

Chapter One

The Evolution of Economic Base: From Industrial City, Post-Industrial City to Interface City

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In the current global economy, cities have become the key locations which connect a country's national economic activities with the broader world economy. Scott (1998; 2000) dubbed the major cities and their neighbouring region, or city-regions, as the engine of the mosaic global economy. Sassen (2001) even claimed that it is the global cities, not the national economy, that should be the focus in the discussion of the global system. Taipei, the capital city of Taiwan, is no exception.

Little of the literature dealing with the development of postwar Taiwan economy has taken the city's role seriously. Most focused on the national development caused by the interplay between state intervention and market formation (see Wade, 1990; World Bank, 1993). However, as recognized by Short (1996) Lo and Marcotullio (2000) and Byrne (2001) the urban and the economic worlds would co-evolve and create divergent roles played by the cities in the economic transformation process. In light of such understandings, this chapter aims to explore Taipei City's economic base in the globalization process.

This chapter will demonstrate that the economic base of Taipei has evolved from the manufacturing centre around 1960s, the trading service centre in 1970s, and gradually to knowledge-based activities after 1980s. The key to the evolution lies in the interaction between the global economy, developmental state and local industrial system. In the following three sections, the periodization of the economic evolution will be tackled sequentially in accordance with the theoretical context. The conclusion and summary remarks will summarize the findings.

Industrial City and Rapid Industrialization before 1970s

According to Liu (1992a) Taiwan's economy entered a stage of import substitution after a series of land reforms and exploitative transfers of surplus from the agricultural sector to manufacturing sector by government grain price-depreciation policies in 1950s.¹ With aid from the US, the Kuomintang (KMT) government engaged in industrial recovery from the war, and had stipulated economic plans from 1953. The first and second 4-year plans (1953–1960) targeted the growth of light industries, such as textiles, footwear, agro-processing, and fertilizers, and transportation and electricity infrastructure to improve industrial performance. To protect these infant industries, the government raised import tariffs and appreciated the currency value. Most of the industries grew up and targeted the domestic market in the late 1950s. As industrialization proceeded, the share of manufacturing sector in GDP rose from 12.9 per cent in 1952 to 19.1 per cent in 1960. Most of the manufacturing activities were concentrated in the urban regions, where the high population density was most suitable for the domestically-oriented firms to locate (Li, 1986).

The situation changed in early 1960s, as two events emerged to derail the dominant industrial trajectory from import substitution to export promotion. First, the domestic market was too small to absorb the output of the rapidly growing industries, and was saturated by late 1950s (Li, 1980). New outlets were explored to fix the crisis of over-accumulation. Second, the paradoxical shortage of foreign exchange induced by the import substitution, with increasing demand for equipment and capital goods imported in order to establish and upgrade light industries, generation of foreign exchange became imperative to sustain the economic system (Li, 1980). Under these circumstances, export activities turned out to be the logical option. Third, the opening of the massive market in the advanced industrial countries, mainly the US, rendered export possible and allowed for an industrial restructuring (Massey, 1984). Finally, a new pattern of international division of labour emerged and some of the developing countries became the platform for outsourcing by making use of their cheap labour and land (Frobel *et al.*, 1980). Taiwan took advantage of this production opportunity and transformed itself into an export-oriented economy.

A number of key factors characterized Taiwan's export industrialization process in 1960s. First, it was the state, rather than the market itself, that initiated the transformation process (Wade, 1990). The government adopted numerous measures to change the terms of trade to attract foreign capital by depreciating currency and reducing tax. To improve the business climate, the government also set up Export Processing Zones (EPZs) to host subsidiaries of the multinationals (Li, 1980). In addition, industrial policies to encourage new firm entry were introduced by the

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government. These policies were incentive oriented rather than picking the winner. As a result, the proliferation of small firms took effect.

Second, in the social context, the key agents of export were not the conglomerates (mostly state owned) but a wide array of small and medium sized enterprises (SMEs) in labour intensive industries such as plastics, textiles, foods and footwear (Levy and Kuo, 1991; Mody, 1990).² As shown in table 1.1, over 99 per cent of the industrial establishments were in the category of SMEs, each employing less than 100 people. According to the Ministry of Economic Affairs, the SMEs generated more than 65 per cent of the export value from 1960s onward. It was no exaggeration that the SMEs were the pillars of Taiwan's postwar economic miracle (Orru, 1991; Zhou, 1999).³

Table 1.1. The percentage of Small Medium Enterprises (SMEs) in Taiwan.

	<i>Number of establishments</i> (% of total)	<i>Product value</i> (% of total)	<i>Employees</i> (% of total)	<i>Average number of employees</i>
1961	99.57	–	64.28	5.98
1966	99.28	–	57.30	7.04
1971	98.96	37.09	52.52	8.72
1976	98.90	32.27	53.00	8.79
1986	99.00	34.46	57.89	8.49
1991	99.24	41.23	63.82	7.94

Source: The Industrial and Commercial Census data for Taiwan-Fukien District.

Third, the concentration of manufacturing plants in the big cities, particularly Taipei Metropolis, which comprises Taipei City and the surrounding Taipei County, continued and even expanded up to the 1960s, as shown in table 1.2. The reason behind the agglomeration in the key metropolises came from the huge demand for labour by the labour-intensive industries, together with the poor infrastructure in the non-urban areas (Lai, 1986). At the same time, the decline of the agricultural sector as a result of the grain price-depreciation policy gradually led to an impasse of employment opportunities in the rural regions, which, in turn, induced a rural-urban migration after 1964. As estimated by Liu (1992b) more than one million of the agricultural population migrated to urban areas after the 1960s. Consequently, both of the rural exodus and industrial agglomeration contributed to the rapid urbanization of Taipei Metropolis in 1960s, and consolidated the primacy of the capital city, which was subsequently granted a special city status in 1969.

In sum, the Taiwan economy before the end of 1960s relied on the export of labour-intensive goods, which were produced by SMEs agglomerated in the urban areas. The rural-urban migration increased the polarization effect across the island. Taipei City played the role of industrial base in facilitating Taiwan's economic growth.

Table 1.2. The location quotient of industrial sectors in Taipei City and Metropolis, 1966–1996.

		<i>Agri- culture</i>	<i>Mining</i>	<i>Manu- facturing</i>	<i>Utilities</i>	<i>Con- struction</i>	<i>Com- merce</i>	<i>Service</i>	<i>Trans- portation</i>
1966	Taipei City	17	53	132	568	191	232	206	363
	Taipei	32	143	175	364	134	170	159	239
	Metropolis								
1971	Taipei City	12	50	98	215	215	302	NA	NA
	Taipei	24	188	160	144	149	201	NA	NA
	Metropolis								
1976	Taipei City	10	209	74	166	212	274	238	214
	Taipei	20	174	128	123	154	192	168	157
	Metropolis								
1981	Taipei City	11	34	58	139	186	254	265	219
	Taipei	18	80	114	113	141	150	187	163
	Metropolis								
1986	Taipei City	10	33	49	117	186	268	239	217
	Taipei	16	72	105	102	136	186	167	162
	Metropolis								
1991	Taipei City	4	23	81	323	128	186	220	217
	Taipei	17	49	114	239	130	168	180	189
	Metropolis								
1996	Taipei City	3	16	81	323	102	157	211	207
	Taipei	16	27	110	226	113	145	173	167
	Metropolis								

Source: Calculation from Industrial and Commercial Census data for Taiwan-Fukien District.

Because of Taipei's contribution, an average over 10 per cent in the annual growth of GNP was achieved during the period of 1964–1973 in Taiwan.

Rural Industrialization and the Rise of Post-industrial City in 1970s

The export activities were the major driving force behind Taiwan's economic development since 1960s. They not only increased in economic scale, but also expanded in geographical scope in 1970s. Kuo (1983) found that the contribution of export to the growth was 35 per cent during 1961–1966, 45.9 per cent during 1966–1971, and 68.7 per cent in 1971–1976. Taiwan's economy was clearly export oriented as were most newly industrializing economies such as South Korea, Hong Kong and Singapore. However, more impressive than the rapid growth was that industrialization spread to the rural areas and formed an urban-rural network of production, which was distinctive from other developing economies (Gilbert and Gugler, 1992; Gugler, 1996).

The global economic recession caused by the first oil crisis hit Taiwan in 1973, as a result of a series of protectionist policies in the US, the major outlet for Taiwan's products. At the same time, the ruling party, the KMT, encountered the double

political predicaments of retreating from the international community by the forced withdrawal from the United Nations in 1971, and a leadership succession problem as the strongman was old and ill. The new leader, then-premier Chiang Ching-Kuo, declared 'The Great Construction Plan' to upgrade the industrial structure and strengthen his control in the political power struggle. The plan consisted of two major programmes; one concentrated on the introduction of heavy industries, such as, petrochemical, steel, and shipbuilding plants to substitute the intermediate production for the export industries and deepen the industrial structure, while the other clustered around improving transportation and infrastructure, such as, by the construction of an expressway, port and nuclear plant, and broadening the industrial structure (Liu, 1992b).

Worst of all, the decline of the agricultural sector became a thorny problem in early 1970s, as the rate of growth in agricultural value turned from positive to negative in 1971, and continued to decline thereafter. According to Liaw *et al.* (1986) the agricultural crisis would have exploded if there was no appropriate intervention. As more young and skilled workers migrated to the urban regions, the rural area had a labour shortage in agricultural production, innovation deficiency and productivity decay, under the unfavourable and unequal exchange with industry. The government was forced to change its grain price-depreciation policy and replace it with a policy of subsidizing grain production. In addition, the government attempted to draw the embryonic industries into rural areas to create job opportunities to alleviate the stress of transformation and balance the rural-urban disparity (Sun, 1988).⁴ The government persuaded manufacturing firms to move from urban areas to the rural regions, at the same time extolling the virtues of hard work and encouraging rural households to take part-time jobs with these manufacturing firms.⁵ Pitch roads were paved, and new industrial parks were constructed in the rural areas with the policy goal of moving these areas forward by the introduction of manufacturing industries (Xu, 1986). From the 1970s the countryside became the site of a mixture of agricultural and manufacturing activities. As illustrated in table 1.3, the sources of income for agricultural households steadily moved to the non-agricultural sector, particularly wages from manufacturing sectors, which became the chief source of rural household income.

From the perspective industrial development, the concentration of manufacturing firms in urban areas led to spiralling land prices, traffic congestion and a shortage of unskilled labour (Tang, 1981). Urban diseconomies of agglomeration occurred. As a result, labour-intensive industrial firms started to disperse to the hinterland of the core city, and even the rural areas after 1971. As shown in table 1.2, the location quotient of manufacturing industries in Taipei City declined dramatically in early 1970s, and decreased slightly continuously in the metropolitan area. However, the overall pattern of development reflected deindustrialization in the capital city, and

Table 1.3. The structure of agricultural household income.

	The source of income (% of total)		
	<i>Agriculture</i>	<i>Wage</i>	<i>Others</i>
1966	66.0	20.1	13.9
1968	52.6	32.2	15.2
1970	48.7	36.0	15.3
1971	45.2	35.5	19.3
1972	42.3	42.3	15.4
1973	45.6	40.7	13.7
1974	48.1	37.3	14.6
1975	46.3	38.9	14.8
1976	41.4	40.4	18.2
1977	40.5	42.1	17.4
1978	33.4	47.8	18.8
1979	27.3	52.8	19.9
1980	26.4	52.2	21.4

Source: Taiwan Statistical Data Book, Council for Economic Planning and Development, Executive Yuan.

service industries emerging as the dominant sector (see Chapter 2). How would the replacement occur? The industrial restructuring was caused by the process of rural industrialization and the rural-urban spatially networked production system.

As illustrated above, Taiwan's economic structure consisted of a wide array of SMEs. Small size and flexibility were regarded as the significant features of Taiwanese industries. Most of Taiwan's labour-intensive industries had a unique feature not found in any other country in the world apart from newly industrialized Asian economies; that is, Taiwan's industry was not led by a few big corporations but created by various small firms producing all kinds of industrial parts, which composed the critical element of the export-oriented industry. Industrial goods were not developed and produced within a factory or a company, but through a network of production service – a subcontracting production network. This was another critical element, which provided strong support for those who made business deals with foreign companies or buyers. The backbone firms concentrated on production. Usually, they did not contact foreign buyers unless they had other products or parts, which could be sold independently in the market. Many such firms simply stayed backstage and provided production services to other local companies, the 'upstage' coordinators, which made business contacts and business deals with foreign buyers, developing products, and coordinating productions. The production activities were basically driven by those out front service firms (Hsia, 1988; Shieh, 1992).

To support the production of these products, hundreds of satellite factories were in place making various components or parts. Most of the firms in the same

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industrial group were located in the same township, village, community and even avenue. Jobs subcontracted to the household would mobilize the labour reserve army, such as the housewives, the elderly, the children, and particularly, those men who still engaged in farming (Shieh, 1992). In most cases, each township produced just one product, and transformed the locality into a specialized district, for example, shoes in Dali (Hsu and Cheng, 2002) stockings in Shetou (Liu, 2000) bicycles in Daya (Chen, 2002) and umbrellas in Homei (Hsia, 1988) all in central Taiwan's rural areas. Geographical concentration saved the subcontracting firms' costs in delivery and transactions enhanced the diffusion of business information, and even technical skill in the local labour market.⁶

How could the Taiwanese SMEs get orders from overseas firms, and export to foreign markets? The key players here were the hundreds of trading companies which were initially dominated by the Japanese, and gradually replaced by Taiwanese companies located in Taipei. The role of the trading companies could only be understood in the context of the arrangement of Original Equipment Manufacturing (OEM) production chains (Hsing, 1998; Hoesel, 1999). Many key foreign retailers such as Wal-Mart, JC Penny, and others were placing OEM orders with Taiwanese firms. In 1983, there were around 36,000 domestic trading companies in Taiwan, and most of them were located in Taipei City (Chen, 1991; Ching, 2001). It was reported that over 72 per cent of Taiwanese shoe manufacturers sold more than half of their products through these trading companies. According to Hsing (1998) the trading companies not only took charge of the import-export transactions, but also, more importantly, engaged in quality control and on-time delivery, product design and development, risk sharing, and coordination of inter-firm scale and scope economies.⁷ The production network is depicted in figure 1.1. Occasionally, the traders would extend their business to the supervising manufacturing process, and the manufactures would expand forward to the trading business. Job hopping between these two interlinked businesses was quite frequent, and firm boundaries became blurred (Chen, 1991). The interpersonal ties lubricated the interaction process, and led to the underdevelopment of other producer services, such as legal, financial and consulting business in the management of rural-urban production networks (Daniels, 1998).

It was clear that in Taipei City in the 1970s, economic restructuring acted as the 'dragon head' of the extended rural OEM networks to connect with the international buyers. The post-industrial role played by the city was closely associated with relocation of manufacturing activities to the rural areas. A new pattern of rural-urban division of labour replaced the old one, characterized by urban industrialization and rural out-migration. This pattern did not disappear until the outflow of industries occurred in late 1980s.

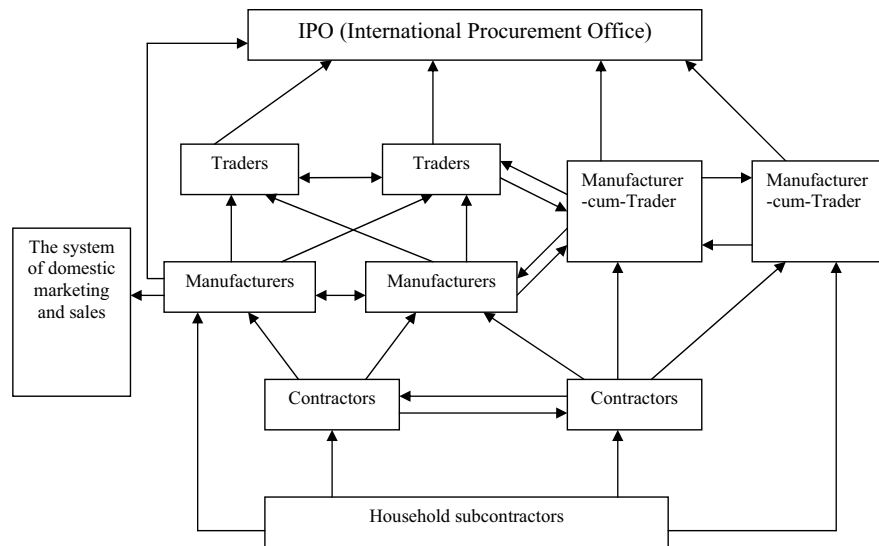


Figure 1.1. The production networks in Taiwan's export-led industries. *Source:* Adapted from Hsing (1998).

Production Globalization and the Emergence of City-Region in 1980s

At the beginning of the 1980s, an acute shortage of cheap labour and land occurred, and more importantly, the rise of the late-latecomers such as the Southeast Asian industrializing countries and mainland China, changed the patterns of industrial development in Taiwan (Chung, 1997). The change evolved in two ways: on the one hand, the government initiated the industrial upgrading process by promoting high-technology industries such as personal computer and integrated circuit industries in the Northern Region with the core city in Taipei; on the other hand, it triggered the emigration of Taiwanese capital in search of new cheap production in terms of land and labour, and broke down the rural-urban division of labour that had existed in the 1970s.

In 1980s, the government decided to transfer to high-technology industries, and upgrade the industrial structure from labour-intensive to technology-intensive. As the SMEs constituted the pillar of the economy, the government had to support the start up of these risky industries, as most of the private firms, both small and relatively large ones, such as Formosa Plastics hesitated participating in investment-intensive business. The government set up key research institutions such as the Industrial Technology Research Institute to bridge technology transfer, and constructed the Hsinchu Science-based Industrial Park to subsidize and host new firms. The Industrial Park and its neighbouring corridor extending to Taipei

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was praised as one of the most successful technopoles around the world (Castells and Hall, 1994; Mathews, 1997). The area is now the home to Taiwan's most rapidly growing microelectronics industries such as integrated circuit and personal computer manufacturers. These firms, mostly small and medium sized, collectively build up a vertically disintegrated industrial system. Local companies dominate the market for a large and growing range of computer-related products, from notebook computers, motherboards and monitors, to optical scanners, keyboards and power supplies.

At present, Taiwan's state-of-the-art semiconductor foundries account for two-thirds of global output. Not surprisingly, the industry has grown dramatically in the past two decades. Taiwan's information technology sector now ranks third in the world, with total output of US\$78 billion in 2003, ahead of larger nations such as South Korea, and only behind the US and Japan. The emergence of these high-tech industries demonstrated that the state could lead in the creation of industrial upgrading in Taiwan. As a result, the Taipei-Hsinchu corridor re-industrialized in early 1980s, and became a high-technology city-region in the global market. Taipei Metropolis regained industrial power in the restructuring process with the simultaneous development of the role of producer services (Ching, 2001).

Another starkly different story unfolded in the rural industrial areas, as the state was forced to allow the outflows of rural industries. At the same time, Taiwan transformed from foreign capital recipient to outward investor in economic development. With the price increase in domestic labour and land, industrial investment initially went to ASEAN countries. With even less costly production inputs and cultural familiarity, Taiwan's foreign direct investment (FDI) soon took off to mainland China after 1987, and quickly overshadowed its FDI to Southeast Asia. According to Kao (2000) during the early phase (1987–1991) most of Taiwanese FDI on mainland China was carried out by SMEs in labour-intensive sectors such as the plastics, footwear, toy, and garment industries. Most of the trans-border firms remained connected with their suppliers and customers in Taiwan, and reproduced the whole production networks in the host countries (Chen, 1998; Hsing, 1998). The hollowing out of the labour-intensive industries from the countryside led to the restructuring of the rural-urban division of labour. Searching new connection with the emigrated business became the imperative for the 'dragon head', Taipei City, in order to reposition itself in the rearrangement of the trans-border production chain.

Rise of Interface City after 1990s

The 1990s marked the emerging new trend of cross-border investment to mainland China and global competition for Taipei. For one thing, the battle for position at

the strategic nodes in the global space of flows resulted in direct and fierce rivalry between the cities, even those within the same national boundary (Sassen, 2001; Castells, 1996). Taiwan was of no exception. Each city had to build up linkages with other nodes, even beyond the national boundaries, in the global web of business in order to tap into resources and maintain growth. For another, Taiwanese FDI to China has shifted from labour-intensive and small-scale to technology-intensive and large scale, including those personal computer firms in the Taipei-Hsinchu corridor, as the opening of China's market was expected after China's entry to the World Trade Organization (WTO).⁸ This situation raised a concern about the possibility of the hollowing out of the high value-added activities out of Taiwan. Most Taiwanese investors (in China) imported inputs from Taiwan to China for processing in the 1980s, but more and more materials were locally sourced gradually, the ratio of import from Taiwan declined to about 30 per cent in 1998.

In response to the new situation, Taipei City had to manage the connections with other nodes and, at the same time, extend high value-added activities to the cross-border production chain. On the one hand, the Taipei-Hsinchu corridor benefited from the interdependencies between it California's Silicon Valley, the world technology hub, by virtue of a community of US-educated Taiwanese engineers. They coordinated a decentralized process of reciprocal industrial upgrading by transferring capital, skill, and know-how to Taiwan and by facilitating collaboration between specialist producers in the two regions (Saxenian and Hsu, 2001). This bilateral connection underscored the role of regional motor played by the Taipei-Hsinchu corridor in the worldwide economic competition. The Taipei city-region, to a certain degree, aligned itself more with international nodes in global capitalism than other domestic nodes. It was a process of territorial realignment and rescaling. Taipei became the leading location in handling the economic growth of the city-region, and headquarters for over 70 per cent of Taiwan's top 100 informatics firms (see figure 1.2).

Furthermore, to meet the challenge of the transnational high-technology firms, Taipei City had to upgrade its producer service provision. As shown by Ching (2001) the share of product value of producer service industries, such as marketing, logistics, advertising, insurance, legal service and trading service, in the total value produced in Taipei increased from 19.8 per cent in 1981 to 29 per cent in 1996. It demonstrated that the expansion of informatics FDI in China enhanced, rather than weakened, the connection with the parent firms in Taipei. As more Taiwanese investors (in China) upgraded from Original Equipment Manufacturing to Original Design Manufacturing⁹ and imported critical parts from Taiwan to China for processing (Hobday, 2001) the service activities supporting the cross-border manufacturing chains created more business opportunities for the headquarters in the Taipei city-region.

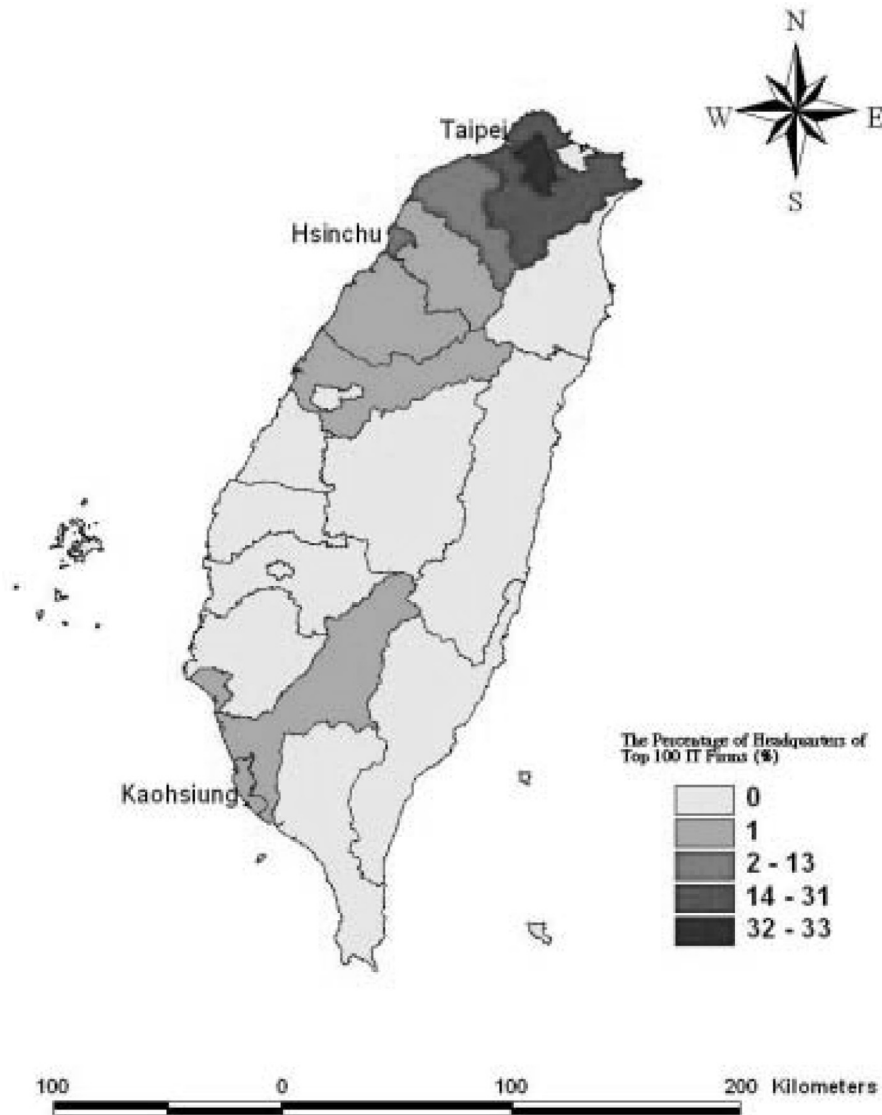


Figure 1.2. The spatial allocation of the headquarters of the top 100 informatics firms. *Source: Business Next Magazine* (2002) pp. 24–31.

A new character was emerging for Taipei City in the global economy: an interface city, which acted as a node to connect with technology hub in Silicon Valley, and extended the high technology investment across the strait, characterized the city's role in the global space of flow. It exploited the advantage of dense technical communities, the industrial structure which complemented Silicon Valley, and the knowledge base accumulated over more than two decades of technological learning (Hsu and Saxenian, 2000).¹⁰ In addition, the ethnic ties and cultural affinity between

Taiwan and China enabled cross-border investment and exploration of the China market with relative ease (Hsing, 1998; Hsu, 2002). Both connections were mutually imperative, as the technology advantage rendered Taiwanese high-technology FDI profitable, and the cultural advantage attracted more Silicon Valley firms to collaborate with Taiwanese to enter China's market. Taipei City could grow as a city of knowledge and producer services in the transformation after 1990s. However, the new industries had greater freedom of location choice, and were able to locate beyond the Taipei City boundary. As a result, the Taipei-Hsinchu corridor, rather than Taipei City itself, became a localized industrial district to articulate with other economic nodes in the world economy. Taipei struggled to maintain the segment of high value-added in the new industrial linkage.

The role of the interface city should be understood within the context of the social embeddedness of the global placeless economic flow. It has been argued that a transnational ethnic community usually bridged the dispersed regional economies and enhanced the flows of information, capital, people and the knowledge they held within the worldwide ethnic economic network (Ong and Nonini, 1997). Each locality was re-bounded in the ethnic network, and recombined to create new business firms, new industrial practices, and new economic geographies. The process of interlinking among the nodes of the ethnic web created organizational and geographical forms of the particular trans-nationalism. Some cities and regions gained growth momentum, while others failed and declined in the interconnection. However, it did not mean that the destinies of each city or region would be determined by the external connections. In contrast, this chapter argues that the current globalization process provided both challenges and opportunities. The result would depend on how each locality took advantage of its strategic nodal position in the territorial division of labour and production process, whether the city countered the challenge with pro-active policies or passively withdrew from the opportunities. Therefore, the city had to, on the one hand, build up close connections with other nodes in the global network, and on the other, enhance its own competitive advantages in absorbing the external resources. The 'ungrounded empire' became re-grounded in particular cities (Zhou and Tseng, 2001). These cities, such as Hong Kong and Taipei, or part of the cities, such as the 'Little Taipei' in Los Angeles (Zhou and Tseng, 2001) played the nodal roles in worldwide ethnic business networks. In this sense, they were interface cities.

However, a number of governance contradictions hindered the China connection around which the city needed to steer carefully.

Ways Ahead: the Governance of Interface City

As urban competitiveness in the global knowledge economy resided in the hard

(physical) and especially the soft (social interaction) networks (Malecki, 2002) the key to enhancing Taipei's advantages would hinge on preparing infrastructure and more importantly, operating networks at the global, national, regional and local scales, gathering knowledge via social interaction. The difficulty arose in the process of building up a collective order in the networking (Scott, 1998).

First, production globalization and the consequent break up of the rural-urban industrialization mode led the different localities to face direct competition with hardly any supportive intervention from other cities. As a result, the race for infrastructure construction became fierce, and often brought about repeated infrastructure investments. For example, the contest for high-technology parks (for knowledge industries) and international airports (for cross-Strait investment) among different cities occurred after the mid-1990s. Consequently the fight for budget allocation between Taipei and other cities cost the former millions of dollars.¹¹ In addition, the political conflict between the central and Taipei government, which were led by opposition parties, caused delay in new infrastructure construction in Taipei¹² and thus a shortage of hard infrastructure in the city. According to a report by the municipal government, the availability of sewerage in Taipei only reached 46 per cent, lower than that of Bangkok.

Second, the inward looking of the developmental state created barriers for the cross-border connection. In contrast to the picture of the Singaporean state painted by Yeung and Olds (2001) the Taiwanese state was reluctant to allow the direct flow of capital and people. In particular, the political tension between Taiwan and mainland China brought about interference from the central government in cross-Strait investments. Most official policies towards mainland China aimed to hinder, rather than promote direct flows. Taiwanese investors, especially high-technology firms, were forced to register in a third country, such as the Cayman Islands, as foreign companies in order to make investments in China, rather than report to the government. There were policies which did not allow direct transportation between Taiwan and mainland China. Consequently, to serve these 'sneaky' investments, the added costs to the producer service providers did not enhance the interface city's advantage in the global economic competition (Ching, 2001).

Finally, the lack of the frequent and open flow of talented people would reduce the long-term competitiveness of the interface city. In fact, in the new economy, technical communities were usually the major source of tacit knowledge, which was the critical ingredient of innovation (Maskell and Malmberg, 1999). The social network of talented people constituted the competitive advantage of regions (Saxenian, 1994; Storper, 1997). Furthermore, the networks have to keep open without the peril of lock-in, and the social milieu must be tolerant and facilitate the connections to maintain diversification and innovation (Florida, 2002; Amin and Thrift, 2002). In light of these arguments, Taipei possessed the potential advantages

in their connections with Silicon Valley and China. The work of the professional networks in Silicon Valley and the Taipei-Hsinchu corridor had demonstrated the cross-fertilization between the two city-regions.¹³ However, due to political contention, the connection between Taiwan and China was always thorny. In fact, in addition to the flows of goods and services across the Strait, information talent flow had followed suit and strengthened the cross-Strait connection between Taipei and China's prominent global cities, particularly Shanghai (Hsu, 2002; Leng, 2002; Sum, 2002). The central government still attempted to restrict the flow of engineers from Taiwan to China and *vice versa*. Only 730 mainland Chinese high-technology workers had gone to Taiwan by the end of September 2000. The difficulty in the free exchange of talented people would hurt Taipei as an interface city and restrict the opportunity of taking advantage of brokering the connection.

Summary and Conclusion

This chapter explored dynamics of the economic development of Taipei City in the post-World War II era. It has shown that the economic base of the capital city evolved from the manufacturing centre before 1960s, the trading service centre in 1970s, and gradually to knowledge-based activities after 1980s. The key to the role of evolution lies in the interaction of the global economy, the state (both central and local levels) and local industrial systems in Taipei. In the 1960s, Taipei and its surrounding areas took advantage of the new international division of labour to become one of the major industrial sites and attracted huge rural exodus. In the meantime, Taipei grew rapidly and enlarged the rural-urban gap. It forced the government to encourage industrial dispersal and make rural industrialization possible in 1970s. The major economic role of Taipei shifted from a manufacturing site to an agglomeration of producer services, particularly trading companies, which connected the rural subcontractors with the global buyers. However, the situation changed dramatically after 1980s. On the one hand, more industrial firms moved part of their operations overseas to mainland China, some to Southeast Asia, and reshuffled the transnational production networks. On the other, the core competitive advantage of the city and region came not from traditional service sectors, but from the knowledge activities in the global knowledge economy. In consequence, Taipei raised the agenda of transforming from a post-industrial city to an interface city. It tried to position itself as a node in the cross-border flows of capital and people. Under such conditions, the city engaged in the process of decoupling with the rural hinterland, simultaneously coupling with the trans-border economies. This raised tension between Taipei and the other areas of Taiwan, particularly the central government. It needed new governance mechanisms to handle the situation. This chapter demonstrates that rather than being treated as a bounded space on a map,

Taipei connotes different territorialities and spatial articulation with divergent geographic scales of economic activities in the process of organizational decoupling and re-coupling in the global production chains (cf. Allen, Massey and Cochrane, 1998).

As the global networks of goods, capital, and talents became the norm in current world economies, the connections between divergent socio-economic spaces created the nodal sites to hold down the global flow. The interface region emerged in the intertwined extension of global spaces of flow. It was an interface in that it possessed part of the connecting but contrasting regions, thus was able to assimilate, transmit, and expand the assets of these regions. Taipei City, in light of the concept, gained its momentum from the close links, in capital and talent flow, with the different economic spaces in Silicon Valley and China's coastal cities, particularly the Shanghai region. In brief, Taipei's key advantage hinges on the role it can play well as an interface city in the high-technology industries, and it has to broaden its scope of business networks to enhance the advantage. However, Taiwan's current conservative policies, particularly those towards China, seriously hampered Taipei City in becoming a global city to link with heterogeneous socio-economic spaces. In the long run, these may further hinder the city's position to continue as the interface city for the worldwide business networks.

Notes

1. As estimated by Lee (1971) the surplus being transferred from the agricultural sector to the manufacturing sector reached 22 per cent of the aggregate product value of the former from 1950 to 1955. In other words, around one billion NT dollars per annum were transferred from agriculture to subsidize manufacturing sector during the 1950s.
2. In most cases, the conglomerates monopolized the production of intermediates for the downstream SMEs, which had to procure inputs from the former and exported the final goods overseas. In some cases, the improvement in the production efficiency of the conglomerates benefited from the comparative advantage of the exporting SMEs (Amsden, 1985).
3. This is not an argument that the SMEs matched the rosy picture of flexible specialization and craft democracy. In reality there was exploitation and labour abuse in the labour-intensive SMEs, as reported by Shieh (1992).
4. As suggested by McGee (1998) one of the main goals of state policies was to achieve a more balanced spatial distribution of productive activities, employment, and population, influenced by such researchers as Hirschmann and Myrdal. However, only a few developing countries could meet the mission, as the economic structure tended to polarize in favour of urban regions, and the states did not possess the power to reverse the trend.
5. The key slogans were proclaimed by then-provincial governor, Hsieh Dong-Min, who promoted the living room as the factory, the community as the workplace and hardworking is a virtue.
6. Orru (1991) observed the similarity between Taiwan and Italy in the SMEs social institutions, such as, familism, entrepreneurship and independency, personal ties and business networks, and the reliance on personal savings. Also the geographical patterns between these two countries were quite similar, as there existing industrial clusters of traditional sectors in an industrial district, such as the Third Italy. However, a key

- distinction should be made here: that while most of Italy's industrial sectors possessed their own brand name and controlled the whole production chain, their Taiwan's counterparts usually occupied one or a few segments of the chains as OEM makers without the power to drive the industrial development.
7. In the phenomena of the third Taiwan, the trading companies were the key institution in governing the production networks, as the Mark II district classified by Asheim (1997).
 8. The average size of investment in China rose sharply from US\$ 735,000 in 1991 to 2.78 million in 1995 (Chung, 1997).
 9. As manufacturing matured, the Original Equipment Manufacturing firms themselves would learn and verify their technological knowledge as they moved into production, and became Original Design Manufacturing partners.
 10. Taiwan's technological achievements are reflected in international comparisons of patenting. While all the Asian newly industrializing economies ranked low in the 1980s, Taiwan received US patents at an accelerating rate in the 1990s and surpassed not only Singapore but also Korea and Hong Kong in the number of patents granted per capita. In fact Taiwan, along with Israel, now ranks ahead of all of the G7 except the US and Japan in patents per capita (Trajtenberg, 1999; Ching, 2002).
 11. Due to political confrontation between different parties, the annual budget of Taipei City was reduced by 11.2 per cent in 2001. In contrast, that of Kaohsiung City increased by 16 per cent at the same time as its mayor belonged to the ruling party. Some key festivals supported by the central government and traditionally held in Taipei City were moved to other places under the rhetoric of reducing regional disparity.
 12. These controversies included the location and size of the giant stadium, the cut in subvention allocation and the dredging of the Keelung River, which flowed through the city.
 13. However, Dai (2002) pointed out that less than 500 foreign engineers worked in Taipei until the end of 2000. The low rate of foreign skilled labour possibly was attributed to the returning of the overseas Taiwanese engineers, who provided the channel of technology transfer, and thus reduced the need for other foreign talented people. In fact, the returning workforce rose dramatically in 1990s, and contributed more than two-thirds of the high-technology startups in the corridor (Hsu, 2005).

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