They analyze the relationship between competition and economic welfare in a concentrated⁴, *Cournot-Nash* oligopolistic industry with a homogeneous product. In this setting, each firm is assumed to behave in a *Cournot-Nash* fashion. They also assume that the government can regulate entry into the industry, but cannot enforce marginal-cost pricing for each firm. Within this setting, they show that the number of firms (the equilibrium number of firms), (arrived at naturally) operating in an industry in the long run exceeds the number of firms (the desirable number of firms) that will maximize total social surplus (the sum of consumers' and producers' surplus) (Komiya 1988: 248-249).

An important implication of the analyses illustrated above is that the very existence of excess competition legitimizes the government's entry control and capacity reorganization.

³ Capacity reorganization does not directly affect the nominal number of incumbent firms in an industry. But it virtually reduces the number of firms because reorganization has the effect of differentiating firms in their products.

⁴ Bain's discussion of excessive competition was in terms of an unconcentrated industry. However, the symptoms referred by Bain can also be found when an industry is oligopolistic (See Komiya 1988: 65).

Without them, excess competition would encroach upon the social surplus, or economic welfare. Furthermore, from the standpoint of individual firms, it would be much harder to achieve economies of scale. This is why this paper places special emphasis on this aspect of industrial policy.

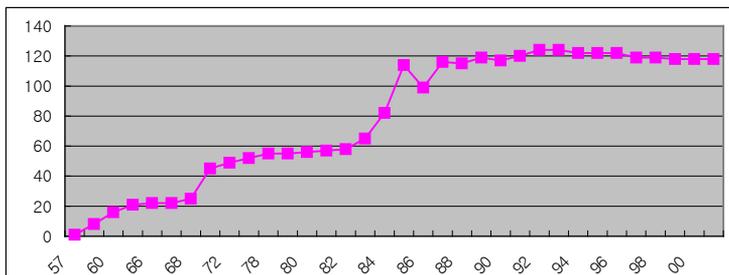
3. EVOLUTION OF THE AUTOMOBILE INDUSTRY AND INDUSTRIAL POLICY IN CHINA

3.1. Pre-reform Period

With the outbreak of the Cold War, the newly established communist government thought that China needed its own automobile industry to enhance military mobility. Since then, the Chinese have moved quickly. In 1950, they approached the USSR for help in planning an auto factory and Soviet experts arrived in Beijing to offer advice. With assistance from the USSR, the First Automotive Works (FAW) opened in 1956 in Changchun and was soon followed by automotive ventures in Nanjing, Shanghai, and other cities.

As relations with the Soviet Union deteriorated in the early 1960s, the Chinese leaders worried about the susceptibility of the country's largest vehicle plant in Changchun to foreign attack. Therefore, in 1965, the government approved the creation of the Second Automotive Works (SAW), and went on to build new truck factories in relatively isolated mountainous inland regions (the so-called "Third Front Construction"). The spirit of geographical self-sufficiency led to a spiraling growth in the number of automotive manufacturers spread around the nation, and nearly every province (including remote Qinghai) came to boast an automotive plant. We can see a jump in number of firms during the late 1960s (See Figure 1). However, the development of the auto industry during the so-called "Cultural Revolution" (1966~1976) proceeded in the direction of quantitative growth at the expense of qualitative improvement (Lo 1992: 16). Of some fifty factories capable of the serial production of cars, however, only four were reported to be able to manufacture more than 10,000 units per year during most of the '70s.⁵ Some plants produced only a few thousand or a few hundred vehicles annually, resulting in significant dis-economies of scale in many geographical areas.

Figure 1. Growth in Number of Vehicle Manufacturing Factories



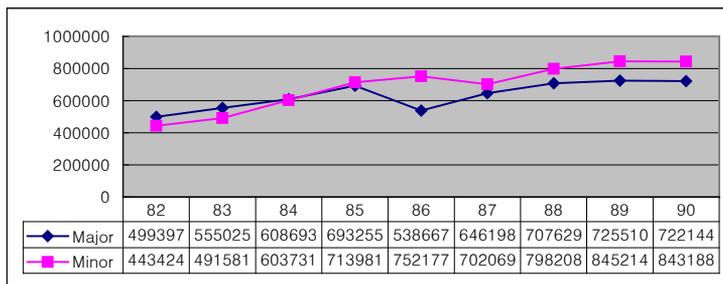
Source: *China Automobile Industry Yearbook* (1996, 1999 and 2001), *Zhongguo Jingji Shibao* (9 July, 2002).

⁵ The total output volume were 135,200 vehicles at the end of 1976 (Lo 1992: 16).

3.2. The Reform period

With the reform that came after the late 1970s, there was a relaxation of the central government's control over the economic activities of localities. It might have been envisaged that the reduction of central government intervention would help form an efficient market system. In reality, however, things went in a somewhat different direction. Using the administrative powers obtained through decentralization, local governments set up various forms of interregional trade barriers to stop the export/import of materials to/from other regions. A large amount of anecdotal evidence was found in newspapers during the 1980s, among which the terms 'silk war', and 'grain war', etc could be found (Ma 1997: 137-142). And this kind of "local protectionism" reinforced the self-reliance of localities, which is a legacy of the Mao years. Also in the automobile industry, we can see that the number of auto firms skyrocketed during the period from 1982~1985 (see Figure 1).

Figure 2. Number of Employees by Groups of Provinces



Note: (i) Group 1: Beijing, Tianjin, Shanghai, Jilin, Hubei, Guangdong Liaoning, Jiangxi. (ii) Group 2: The rest provinces.

Source: *China Automotive Industry Yearbook* (1991: 134).

More importantly, a lot of the new enterprises erected during this period were small firms (Lo 1992: 20). Furthermore, they were located in relatively underdeveloped (in terms of the automobile industry) regions possibly under the sponsorship of the local governments. We can configure these facts by comparing the number of employees in major and minor (in terms of the automobile industry) provinces during the 1980s (See Figure 2). For this, we categorized Beijing, Tianjin, Shanghai, Jilin, Hubei, Guangdong (these six are the host provinces of the 6 major carmakers, which have been designated as such by the central government – see Table 1), Liaoning and Jiangxi as "Major" provinces,⁶ and the rest of provinces as "Minor" provinces. As shown in Figure 2, the number of employees in minor provinces surpassed that of the major provinces in 1984, and this change has remained un-reversed through the 1980s and 1990s.⁷ This phenomenon, at least

⁶ These two provinces (with Shanghai, Beijing, Tianjin, Hubei, Jilin) are officially considered to have "comparative advantage" in automobile industry by the government (see Table 3).

⁷ Furthermore, until recently, this situation has not been changed. In 1998, while 1,063,320

indirectly, indicates that small auto firms proliferated during the 1980s.

The mid 1980s auto boom was, in part, a result of the infamous “Hainan Island Vehicle Binge” (See Harwit 1995: 29)⁸. After the government cooled down the import fever, each locality sought self-production capability for passenger cars, which resulted in the proliferation of auto firms all around the country. Even though the situation seemed alleviated in 1986 by the nationwide economic stagnation, soon it became clear that the macroeconomic retrenchment could not fundamentally improve the industrial organization (See the renewed increase right after the '86 stagnation in Figure 1). Furthermore, although the government adopted an industrial policy (this will be discussed more later in this chapter) in 1987 and revised it in 1994, in order to alleviate the fragmentation and miniaturization of the auto industry, there has not been much of an improvement in terms of the number of auto firms (See Figure 1).

On the contrary, the measures liberalizing foreign technology import reinforced the upward spiral of local auto firms. Lo (1997: 182) argues that the round of growth during 1992~1994 has given rise to the proliferation of small-scale projects, mostly assembly plants which rely heavily on the foreign supply of parts and components. As of 1998, the Chinese automotive industry was composed of around 2,426 manufacturers, including 115 assembly plants, of which only Shanghai VW has an annual output volume exceeding 200,000 vehicles and another six exceeding 100,000 (*China Automotive Industry Yearbook* 1999: 261, 271).⁹ As a result, China has become a country that has more than a half of all the auto firms operating in the world.

3.3. Industrial Policy in 1987

Since the mid 1980s, the Chinese government has paid special attention to “industrial policy,” which had often been regarded as the secret of Japanese and East Asian economic growth. The Chinese government promulgated an industrial policy in 1987 for the first time in its history.¹⁰ This can be interpreted as a big turn-around in the development strategy pursued by the Chinese government. From the late 1970s (the beginning of reform and open door policy) to the year 1987, one of the most salient features of Chinese development strategy was widely admitted to be “decentralization.” However, the 1987 implementation of industrial policy indicated that the central government’s role in reallocating economic resources would be strengthened and weighed against that of local governments.

There were several reasons for the central government to reconsider the past decade’s (1978~1988) decentralization strategy. First of all, in the late '80s, there was a severe bottleneck between light and heavy industry. While localities were indulging in promoting

people are employed in automotive industry in the “minor” provinces, only 899,517 people are employed in the same sector in the major provinces.

⁸ In 1984, the island was exempted from a 260 percent import duty imposed on the rest of the country. Hainan officials took advantage of the lenient rule to import tens of thousands of cars and other vehicles and resold the automobiles at premiums of three to five times the purchase cost to other mainland provinces.

⁹ 200,000 units per year is often regarded as the “Minimum Efficient Scale (MES)” in automobile industry.

¹⁰ The term, *industrial policy* (*Chanye Zhengce*) was first officially used in “Decision on the Gist of Current Industrial Policy” issued by the State Council in 1989. Thus, some scholars regard the first year of industrial policy in China as 1989. However, in case of automobile industry, most policy measures included in '89's Decision had been approved and begun to be implemented with the issuance of “Gist on the development of automobile industry” in 1987.

light industry, there was little investment in heavy industry and infrastructure, which led to the deterioration of China's developing potential. Therefore, the central government felt it necessary to address the problem of uneven development and eventually initiated an industrial policy. Secondly, increasing regional disparity was another contributing reason to the government's drive toward the initiation of an industrial policy. Thirdly, the economic success of Japan and East Asian NIEs also influenced the Chinese decision to adopt an industrial policy. In fact, China often referred to the Japanese and Korean experiences in drawing up their own industrial policy (Jiang 1996: 44).

As described above, the first official declaration of industrial policy was aimed at meeting various socioeconomic needs and addressing the problems that emerged during the initial decade of the reform and open door period.

A critical element of the 1987 industrial policy was the stipulation restricting the number of auto firms. Especially for passenger cars, the number of manufacturers is restricted to six – the 'large three plus small three', the former referring to the three Sino-foreign joint ventures of Shanghai Volkswagen, First Auto Works Volkswagen, (FAW-VW) and Second Auto Works Citroen (SAW-Citroen). The latter three designate the two joint ventures of Beijing Jeep (which involves Chrysler) and Guangzhou Peugeot, plus Tianjin Minibus which produces Daihatsu-designed cars under license. These enterprises would form the backbone of the industry.

Despite the central authorities' efforts, however, the implementation of the 1987 auto industrial policy did not result in any marked achievement. The share of passenger cars in total car production indeed increased from 5.69% in 1988 to 8.33% in 1990, and again to 15.33% in 1992 (*Market Prospects for the Chinese Automobile Industry* 1998: 378). However, achievement in terms of concentration and technology transfer was disappointing. The concentration ratio of the Chinese auto industry was far below that of other countries (See Table 2). Technical progress has also remained sluggish. Despite the auto booms occurring between 1986~1988 and 1992~1994, enterprises had a tendency to invest in capacity expansion – for the purpose of reaping short-term profits from the buoyant sales – instead of technological upgrades (Lo 1997: 182).

Table 1. Large-three and Small-three Auto Companies

		Name of Company	Location	Foreign Partner	Product
PASSE- NGER CAR	LARGE	FAW	Jilin	Volkswagen (German)	Audi 100, Jetta, Gold
		Shanghai VW	Shanghai	Volkswagen (German)	Santana
		Dongfeng Motor	Hubei	Peugeot (France)	Citroen ZX
	SMALL	Beijing Automotive	Beijing	Chrysler (US)	Cherokee
		Tianjin Automotive	Tianjin	Daihatsu (Japan)	Charade
		Guangzhou Automotive	Guangdong	Peugeot (France)	Peugeot 505

Source: [The Korea Development Bank \(1996: 238\)](#).

Moreover, in addition to the designated six, there have emerged another four – Chang’an, Guizhou¹¹, Hunan-Jiangan, and Liuzhou, all sourcing technology from Japan – which established themselves first and pressed the state leadership to grant approvals.¹²

Table 2. Concentration Ratio (%) in Auto industry (1992)

	China	Korea	Japan	US	German
C1	13.1	49.7	31.5	38.6	41.4
C2	26.0	78.7	48.4	67.8	62.3
C3	32.1	89.1	59.6	81.0	75.5
C4	37.4	92.0	69.8	85.6	87.5

Note: C#: Accumulated market share of top # firms in the auto industry.

Source: *China Automotive Industry Yearbook* (1993).

The disappointing results of the '87 industrial policy were, in part, due to institutional un-preparedness. The Chinese central government had not grasped the fact that the auto industry development plan must be implemented within a management framework that has sufficient state involvement. On the contrary, the Chinese government disbanded the relevant administrative body, the China National Automotive Industry Corporation (CNAIC), and replaced it with the China National Automotive Industry Association (CNAIA) that was a mere coordinating body with no managing power.

3.4. Industrial Policy in 1994

Before China concluded the eighth Five-Year Plan, the State Council promulgated “The Outline of State Industrial Policy in the 1990s” in June 1994. A remarkable point in the “Outline” was its announcement of an “industrial organization policy” (*Chanye Zuzhi Zhengce*, 產業組織政策). This policy aims to promote “rational competition”, reap economies of scale, and exploit coordinative specialization (Lu and Tang 1997: 78).

Based on the “Outline”, the State Planning Commission has drafted sector-specific industrial policies for automobiles, telecommunications, transportation, construction, electronics, machinery, petroleum processing and chemical material production. Also in the automobile industry, the Chinese government has promulgated an industrial policy concentrating on industrial organization, as is illustrated in Table 3. Accordingly, the 1994 industrial policy stipulates that the central government is to support the development of a few ‘national champions’. In other words, “rationalizing” the production system was the most salient feature of the 1994 industrial policy. As far as rationalization of the production system is concerned, Lo (1997) points out the four phenomena in the early 1990s which emerged as major problems to be addressed. These are: (a) the proliferation of too many

¹¹ Legitimizing these two, the central government revised the original 3大3小政策 to 3大3小政策.

¹² In addition to the existing 3大3小微 companies, another auto-maker (Shanghai-GM) was approved in the late '90s.

plants and the fragmentation of investment, (b) the chaotic process of securing local and ministerial approval for projects, (c) the duplicated import of technologically backward projects, (d) the sluggish development of backbone enterprises and the slow progress in the local content of foreign-designed vehicles which these enterprises produce.

Table 3. 1994 Auto Sector Industrial Policy of China

<p>Objectives The state will promote the development of two of three large automotive groups, six or seven key auto plants and eight to ten major motorcycle plants. In the longer term, to 2010, the state will promote agglomeration among the enterprises, so that there would be three or four auto groups that are internationally competitive.</p> <p>Target Enterprises for Promotion The state will give special support to auto enterprises which, as of end-1995, meet one of the following criteria: - Annual production of at least 100,000 vehicles and sales of at least 80,000. - Annual production and sales of at least 20,000 heavy-duty vehicles. - Annual production of at least 1,500 large/medium buses, sales of at least 1,000.</p> <p>Policy Tools State support for companies meeting the above criteria and investing in priority projects will include fast-track approval for issuance of stocks and bonds, loan support from state banks including policy loans, access to overseas funds and greater freedom for finance company subsidiary of an auto enterprise.</p> <p>Others No new small-scale auto production plants will be approved. Foreign companies may not have more than one joint venture making the same type of vehicle.</p>

Source: *Government Policies on the Automotive Industry* (1994).

Therefore, corporate grouping and M&A's were encouraged to play a major role in achieving the goals (concerning the industrial organization) set out in the 1994 industrial policy. However, in reality, as we shall see in the next chapter, auto corporate grouping and M&A's were not successful. Actually, until recently, the problems of fragmentation and miniaturization in the auto industry have hardly been alleviated (See Table 4).

Table 4. Concentration Ratio of Chinese Auto Industry (%)

	1992	1995	1998
C1	13.1	12.1	14.4
C2	26.0	24.2	24.8
C3	32.1	35.9	34.3
C4	37.4	46.9	42.7

Source: *China Automotive Industry Yearbook* (1993, 1999: 271).

Admittedly, some scholars may disagree with the diagnosis of the 1994 industrial policy as an apparent “failure”. They argue that the 1994 industrial policy (and its external condition) is much better in policy design than the previous industrial policy, alluding to brighter prospects.

Table 5. Province’s Comparative Advantage in the Automobile Industry and the Number of Auto Firms (1998)

Province / City	CA	# Firms (total: 115)
Shanghai	○○○	●●
Zhejiang		●●●●●
Jiangsu		●●●●●●
Beijing	○○○○	●●●●●●●●●●
Tianjin	○○○○	●
Guangdong		●●●●●●
Fujian		●●●●
Liaoning	○○○○	●●●●●●●
Shandong		●●●●
Guangxi		●●
Sichuan		●●●●●●●●●●●●
Hubei	○○○○	●●●●●●●●●●
Hunan		●●●●●●●
Jilin	○○○○	●●●
Henan		●●●
Hebei		●●●●●
Anhui		●●●
Jiangxi	○	●●●●
Shaanxi		●●●●
Gansu		
Heilongjiang		●●
Guizhou		●●●
Shanxi		●●●●
Neimenggu		●
Ningxia		
Qinghai		●
Xinjiang		●●
Yunnan		●●●●●●
Hainan		●
Xijiang		

Notes: White circle stands for the provincial competitiveness (evaluated by the State Planning Commission) in the automobile industry. The number of white circles represents the strength of the competitiveness. The number of black circles indicates the number of auto companies. ‘Sichuan’ in the table includes Sichuan province (7 firms) and Chongqing municipality (6 firms).

Source: Shin and Kim (1996: 53-57), *China Automotive Industry Yearbook* (1999: 263).

While some studies recognized the “improvement” of the 1994 policy design, they did not pay enough attention to the possibility of local governments’ disobedience to the center’s specific policies.¹³ In fact, Chinese localities are still aspiring to have auto firms in their territories regardless of their comparative disadvantages. As shown in table 5, the State Planning Commission estimated that only a few provinces (or cities) have comparative advantages in the auto industry. However, according to the SPC, 22 out of 30 provinces (or cities) in China put down the auto industry as their pillar industry in their provincial level “9·5 (1996~2000) Plan” and “2010 Development Plan”. Furthermore, all the 13 provinces, subjects of a survey conducted by the SPC in 1997, already have complete sets of auto firms which range from auto parts plants to assembly lines (*China Industrial Development Report 1997*: 44) (See table 5).

Based on the discussion above, our view is that the industrial policy was not successful in terms of entry control and capacity reorganization. In what follows, we investigate the details and the reasons for the failure.

4. IMPLEMENTING INDUSTRIAL POLICY IN CHINA

Since the initiation of reform in the late 1970s, the economy remained decentralized up to the late 1980s as more and more economic decision-making rights were transferred from the central government to the local government or to enterprises. Local governments welcomed these policies. Thus, it can be said that the ready cooperation of local governments contributed to the success or reform policy of the 1980s (Oi 1992). However, in the course of decentralization, each local government came to have its own voice and to pursue actively its own economic interests. The birth of such sub-national, economically independent entities (local governments) was a significant change in the sense that the local governments’ incentive structure became an important variable for the effectiveness of the center’s policy. In other words, it became possible for local governments to resist the center’s orders in pursuit of their own economic interests. Thus, in assessing the effectiveness of industrial policy, of which a major characteristic is the reallocation of economic resources by the central government, we need to take into account the behavior of the local governments. We will do this in analyzing industrial policy in terms of entry control and capacity reorganization.

4.1. Failure to Control Entry

During the 1980s and 1990s, China had seen the number of automobile firms grow rather than decrease. Actually the numbers had increased from 99 in 1986 to 122 in 1996 (See figure 1). However, the central government did not want more automobile firms to enter the industry. Achieving economies of scale by limiting the number and expanding the size of auto firms was one of the main purposes of the industrial policy measures taken in 1987 and 1994. Then, we need to ask why entry control by the central government did not work in China.

One important reason for the failure to control entry was mentioned by a former local

¹³ For this kinds of studies, refer to Lo (1997), Harwit (1995) and Lee (1999). They stress following two facts. China National Automotive Industry Corporation (CNAIC), expected to function as a state-enterprise intermediary, was reinstated in 1990 (It had been rescinded in 1987). And the government body responsible for industrial policy was first stipulated in 94’s industrial policy.

cadre, Mr. Sun, who worked for a municipal government during the 1990s in D city as a member of the planning commission. He observed that although investment projects bigger than 50 million *renminbi* in terms of money value need the central government's approval, one big project can be split into several smaller projects and get the "go signal" from a local government (See Ma 1997: 134).¹⁴ For example, one big auto company can be erected without the central government's approval by being split into an engine producing company, frame producing company, and a painting company. This was how the central government's entry control failed in China. Cases in which localities ignored or nullified the center's entry control can be found without difficulty.

Then, what are the underlying causes for the disobedient behavior of the local governments? For example, why did local governments want to establish another petty and economically non-efficient auto plant in their territories? To answer this, we need to examine the incentive structure of local governments during the reform period.

Collection of local tax revenues from those companies should be one reason for local governments to approve more entries, as all provinces, except Ningxia, made positive profits from the automotive industry from 1983 to 1990 (*China Automotive Industry Yearbook* 1991: 158). Another reason for the local governments' leniency toward new local entries had to do with the fact that local government officials can appoint their relatives to high positions within these local firms, or move themselves to such positions after resigning from public service.

However, those monetary and non-monetary gains were not the only goal of the local governments, as some local governments did act not as "predators" on the enterprises but as "patrons" for them. In the case of the latter, the local governments embarked on a program for local industrial development, which can be interpreted as a kind of "local state corporatism" (Liew 1997; Oi 1995; Steinfeld 1998).

According to this perspective, because local governments have come to enjoy "control and cash-flow rights" over local assets, officials had a clear incentive to seek long-term expansion of those assets by starting new firms or by promoting existing firms. What the local governments did with those rights was to pursue industrial development, and the more secure the rights they enjoyed, the more aggressively they pursued growth. In other words, the local governments served as a kind of "company headquarters", coordinating the various component firms. In this context, this kind of a local government could be compared to the headquarters of "diversified conglomerates" (Steinfeld 1998). Some scholars, like Oi (1995), go further by arguing that the local governments in China played almost the same role that the Korean (central) government played for the country's economic success.

From the above discussion, it became clear that we need to take into account both cases – "predator type" and "patron type" local governments – to explain the central government's entry control failure from the standpoint of local governments' incentive structure. But, before analyzing those cases, it would be worthwhile to examine the backgrounds that the local governments' incentive structure has brought into the spotlight.

The local governments' incentive structures and these governments' behaviors did not matter before the decentralizing reforms. For instance, before the fiscal reform in the early 1980s, almost all government revenues were remitted to the center and the local

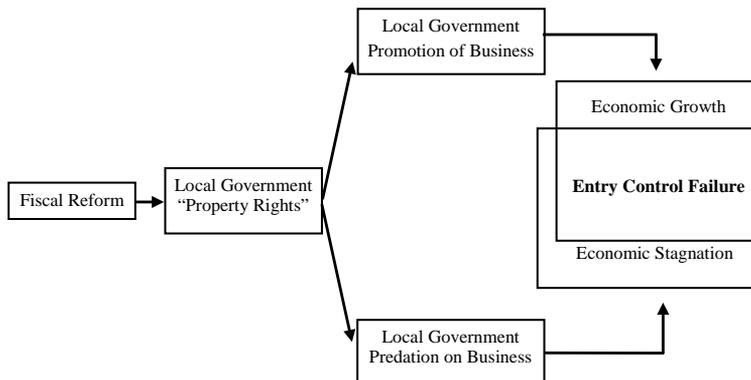
¹⁴ Investment projects with costs below 30 million yuan for technical innovation and 50 million yuan for basic construction were subject to the approval by local planning commissions. Those with costs above the thresholds are subject to approval from the State Planning Commission.

governments' expenditures were closely monitored and were dependent on the discretionary allocations of the central government (Kojima 1992: 333-334). So to speak, local governments acted solely as revenue collecting agencies for the central government before the fiscal reform. Thus there was little room for local governments to pursue "private benefits". Nor was it possible for local governments to promote local enterprises despite their virtuous intention. With fiscal reform, however, local governments came to collect revenues from enterprises "under their control", even though they still partially acted as collection agents for the central government (Wong 1991: 701). This changed the local governments' incentive structures and their actual behaviors. With more discretionary power, some local governments pursued more benefits by approving more new firms. Some local governments, which took a long-term perspective, assumed the role of "patron" for the development of local enterprises.

In both cases, the most critical change was the fact that the local governments gained "property rights" over the enterprises under their control. Even though local governments do not have the legal property rights of the firms, they have fiscal power that makes them the de facto owners. As Ma insists, under the fiscal revenue-sharing system, he who receives the taxes and revenue remittance from the firms is their actual "owner" (Ma 1997: 134).

Admittedly, there would be a big difference in terms of economic performance between the localities where the local governments' exploitation was dominant and those in which the local governments' promotion was dominant. In the former case, local economy mostly suffered from economic stagnation, while in the latter case, local economy enjoyed economic growth.¹⁵ However, in both cases there were almost the same consequences from the standpoint of entry control. In short, the center's attempts at entry control failed in both cases. (See figure 3).

Figure 3. General Scheme for Entry Control Failure



Source: Adapted from Steinfeld (1998: 236, 238).

¹⁵ For more detailed studies on the causal relation between the role of local government and the economic development of a region, see Cheung, Chung, and Lin, ed.(1998).

4.1.1. Strengthened Power of the Local Governments

In the above, we have seen what motivated local governments to approve new entries. However, the incentive structures of local governments cannot alone fully account for the central government's entry control failure. In other words, local governments' negative attitudes toward the center's policy is not the "sufficient condition" for the central government's policy failure. This is so because it is also possible that the central government enforce specific policies successfully despite opposition from local governments. Thus, whether the local governments were powerful enough to ward off the central government's order is an important issue to be addressed. This indicates that the distribution of (economic and political) power between the central and the local governments is another important variable in evaluating the feasibility of entry control. If the central government were strong enough, it would have been possible for the central government to control new entries despite the local governments' discontent. On the contrary, if the local governments were strong enough to nullify central government's policy, the central government's entry control was likely to fail.

Thus, below, we examine the power distribution between the central and the local governments. We will focus on the "fiscal relations" of the central and the local governments and the "ratio in amount of centrally controlled to locally controlled fixed asset investment", as indicators of the power distribution of the two.

As one result of the decentralizing fiscal reform in 1980s, the central government's fiscal position was significantly weakened. At the same time, local governments' fiscal positions were comparatively strengthened. The local governments' share of the total government budgetary revenue increased from 59.5% in 1984 to 78% in 1993 (*China Statistical yearbook* 1998: 281). The local governments' share of the total budgetary expenditure increased from 47.5% to 71.7% during the same period. This shift reflects the decentralization of taxation authority to the local governments as well as the increased local responsibility for public investment. Admittedly, the local governments' share plunged to 44.3% in 1994, due to the implementation of the new tax sharing formula (*Fenshuizhi*, 分税制) which was partly designed to redress the decline in the central government's revenue.

But the improvement of central government's fiscal power was a limited one. The reasons are as follows. First, the impact of the tax sharing formula didn't persist. After hitting bottom (44.3%) in 1994, the local governments' share of total budgetary revenue increased again to 47.8% in 1995, 50.6% in 1996, and 51.1% in 1997 (*China Statistical yearbook* 1998: 281).

Secondly, in order to win the support of the provinces for the new system, the center accepted compromises. The most important involves the center's promise to guarantee the revenue level of provinces, as compared to the base year 1993, and the adoption of the special transfer payment mechanism, termed a tax repayment (*Shuishou fanhuan*, 税收返還), to the provinces. As a result, the center could not wield the seemingly increased fiscal power fully at its own discretion. We can understand the situation more clearly by examining the sustained high local-share of total government expenditures even after 1994 (See Table 6).

Table 6. Local government share in the total government expenditure

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Local share (%)	67.8	68.7	71.7	69.7	70.8	72.9	72.6	71.0	68.5	65.2	69.4

Source: *China Statistical Yearbook* (2002: 272-272).

Thirdly, the achievement of post-1994 has to a large extent been artificially boosted by the diversion of a substantial stream of finance from extra budgetary funds¹⁶ to budgetary revenue, which represents only a notional improvement. Furthermore, the expansion of EBFs is little checked. EBFs continued to grow from 143.2 billion yuan (i.e. 30 percent of the budget) in 1993 to 384.2 billion yuan (the equivalent of 58.5 percent of the budget) in 1995 (*China Statistical Yearbook* 1998: 281).

Another indicator that shows the diminished (and hardly recovered) power of the center is the ratio of centrally-controlled projects to locally-controlled projects in the category of total fixed asset investments. The ratio was above 80% during the 1980s, but it decreased to 60.9% in 1995, and again to 47.9% in 2000 (*China Statistical Yearbook* 2002).

In sum, it can be said that the central government's fiscal power has weakened since the mid 1980s and this trend was not fundamentally reversed even after the adoption of the tax sharing system in 1994 (Zhang 1999: 139). In addition, the local governments' extended licensing rights in attracting foreign capital and technology played a certain role in spoiling the center's entry control at least in the automobile industry. When the central government grasped the tap of foreign capital and technology inflow, no local governments could establish an auto firm in their territories because they lacked money and technology. However, after the licensing right was decentralized, ushering in foreign capital and technology, each local government was able to have a high-tech industry in spite of their low level of technology and lack of capital accumulation. Those local governments' "bank-run" for the auto industry was more conspicuous in the area of assembly plants rather than parts plants, the latter requiring large scale investment and extended intervals of capital circulation.

4.2. Failure to Reorganize Capacity

As noted above, entry control is a policy tool that restricts the number of firms in an industry to avoid "excess competition" and to achieve "economies of scale". The salient aspect of entry control is that it is an *a priori* measure to achieve those goals.

On the other hand, there exists another important policy tool to achieve the same goals. That is "capacity reorganization." Capacity reorganization is different from entry control in that it is an *ex post facto* (after new firms entered a specific industry) policy tool. Actually, capacity reorganization is instituted through various policy measures such as government-initiated cartels, M&A's, product specialization, and industrial rationalization. All these measures are expected to resolve the problem of excess capacity and achieving economies of scale.

Among these measures we will focus on M&A's in the process of creating a 'Corporate Group (*Qiyue Jituan*)', because it was one of the most widely used policy tools.¹⁷ In China, formations of corporate groups were encouraged by the central government with a view to break administrative barriers and to promote resource reallocation among firms.¹⁸ As

¹⁶ Extra budgetary fund is obtained by the governmental units in localities and not included in the central government budget. The extra budgetary revenue includes revenue from various extra-charges, net income from profit-making services and firms, administrative charges and business charges, and so on.

¹⁷ Except for the 'closing down' (*Qiyue Pochan*) which is not yet frequent in China from the consideration of the unemployment problem.

¹⁸ The State Council's 'Interim Regulation of Promoting Economic Cooperation', 1980 (Quote from Ma 1997: 142).

mentioned above, the de facto ownership of SOEs by the local governments and local protectionism had tended to result in “duplicative investment” across provinces in similar projects. This caused duplication of investment (lack of specialization) and a small scale of enterprises (lack of economies of scale). To address these problems, the central government began promoting measures in 1980 to promote M&A’s and the formation of corporate groups.

However, the central government often faced opposition from the local governments. The nature of the problem was the same as in the case of entry control. Since local governments earn monetary and non-monetary gains from local firms,¹⁹ they resist M&A’s, which often entail the transfer of property rights from one local government to another, or alternately to the central government (Marukawa 1999).

To circumvent these difficulties, the central government adopted a so called, ‘three-no-change policy (*Sanbubian Zhengce*, 三不變 政策)’ in the mid ’80s (Ma 1997: 143). According to this policy, if one firm wants to join an enterprise group, there should be no change in the firm’s administrative supervisory agency, no change in the channel through which the firm remits its profits and taxes, and no change in the firm’s ownership. This policy was a compromise of the central government’s intention to break administrative barriers to industrial reorganization and the existing interests of the local governments.

Since a firms’ ownership was not transferable under the three-no-change policy, enterprise groups with tightly linked members through cross-share holding were rare. Member firms of a group used to be loosely linked and the relations between members were often based on management contracts, procurement-supply contracts, and technical assistance. Very few groups were financially consolidated, and management and production plans of most member firms were independent (Ma 1997: 143-144). The impossibility of ownership transfer greatly restricted the degree to which the groups could reallocate internal resources and achieve the goal of specialization and economies of scale.

Below, we will examine the limitations of M&A’s more concretely through the case of the First Auto Works (FAW).

4.2.1. The Case of the First Auto Works (FAW) Group

The First Automobile Works (FAW) was established in 1956 with technological assistance from the USSR. In December of 1982, it had established itself as an automobile-centered corporate group (FAW group) with 10 member enterprises. By 1998, the FAW group had evolved into one of the largest groups through a series of M&A’s.²⁰

Forming a corporate group through M&A’s of small factories scattered around the country can be interpreted as a means of “capacity reorganization” aiming to create efficient intra-firm resource allocation and to realize economies of scale. However, even after the M&A had occurred, there was little restructuring of the companies or subsidiaries. FAW dispatched only a few new top managers to the acquired subsidiaries with no middle class managers sent. The parent company did not take any decisive action to inject its strategy, management style, and know-how into the new subsidiaries (Marukawa 1998).

¹⁹ In 1990s, there arose quite a few loss-making auto companies from which local governments cannot extract a large amount of money. Even in this cases, local governments appeared to try not to close down the companies to prevent the increase of unemployment, which usually entails social instabilities.

²⁰ The group had 11 wholly owned subsidiaries, 18 majority-owned, 14 minority-owned subsidiaries, and more than 200 related enterprises with no ownership ties with it (*China Automotive Industry Yearbook* 1999: 84).

Such nominal or superficial reorganization of the subsidiaries and/or the management prevented the FAW group from resolving the problem of product duplication inside the group, hence no solution was found for the problem of “overcapacity”. The rates of operation in the one-ton and two-ton truck production lines in Harbin, Changchun and Jilin (all of which are member firms of the FAW group) were 70%, 60%, and 50% respectively in 1996. And the rate in Jinbei’s light-duty truck plant was only 27% in 1997. The problem of overcapacity is still aggravating, because Harbin is now doubling its capacity of two-ton trucks, and three other light-duty truck producers joined the FAW group (Marukawa 1999: 5).

Table 7. Redundant products of FAW group member firms

Name of member firm	Main Product
First Automobile Group Company (FAW, Headquarters)	6102 Gasoline engines, Automobile parts, Mid-sized trucks
FAW Car Co. Ltd.	488 Gasoline engines, Transmission for two-ton trucks, Hongqi and Audi
FAW-Volkswagen Automobiles	Engines, Jetta and Audi
FAW-Sichuan Co. Ltd.	Automobile parts, Special purpose vehicles
Harbin Light-duty Automobile Works	One-ton pickup trucks, Two-ton double-cab trucks
Changchun Light-duty automobile works	One-ton and Two-ton trucks, Chassis, Axles
Jilin Light-duty Automobile Works	One-ton trucks, One-box cars, Mini wagons
FAW-Jinbei Automobile Co.	One-ton, single and double-cab trucks, Two-ton, single and double-cab trucks, Three-ton trucks, 492 Gasoline Engines
FAW-Jinbei Automobile Industry Ltd.	Automobile parts
Hongta Yunnan Automobile	Two-ton trucks
Qingdao Automobile Works	Mini-sized cab-over trucks
Siping Special-purpose Automobile Works	Special-purpose vehicles
Dalian Diesel Engine Works	Diesel Engines
Xinjiang Automobile	Nine-ton trucks
Lingyuan Automobile	Mid-sized cab-over trucks
Wuhu FAW group Yangzi Automobile	Light-duty truck chassis
Dalian Bus works	Buses

Source: abstracted from Marukawa (1999: 16, table 2).

From Table 7, we can see that in light-duty trucks, gasoline engines, and special-purpose vehicles there are more than two member companies that produce similar or identical products.

In sum, the M&A's did not seem to have contributed to the group's economic performance. We can see this from the financial statements of the FAW group. Even though the assets of the group continuously expanded with through M&A, profits were on the downturn. This stands in contrast to the late 1990s when they had many M&A's (see Table 8). We can say that even without falling profits, the increases of assets associated with M&A should be partly responsible for this rapid downward trend of profitability from 3.5% in 1994 to 1.2% in 1997. Also, the annual production of vehicles per worker progressed very slowly during the last forty years: 1 vehicle per a worker in 1956 to 1.58 in 1997 (Marukawa 1999: 6).

Table 8. Financial Statements of FAW group (Billion yuan)

	1994	1995	1996	1997
Assets	27.7	31.8	49.2	61.3
Sales	23.0	25.8	30.2	35.5
Profit	0.98	0.92	0.71	0.75
Profit/asset	3.5%	2.9%	1.4%	1.2%

Source: Marukawa (1999).

5. SUMMARY AND CONCLUDING REMARKS

This paper has defined industrial policy as entry control and capacity reorganization, and used this definition to evaluate industrial policy, specifically the policy applied within the automobile industry in 1987 and 1994 in China. It has been shown that the Chinese central government unsuccessfully attempted to control new entries into the automobile industry and to reorganize capacity (mainly through facilitating M&A's) among the incumbent enterprises scattered all around the country. Concerning the causes of the failure, this paper has pointed out the incentive structure of local governments. The reform transformed local governments from obedient agencies of the central government to independent entities pursuing their own interests. In addition, the strengthened power of these local governments to ward off the center's orders and to interfere with the center's industrial policy also played a key role. Development of the FAW group and its disappointing results with M&A's were presented as evidence of this phenomenon. Thus, with some caveats against broad generalizations involving the comparison of the automobile industry to other industries in China, we would like to conclude that industrial policy in China was not effective.

More recent situations in Chinese automobile industry are also consistent with the observation in this paper. In other words, the recent changes in the automobile industry, even though they look complicated and actually need more careful observation, are largely

driven by market forces rather than by industrial policy. Several tentative pieces of evidences follow.

First, in October 2001, Chinese government eventually 'officially' allowed private carmakers (Geely, Zhonghua, Yueda for now) to produce passenger cars. These private carmakers have all been recently formed, but their growth rates have been higher than most state-owned carmakers. Moreover, they started to roll out passenger cars even before they were approved as passenger carmakers. Actually, before the Oct. 2001 approval, these private carmakers faced some uncertainty, despite their competitiveness, especially in cheap and small passenger cars. However, with the approval given in 2001, they have emerged with confidence to play a bigger role in the Chinese automobile industry.

Second, in recent years, Chinese carmakers eventually began to slash prices and thus ignited a price war among them.²¹ They seem to be following the pattern set by the consumer electronics companies, which have already experienced a series of price reductions since the mid 1990s. Car prices in China have been very high not only because of the lack of scale economy but also because of the defective market under the local protectionism. Thus, price reduction can be interpreted as an indicator of the strengthened role of the market. More importantly, the market pressure seems to drive some carmakers to seek strategic alliances with others (including foreign or other region's counterparts) for their own survival. The recent acquisition of Tianjin Automobile Xiali Co. by the First Auto Works Group is a prominent case. Allegedly, the small passenger carmaker Tianjin Auto recently confronted competitive pressure from some private carmakers like Geely, Yueda and this made Tianjin look to the FAW group. (*Nanfang Zhoumo* [12 April, 2002](#))

Third, government-sponsored research institutes and newspapers tend to stress the concept of 'comparative advantage', rather than the ambitious catch-up plan of their automobile industry. Recognizing their competitiveness in low-end cars (including small passenger cars and mini vans) and the changed circumstances attendant with the accession to the WTO, they began to insist on the reconsideration, or refocusing, of existing automobile industrial policy. One of the most often heard arguments is "to construct a competitive domestic base for low-grade cars, to extend cooperation with foreign partners for mid-grade cars, and to open wide the market for high-grade cars and accelerate technology learning" (*Zhongguo Jingji Shibao* [15 May, 2002](#)). Moreover, in this altered atmosphere, some foreign carmakers, which had withdrawn from the Chinese market in the past, have again resumed their business in China. This is further evidence of the loosened entry control.

In sum, the automobile industry in China seems to be reorganized more and more by market forces rather than by government policy. In this new environment, private and foreign actors are expected to play larger roles in this industry.

REFERENCES

- Bain, J. S., 1968, *Industrial Organization*, 2nd ed., New York: John Wiley & Sons Inc.
Byrd, William A., 1992, "The Second Motor Vehicle Manufacturing Plant," *Chinese Industrial Firms under Reform*, London: Oxford University Press.

²¹ Tianjin Auto cut as much as 20 percent off the prices of its Xiali cars on 12 Jan. Right after this, Chongqing Chang'an-Suzuki Corp. slashed its Antelope's price. Prices on models such as Citroen Fukang, Mazda Primacy and Red Flag were also cut a little bit earlier.

- Chen, Kang, 1995, *The Chinese Economy in Transition: Micro Changes and Macro Implications*, Singapore: Singapore University Press.
- Chinese Automotive Technology and Research Center, 1991, 1993, and 1999, [China Automotive Industry Yearbook](#) (in Chinese).
- _____, 1996, 1999 and 2001, [China Automobile Industry Yearbook](#).
- Choi, Kwang and Youngsae Lee, 1990, "The Role of the Korean Government in Industrialization," In Lee, Chung H. and Yamazawa Ippei, eds., *The Economic Development of Japan & Korea: a parallel with lessons*, London: Praeger.
- Chung, Jaeho, 1998, "Study of Provincial Politics and Development in the Post-Mao Reform Era: Issues, Approaches and Sources," In Cheung Peter, Chung Jaeho, and Lin Zhimin, eds., *Provincial Strategies of Economic Reform in Post-Mao China: Leadership, Politics and Implementation*, Armonk: M. E. Sharpe.
- Harwit, Eric, 1995, *China's Automobile Industry: Policies, Problems, and Prospects*, Armonk: M. E. Sharpe.
- Itoh, Motoshige, Kazuharu Kiyono, Masahiro Okuno, and Kotaro Suzumura, 1994, *Economic Analysis of Industrial Policy*, London: Academic Press Inc.
- Itoh, Fumio, 1997, *China in the twenty-first century: Politics, economy, and society*, Tokyo: United Nations University Press.
- Jiang, Xiaojuan, 1996, *Industrial Policy in the Period of Economic Transformation: Empirical Analysis on the Chinese Experiences and Prospects (in Chinese)*, Shanghai: Shanghai People's Press.
- Johnson, Chalmers, 1980, *MITI and the Japanese miracle: The Growth of Industrial Policy, 1925-1975*, California: Stanford University Press.
- Kojima, Reetsu, 1992, "The Growing Fiscal Authority of Provincial-Level Governments in China," *The Developing Economies* 30.
- Komiya, Ryutarō, Masahiro Okuno, and Kotaro Suzumura, ed., 1988, *Industrial Policy of Japan*, Tokyo: Academic Press Japan.
- Lee, Chunli, 1997, *The Chinese Automobile Industry: Manufacturing System and Technological Strategy (in Japanese)*, Tokyo: Jisansha.
- Lee, Keun, Donghoon Hahn, and Justin Lin, 2002, "Is China following the East Asian Model? A comparative institutional analysis perspective," *China Review* 1(2): 85-120.
- Lee, Namju, 1999, *A Study on the Chinese Industrial Policy in the Period of Transformation of Economic System (in Chinese)*, Ph.D dissertation, Beijing University.
- Liew, Leong, 1997, *The Chinese Economy in Transition: From Plan to Market*, Cheltenham: Edward Elgar.
- Lo, Dic, 1992, *The Chinese Motor Industry: Recent Development and Outlook to 2000*, Hong Kong: CERD Consultants Ltd.
- _____, 1997, *Market and Institutional Regulation in Chinese Industrialization 1978-1994*, London: Macmillan Press Ltd.
- Lu, Ding and Zhimin Tang, 1997, *State Intervention and Business in China: The Role of Preferential Policies*, Cheltenham: Edward Elgar.
- Ma, Jun, 1997, *Intergovernmental Relations and Economic Management in China*, London: International Business Press.
- Marukawa, Tomoo, 1998, "The Contradictions of Industrial Groups: A case study of FAW Group," Paper presented at the workshop on 'Emergence and Structuring of Corporate Groups in People's Republic of China,' held in Beijing, China.

삭제됨: Chinese

삭제됨: edited by Lee, Chung H. and Yamazawa Ippei, London: Praeger. .
Chung, Jaeho, 1998, "Study of Provincial Politics and Development in the Post-Mao Reform Era: Issues, Approaches and Sources," *Provincial Strategies of Economic Reform in Post-Mao China: Leadership, Politics and Implementation*, edited by

삭제됨: Armonk: M. E. Sharpe. .
Harwit, Eric, 1995, *China's Automobile Industry: Policies, Problems, and Prospects*, Armonk: M. E. Sharpe. .
Itoh, Motoshige, Kazuharu Kiyono, Masahiro Okuno, and Kotaro Suzumura, 1994, *Economic Analysis of Industrial Policy*, London: Academic Press Inc. .
Itoh, Fumio, 1997, *China in the twenty-first century: Politics, economy, and society*, Tokyo: United Nations University Press. .
Jiang, Xiaojuan, 1996, *Industrial Policy in the Period of Economic Transformation: Empirical Analysis on the Chinese Experiences and Prospects (in Chinese)*, Shanghai: Shanghai People's Press. .
Johnson, Chalmers, 1980, *MITI and the Japanese miracle: The Growth of Industrial Policy, 1925-1975*, California: Stanford University Press. .
Kojima, Reetsu, 1992, "The Growing Fiscal Authority of Provincial-Level Governments in China," *The Developing Economies* 30. .
Komiya, Ryutarō, Masahiro Okuno, and Kotaro Suzumura, ed., 1988, *Industrial Policy of Japan*, Tokyo: Academic Press Japan. .
Lee, Chunli, 1997, *The Chinese Automobile Industry: Manufacturing System and Technological Strategy (in Japanese)*, Tokyo: Jisansha.: - . .
Lee, Keun, Donghoon Hahn, and Justin Lin, 2002, "Is China following the East Asian Model? A comparative institutional analysis perspective," *China Journal* 1(2): - . .
Lee, Namju, 1999, *A Study on the Chinese Industrial Policy in the Period of Transformation of Economic Syst*...

- _____. 1999, "The Development of State-Owned Corporate Groups and their Relationship with the State," presented at the conference 'The Emergence and the Structure of Corporate Groups in P. R. of China: An International Perspective'.
- Oi, Jean C., 1992, "Fiscal Reform and Economic Foundation of Local State Corporatism in China," *World Politics* 45(1): 99-126.
- _____, 1995, "The Role of the Local State in China's Transitional Economy," *The China Quarterly* 144: 1132-1149.
- Ryu, S.M., 1994, *Pending Tasks for the Korean Automobile Industry and Industrial Organization Policy* (in Korean), Seoul:KDI.
- Shin, Yongtae and Hwasup Kim, 1996, *The Development of Chinese Industrial Policy and the Sino-Korean Economic Cooperation* (in Korean), Seoul: KIET.
- State Council, 1989, *Decision on the Gist of Current Industrial Policy March(15)* (in Chinese)
- _____, 1994, *The Outline of the State Industrial Policy 1994 March(25)* (in Chinese).
- State Information Center, 1997, *Market Prospects for the Chinese Automobile Industry 1998* (in Chinese), Beijing: China Planning Press.
- State Planning Commission, 1997 and 1998, *China Industrial Development Report* (in Chinese), Beijing: Economics and Management Press.
- State Statistical Bureau, 1986 through 2002, *China Statistical Yearbook* (in Chinese).
- Steinfeld, Edward S., 1998, *Forging Reform in China: The fate of State-Owned Industry*, Cambridge: Cambridge University Press.
- Suzumura, Kotaro, and Kazuharu Kiyono, 1987, "Entry Barriers and Economic Welfare," *Review of Economic Studies*, 54(January).
- The Korea Development Bank, 1996, *Major Industries in China* (in Korean).
- Wong, Christine, 1991, "Central-Local Relations in an Era of Fiscal Decline: The Paradox of Fiscal Decentralization in Post-Mao China," *China Quarterly* 128: 691-715.
- World Bank, 1993, *The East Asian Miracle: Economic Growth and Public Policy*, London: Oxford University Press.
- Zhang, Leyin, 1999, "Chinese Central-provincial Fiscal Relationships, Budgetary Decline and the impact of the 1994 Fiscal Reform: An Evaluation," *China Quarterly* 157: 115-141.
- Nanfang Zhoumo*, 2002.
- Zhongguo Jingji Shibao*, 2002.

Jong-Hak Eun, Ph.D. Candidate, School of Economics and Management, Tsinghua University, Beijing 100084, China. E-mail: yinzh@hanmir.com

Keun Lee, Associate Professor, Department of Economics, Seoul National University, San 56-1, Shilim-dong, Kwanak-gu, Seoul 151-742, Korea. E-mail: kenneth@snu.ac.kr

삭제됨: Ryu, 1994, 저서명, 출판사.

Shin, Yongtae and Hwasup Kim, 1996, *The Development of Chinese Industrial Policy and the Sino-Korean Economic Cooperation* (in Korean), Seoul: KIET. .

State Council, 1994. 3. 25, *The Outline of the State Industrial Policy 1994*(in Chinese). .

_____, 1989. 3. 15, *Decision on the Gist of Current Industrial Policy*(in Chinese) .

State Information Center, 1997, *Market Prospects for the Chinese Automobile Industry 1998* (in Chinese), Beijing: China Planning Press. .

State Planning Commission, 1997 and 1998, *China Industrial Development Report* (in Chinese), Beijing: Economics and Management Press. .

State Statistical Bureau, 1986 through 2002, *Statistical Yearbook of China* (in Chinese). .

Steinfeld, Edward S., 1998, *Forging Reform in China: The fate of State-Owned Industry*, Cambridge: Cambridge University Press. .

Suzumura, Kotaro, and Kazuharu Kiyono, 1987, "Entry Barriers and Economic Welfare," *Review of Economic Studies*, 54(January). .

The Korea Development Bank, 1996, *Major Industries in China* (in Korean).

Wong, Christine, 1991, "Central-Local Relations in an Era of Fiscal Decline: The Paradox of Fiscal Decentralization in Post-Mao China," *China Quarterly* 128: - . .

World Bank, 1993, *The East Asian Miracle: Economic Growth and Public Policy*, London: Oxford University Press. .

Zhang, Leyin, 1999, "Chinese Central-provincial Fiscal Relationships, Budgetary Decline and the impact of the 1994 Fiscal Reform: An Evaluation," *China Quarterly* 157: - . .

Zhongguo Jingji Shibao, May 15, 2002. .

_____, July 9, 2002. .

. . .

. . .

삭제됨: China's

삭제됨: 145: - . .