

**MODERNIZATION IN CHINA:
THE EXPERIMENT OF SHENZHEN SPECIAL
ECONOMIC ZONE 1979-1984**

by

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To my father and mother.

Except where otherwise indicated this thesis is my own work. I declare that this study has not been submitted in whole or part for a higher degree to any other university or tertiary institution.

Lai Har Rebecca Chiu

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PREFACE

It has always been difficult for foreigners, including compatriots in Hong Kong and Macao, to conduct social science research in China. Not only are household or individual interviews and questionnaires inhibited, the export of documentary materials is restricted by customs control. Hence, the writer was forced to abandon a questionnaire survey in Shenzhen in 1982 and with it the idea of the proposed in-depth social analysis of the impacts of the special economic zone policy. Thus, a macro study based on official and published materials had to be substituted as the dissertation topic.

This refurbished topic led to interviews being undertaken with government officials in Shenzhen and the academia in Guangzhou. Nevertheless, the gathering of useful data at that time was impeded by the government imposition of the 'internal circulation' regulation for most of the discussion papers and periodicals. The circulation of the weekly *Shenzhen Special Zone Herald* in May 1982 in both Hong Kong and Shenzhen was, therefore, the major source of information.

After much time-consuming effort, arrangements were made to teach in the Shenzhen Intermediate Vocational School in June and July 1982. This permitted the gathering of some 'inside information'. More press releases and publications appeared in 1983 and 1984, but the information was still rather sketchy and unsatisfactory. Finally, another field trip was undertaken at the end of 1984. This trip proved to be more fruitful than the previous excursion. Various handbooks, investment guides and directories were readily available. The first yearbook of the Zones was also published by a Hong Kong agency. Further, the *Shenzhen Special Zone Herald* changed to a daily in December 1983, providing more useful data. Adequate information for studying the social geography of Shenzhen, however, was not forthcoming until the *Shenzhen Special Economic Zone Yearbook 1985* was published in early 1986. At last, the basic material for undertaking a macro analysis of the development of Shenzhen was available.

ABSTRACT

The Special Economic Zones have been designed by the Chinese Government as a two-pronged strategy in its 'open-door' policy: expanding exports and encouraging foreign technology imports. Also, they are intended to be test-grounds for hybrid socialist-capitalist experiments - a reflection of the country's search for efficient methods of production to bring about the country's much-delayed modernization. The Shenzhen Special Economic Zone, in particular, has been given a pivotal role, because it is planned to incorporate both a full-fledged economy and a well-developed urban area. Its progress, therefore, has attracted much attention. The assessments of Shenzhen's initial performance have, however, resulted in polarized opinions. Yet a detailed evaluation of Shenzhen's progress as an export processing zone - a phenomenon similar to those in other developing countries - has not been made. Hence, this study has undertaken the task.

Industrial performance and social conditions within the zones have been perennial themes of export processing zone studies. As a result, the economic progress of Shenzhen is measured in this study against its specific planning goals and directives. Particular attention is centred on industrial performance and the outward-orientation of the Zone's economy - the twin objectives of its economic development. Then the 'well-being' of Shenzhen's population, specifically income and accessibility to social goods, is canvassed. In turn, the economic and social developments are evaluated with reference to the performance of other export processing zones. Finally, Shenzhen's initial contribution and its potential to promote modernization in China as a large coastal city possessing export processing facilities are estimated.

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INTRODUCTION

Shenzhen Special Zone is an experiment. We still need to discern whether it is on the right track. It is our desire that it should succeed. If it fails, it is an experience (Deng Xiaoping, *Shenzhen Special Zone Daily*, 30 June 1985).

China's economy changed tack in 1978 after the rise of Deng Xiaoping and the downfall of the Gang of Four. This new development has resulted in marked changes in economic and urban policies covering agriculture, industry, trade and settlement. A key feature of these policies has been a more liberal attitude towards foreign influences and the development of the coastal region in particular. A striking feature of this change has been the establishment of four Special Economic Zones - Shantou, Shenzhen, Xiamen and Zhuhai - in 1980. An even more relaxed attitude has been reflected in the opening of fourteen coastal ports and Hainan Island to foreign investment and trade in 1984.

Attention in this study, however, is focused on the special economic zone policy by raising a series of general questions: why has China adopted a special economic zone policy; and how have similar phenomena been evaluated? This discussion gives rise to more specific questions on a particular Special Economic Zone - Shenzhen - the most developed of the four Zones. After discussing the approaches adopted to study the Shenzhen Special Economic Zone and the debate pertinent to the Zones, attention is concentrated on two key questions: how has the economic structure and performance of Shenzhen Special Economic Zone developed; how has the Shenzhen Special Economic Zone performed; and what have been its social repercussions? With this information, we can proceed to tackle more general questions: how successful has the policy of developing the Special Economic Zones been in facilitating modernization within their boundaries; and how attractive have the Zones been in inducing economic development in China?

In tackling these questions, the thesis is divided into three parts (Fig. 1). Part I examines China's policies on economic development and urbanization, and the controversy over the performance of similar types of special economic zone phenomena. After a review of the Shenzhen debate, Part II concentrates on the Zone's economic structure, performance and social consequences. Part III studies the achievements of the Shenzhen experiment in the context of the export processing zone debate before

considering their effects on China's modernization. Within this broad framework, Chapter 1 reiterates the significance of the special economic zone policy in China's rapid drive for modernization based on economic and urban development. Initially, an examination is made of the economic and related urban policies to uncover their contributions to China's modernization program pursued by successive leadership in the communist Government since 1949. With reference to city development, a brief outline is given of the swings in economic policy between 1949 and 1976, before highlighting the key features of post-Mao economic and urban policies since 1977. Given this background, attention is directed to the roles and objectives of the Special Economic Zones, and Shenzhen in particular.

Chapter 2 details the arguments within the export processing zone debate. The origin and development of the export processing zones are initially surveyed. Then the pertinent literature is reviewed to illustrate the debate over the viability of the zones as an effective measure for economic and urban development. After summarizing the positions of the different schools of thought, the literature on China's Special Economic Zones is examined with particular reference to Shenzhen.

The special economic zone debate is reviewed in Chapter 3. An analysis of the literature on the Chinese Special Economic Zones is given before discussing the divergent views and the approaches undertaken in the various studies. The shortcomings of this literature and the lacunae on Shenzhen suggest that rather than recycling an old approach, a new one based on the experience of other export processing zones is required.

Following this new approach, Chapter 4 focuses on the economic geography of Shenzhen. In particular, interest is centred on the fulfilment of government directives. Thus, attention is focused on the planning goals, economic structure and performance. Since the Zone is intended to become an industrial city based on an externally-oriented economy, emphases are placed on Shenzhen's industrial development and the attraction of foreign capital. After these analyses, we are in a position to consider the social repercussions triggered by the economic changes.

Chapter 5 discusses the social geography of Shenzhen. Given that the basic aim of socialism is to improve the living standards of the masses, interest is centred on the ability of the special economic zone policy to upgrade the 'well-being' of the residents in Shenzhen. Accordingly, the Zone's population structure is primarily examined before analysing income. Finally, access to social goods is probed. Having ascertained the economic and social performance of the Zone, a return is made to the export processing zone phenomenon and China's modernization in the last chapter.

Chapter 6 gauges Shenzhen's overall performance in the context of the export

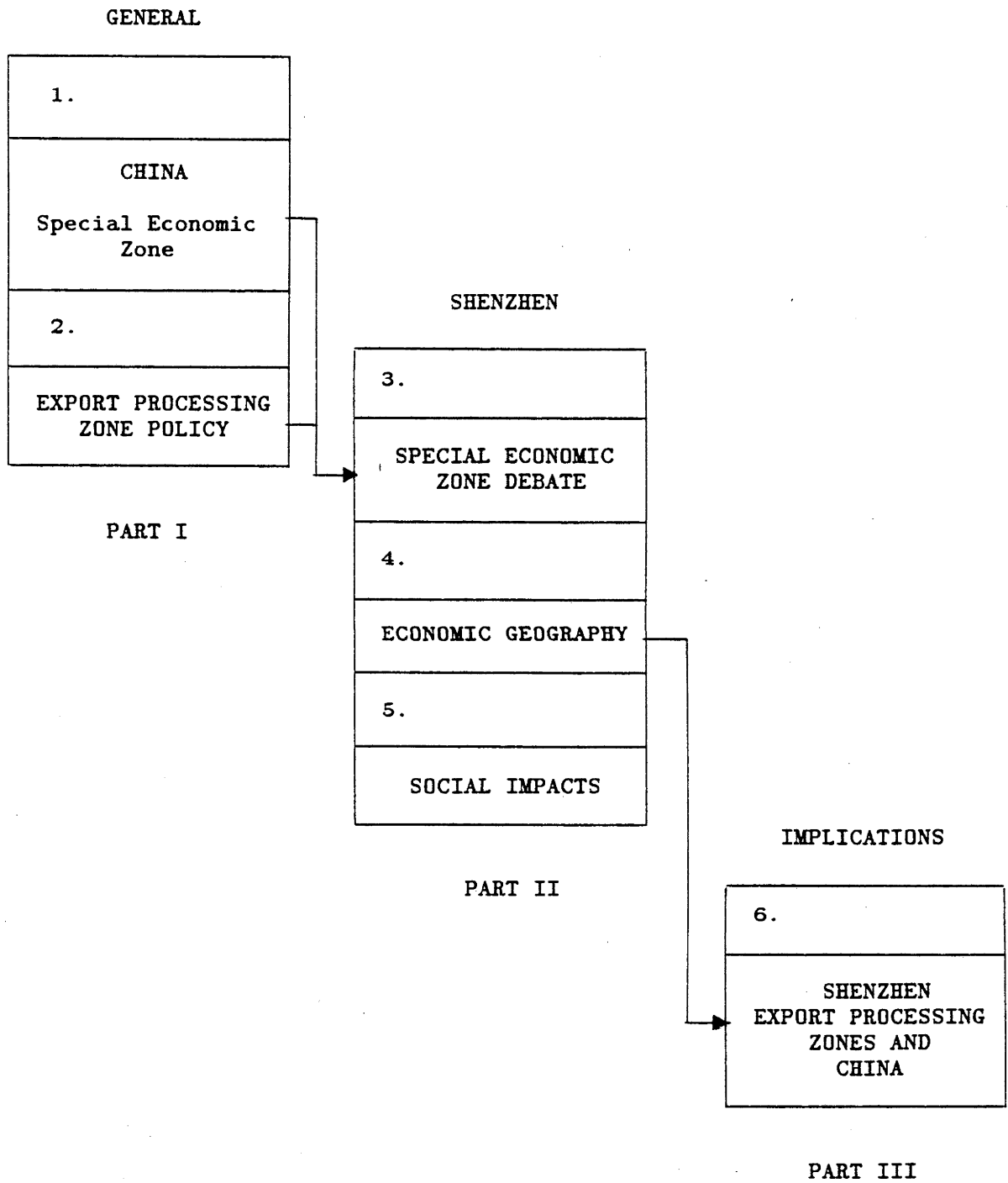


Figure 1: Thesis outline.

processing zone development. In particular, the respective arguments of export processing zone protagonists will be used to determine the potential impact of Shenzhen on China. As Shenzhen is a recent phenomenon, an assessment of its economic and social effects on China must inevitably be preliminary and conjectural.

Finally, the Conclusion summarizes the findings of this thesis and underlines its contribution to understanding Shenzhen's development and extending the compass of the special economic zone debate.

PART I

CHAPTER 1

SPECIAL ECONOMIC ZONES: A STRATEGY FOR RAPID MODERNIZATION

... to develop external economic cooperation and technical exchanges and promote the socialist modernization program (Article One of the *Regulations on Special Economic Zones in Guangdong Province*).

This fundamental objective of the special economic zones policy is dependent upon external contributions. It is not a new departure for China as the country's past history has been punctuated by attempts to import foreign capital and technology through the large cities in a bid to modernize the country. These attempts, however, have been frustrated by both international and internal strife. It was only after the signing of the Shanghai Communique with the United States in 1972, the demise of the 'Gang of Four' in October 1976, and the second rehabilitation of Deng Xiaoping in July 1977, that China has been able to implement the 'open door' policy at full swing. Among other measures, the Special Economic Zones have been designated as both 'pioneers' and 'pacesetters' in the current drive for modernization. Hence, a mere listing of the declared objectives of the Zones does not suffice to illustrate the full significance of this new policy. Instead, their entrusted roles have to be considered in the context of China's past and present development strategies.

The review of China's development strategies is necessarily focused on the economic and urban policies because they have periodically been the main motors of national development. Indeed, the recent changes in economic and urban policies created the Zones. Two fundamental questions can be posed: what have been the changes in foreign economic policies; and what have been the roles of large cities? Specifically, when discussing the post-Mao economic and urban policies, the following questions will be addressed: what have been the country's changing relationships with the world economy; what has been China's changing attitude towards capitalist economic practices; and what have been the renewed roles of coastal cities? After addressing these questions, we can proceed to examine a second set: why has China adopted the special economic zone strategy which hitherto has been a non-communist phenomenon; what are the roles entrusted to these Zones; why was Shenzhen chosen; and what specific roles have been assigned to Shenzhen?

In tackling these questions, this Chapter is divided into three sections: the first reviews the economic and urban development and strategies of China between 1949 and 1976; the second examines the post-Mao development and policies since 1977 in fuller detail, with a particular emphasis on foreign economic relations, economic reforms and the function of coastal cities; and the third summarizes the development of the Special Economic Zones, their general objectives and the special roles of Shenzhen. The creation of the Zones is arguably a more advanced means of achieving the long-established and yet much-delayed intention of using foreign technology and investment to modernize China.

ECONOMIC AND URBAN DEVELOPMENT 1949-76

As the history of economic and urban development in communist China is a vast topic, the present account is necessarily brief. It focuses specifically on changes in foreign economic policies and on the role of cities because these have^{intermittently} been the twin engines behind China's drive towards modernization. As the cities and their growth have been subservient to economic policies, the latter will be considered first (Kwok, 1981; Xu, 1984a). These economic policies are discussed in terms of six periods: Rehabilitation 1949-52; the First Five Year Plan 1953-57; the Great Leap Forward 1958-60; Recovery and Moderate Construction 1961-65; the Great Proletarian Cultural Revolution 1966-69; and Moderate Socialist Construction 1970-76.

Rehabilitation 1949-52

This period was essentially a period of recovery during which peace and order were restored to war-damaged China. Inflation was speedily curbed, and transport connections put back to order. By 1951, the communist Government had controlled and stabilized monetary, fiscal, and trade systems. On the whole, the economy was growing rapidly despite the strains and stresses occasioned by China's entry into the Korean War in 1950 (Klatt, 1980).

The most traumatic policy was the land reform carried out in the countryside. It eliminated the political and economic power base of the landlords by distributing their assets among the peasantry. The incentives offered to individual peasants, coupled with the post-war peace, restored agricultural output to the highest pre-war levels (Howe, 1978).

In the industrial sector, drastic nationalization was limited to avoid any major interruption to the national economy. Mao's 'Democratic Reform' permitted the continued operation of private enterprises, provided they were not hostile to the new leadership. Foreign enterprises were, however, progressively forced to close down because they could not withstand the heavy losses induced by the new laws.

Modernization, with the assistance of foreign aid and technology, was an early goal of the communist regime. The supply of aid and technology was, however, limited to the communist bloc - the Soviet Union being the favoured comrade-in-arms. The Chinese leaders maintained that the country should not only ally itself militarily with the Soviet Union but also copy its institution and basic policies (Barnett, 1981). Hence, the Soviet and East European theories of urban planning began to permeate Chinese thinking while an anti-city mood emerged.

Rapid growth in urbanization occurred during Rehabilitation (urban population grew from 57.6 million to 71.6 million), despite the development of an anti-city attitude sparked off by the Marxist ideology (Table 1.1). Urban places were criticized as 'consumer cities', implying that most urban residents were parasites. The 'three-anti' and 'five-anti' campaigns were thus launched to eradicate corrupt bureaucratic and illegal business practices (Buck, 1981). Meanwhile, it was stressed that cities should be transformed into centres of production. The large-scale construction of industrial cities, however, had to await the inception of the First Five Year Plan.

The First Five Year Plan 1953-57

In 1953, the five-year planning strategy was adopted by the Chinese leadership to achieve the basic development objectives of building 'a modern socialist economy within a relatively short span of time'.¹ The First Five Year Plan aimed at developing capital infrastructure and promoting heavy industry (with a particular emphasis on upgrading the defence establishment). Such a policy could only be realized at that time by large-scale imports of capital goods and military equipment. Their sources were limited to the Soviet Union and Eastern Europe because trade controls by the United States and its allies denied strategic materials to China (Eckstein, 1977).

The requisite capital for equipment purchases came from internal resources - taxes and profits from state enterprises. Soviet aid also played a significant part in this initial industrialization. This aid was directed towards the provision of plant and equipment on medium-term credit and the supply of Russian technicians. Not surprisingly, as noted by Eckstein (1977), China became closely associated with, and dependent on, the Soviet Union. Sino-Soviet tensions, because of ideological, political and territorial disputes, increased during the 1950s. Hence, there was growing concern about China's sole dependence on a single trading partner. Nevertheless, there were neither signs of

1. In his Opening Speech to the First Session of the First National People's Congress in 1954, Mao Zedong pronounced that: 'Within the time span of a few five-year plans, from the basis of an economically and culturally backward country, we will build a great industrial nation with modern culture ...' (Tam, 1985:6).

**Table 1-1: Urban Population* and Non-agricultural
Population of Cities and Towns (NPCT), 1949-82**
(Numbers in million)

Year End	Urban Pop. (TPCT)	NPCT	National Pop.	% of National Pop.	
	I	II	III	I/III x 100	II/III x 100
1949	57.7		541.7	10.6	
1950	61.7		662.0	11.1	
1951	66.3		563.0	11.8	
1952	71.6		574.8	12.5	
1953 ^m	75.3 ^a		580.6	13.0	
1953	77.7		588.0	13.2	
1954	81.6		601.7	13.6	
1955	82.9		614.7	13.5	
1956	89.2		627.8	14.2	
1957	99.5		646.5	15.4	
1960	130.7		660.2	19.8	16.8
1964 ^m	127.1	97.9	691.2 ^b	18.4	14.2
1965		101.7	725.4		14.0
1970		100.8	825.4		12.2
1975		111.7	919.7		12.1
1978		119.9	958.1		12.5
1979		128.6	970.9		13.2
1980		134.1	982.6		13.7
1981		138.7	996.2		13.9
1982 ^m	206.6	146.6	1003.9 ^b	20.6	14.6

Notes: * Based on the Total Population of Cities and Towns (TPCT). m Mid-year. a The first figure reported in 1953 Census was 77.257. SSB (1982) has adjusted this to 75.260. b These are census figures known to exclude the military, which numbered 4.2 million in mid 1982. It is likely that the military is also excluded in the figures for 1970-81, but is included for 1949-60 and 1965.

Source: Chan and Xu (1985:597).

any shift away from the import of foreign technology nor the 'worship of foreign things'; there was also no pressure for autarky at that time.

Soviet influence also dominated urbanization strategies. The Soviet model of developing heavy industry in major industrial bases and key point cities was adopted (Kwok, 1981; Buck, 1981). Accordingly, heavy investment was committed to the construction of new key point cities in the interior (Table 1.2). Existing industrial plants, located in the traditional industrial centres in the coastal belt and the north-east (e.g. Shanghai, Nanjing, Liaoning), established branches or complete factories in the new interior centres (e.g. Xian, Zhengzhou, Baotou, Wuhan, Anshan and Luoyang). Although 120 industrial centres were established, major industrial projects were concentrated in eighteen cities (Schenk, 1977; Buck, 1981). While the need to curtail over-concentration of industries in large cities was raised in 1956, Mao favoured the continual development of big cities in preference to the thin spread of cities in the interior. Consequently, suburban development, inner city redevelopment projects and satellite towns around big cities were planned, but never implemented due to a shortage of capital (Kwok, 1981).

Subsequent to the national emphasis on urban development, China experienced urban migration on a massive scale, triggered by considerable income differentials between the rural and urban population. As the rate of urban industrial development could not absorb the surplus rural population, the mechanization of agriculture led to more serious unemployment problems. The Chinese leaders therefore began to doubt the appropriateness of the Soviet model for the modernization of China. Thus, indigenous methods of development began to take shape during the Great Leap Forward.

The Great Leap Forward 1958-60

Recovery, high morale and institutional transformation contributed to the marked boom in productivity and output during the initial years of the communist regime. As the revolutionary momentum gradually subsided, however, disequilibria became increasingly apparent in a range of sectors of the economy. These imbalances led to food shortages (particularly in the urban areas), and shortfalls in agricultural raw materials to the non-farm sectors that were vital in meeting the needs of the growing population. Confronted by these problems, policy-makers had to reconsider the development strategy.

A re-definition of the development strategy caused a division of opinion within the Chinese leadership over the different approaches to economic development. The reaction of the pragmatists, headed by Liu Shaoqi, Deng Xiaoping and Chen Yun, was to reduce the growth rates and place more emphasis on agriculture and light industry, and less on

Table 1-2: The Distribution of Total Capital Investment in China
by Selected Areas, 1952-1983 (percentage)

Area	1952	I FYP** (1953-57)*	II FYP (1958-62)*	1963-5	III FYP (1966-70)*	IV FYP (1971-75)*	1979	1982	1983
Coastal***	-#	46.7	44.1	-	31.5	42.5	47.9	50.8	49.3
Inland***	-	53.4	55.9	-	68.5	57.5	52.1	49.2	50.7
Extra-ecumenical ⁺	-	-	-	-	-	-	-	17.6	18.2
Third Front ⁺⁺	23.9	30.6	36.9	38.2	52.7	41.1	34.7	25.7	24.0

Notes: * Added by the writer. ** FYP - Five Year Plan. *** The division of coastal and inland areas has not been entirely consistent. The coastal area originally referred to the eastern littoral provinces and municipalities, namely, Beijing, Tianjin, Shanghai, Liaoning, Hebei, Shandong, Jiangsu, Zhejiang, Fujian, Guangdong and, more recently, Guangxi. The remaining provinces and autonomous regions are thus defined as inland. However, the coastal area includes Anhui according to Liu Zaixing, Zhongguo gongye buju xue (A Study of Industrial Locations in China) (Beijing, People's University of China, Department of Planning and Statistics, 1981:60, and Suen Jingzhi, et al., Zhongguo jingji dili gaillon (Introduction to the Economic Geography of China) (Beijing, Commercial Press, 1983:40); or it may include Jingxi instead of Hebei according to Liu Guoguang, Zhongguo jingji fazhan zhanlue wenti yanjiu (A Study of the Problems of China's Strategies for Economic Development) (Shanghai, People's Press, 1984:264). The present chapter adopts the original and more geographical definition. + The 'extra-ecumenical' area comprises Gansu, Guangxi, Guizhou, Nei Monggol, Ningxia, Qinghai, Shaanxi, Xinjiang, Xizang and Yunnan. ++ The Third Front consists of Gansu, Guizhou, Henan, Hubei, Hunan, Shaanxi, Sichuan and Yunnan. # A dash indicates that the data are not available.

Source: Jao and Leung (eds.) (1986:3).

socialist organization. They stressed material rewards rather than ideological discipline to foster a work ethic. The 'radicals', following Mao's thought, took the opposite tack. Their Maoist solutions involved: accelerating the pace of collectivization and 'communization'; abandoning central control of production; downgrading material incentives; raising the rate of saving and investment; making use of local resources including coal, iron ore and surplus labour; and last, but not least, placing great emphasis on zeal and commitment to communist values as an essential prerequisite for industrialization under socialism. The ultimate stress in Maoist thought was placed on the masses and the belief that development was the task not of a technological elite but the entire population.

Mao's line was adopted and the 'Three Flag Policy' introduced: collectivization, the Great Leap Forward, and establishment of the People's Commune. Accordingly, small-scale industry in the countryside was expanded and local self-sufficiency was strongly advocated. In December 1958, the Party claimed that 375 million tonnes of grain was produced - more than double the output achieved in 1957. Gross industrial output had supposedly increased by 67 per cent.

The upsurge; however, was short-lived. Although the Great Leap Forward proceeded, it was bedevilled by administrative confusion. Indeed, the misuse of resources (including manpower) became increasingly serious. Subsequently, economic and organizational retrenchment had to be ordered. There was a great deal of uncertainty and hesitation throughout 1959. The Second Five Year Plan (1958-62) was abandoned in 1959 and doubts concerning Mao's economic policy were revived.

The termination of the Great Leap Forward in 1960 coincided with the withdrawal of Soviet aid and expertise, and a series of natural disasters. The result was devastating. In particular, the deterioration in food supply was most serious, as China went through her 'Three Bitter Years' between 1959 and 1961.

The sudden withdrawal of Soviet aid and technicians had profound repercussions on China's international relations. From 1960 onward, 'self-reliance' became one of China's prime slogans. Beijing's leaders tried to reduce all foreign influence in China, especially that of the other major powers (communist and non-communist). Adopting a do-it-yourself, bootstrap approach to development, China only imported what was considered absolutely necessary, such as food grain.

Urban policy also underwent drastic changes during this period. As the attention of Maoists was centred on the masses, the emphasis was shifted from urban-based industrial development to the rural sector (Kwok, 1981; Ma, 1981). The keynote of the Great Leap Forward was the introduction and expansion of small-scale industry in the

countryside via the People's Commune. Indeed, the Commune became characteristic of the Chinese approach to industrialization and, by implication, to urbanization. It was hoped that by 'planting' industries in rural areas, a spatially balanced and decentralized development would eventuate (Ma, 1981; Wertheim, 1977; Buck, 1981).

Correspondingly, the growth of existing large cities was contained. As asserted by Chen Yun in 1959, and echoed by Mao Zedong, 'more attention should be given to the key problem of balanced industrial distribution over regions where there are more medium and small townships and mineral resources' (Cao, 1985). The eventual merging of cities with the countryside was planned (Kwok, 1981). This new course of development, however, only brought about a limited degree of industrial decentralization of manpower. In terms of industrial output, the established urban centres remained dominant (Schenk, 1977; Ip and Wu, 1980).

Urban population continued to grow from 99.5 million in 1957 to 130.7 million in 1960, despite measures to curb rural-urban migration (e.g. population registration, rationing of basic commodities in the cities and repatriating recently-arrived peasants) and controls over long-distance travel. In view of the unresolved urban problems and outright economic failures, it was clear that there was an urgent need for changes in development policy. The 'Great Leap' finally gave way to the approach outlined by the pragmatists.

Recovery and Moderate Construction 1961-65

The great depression spanning 1959 to 1961 prompted the Chinese leadership to reconsider its economic policies. The utter failure of the Great Leap Forward led to the Maoist school of thought being pushed into the background. Instead, the 'pragmatist' school came to the forefront. It undertook a major revision of economic policies which set precedents for some of the policy changes in the post-Mao years.

Under the new policy, agriculture was declared to be 'the foundation' and industry 'the leading factor'. Simultaneously, central control was reasserted, and 'moderation' and 'proportion' were the watchwords (Howe, 1978). Emphasis was also given to the production of consumer goods, the market mechanism, the importance of profits, the necessity of material incentives, and the leadership of intellectuals and technologists.

The new policy led to a reallocation of priorities. In particular, a much greater emphasis was placed on industries relating to agricultural development. Thus, new investment was directed towards the so-called 'five small industries': agricultural machinery, chemical fertilizers, cement, coal, and iron and steel. A number of small hydroelectric power stations were also developed. The People's Communes were

reorganized. There was more planning and a revival of the incentive system. The policy of 'sanzi yibao' was implemented, involving the reinstatement of private plots, self-management of loss and gain, free markets, and a responsibility system. Thus, agricultural production was gradually restored to the 1957 output level.

By 1964 economic readjustment had been completed. The economy was in a reasonable state as the output of major sectors had recovered or exceeded their previous peaks. In December 1964, Zhou Enlai reported at the Third National People's Congress that the economy had recovered. He urged that trade be expanded and foreign technology studied. The pursuit of the 'Four Modernizations' - in industry, agriculture, defence, science and technology - was then proposed for the first time. In 1965, the improvement in China's economic position continued. Self-sufficiency in oil was achieved, and debts to the Soviet Union were finally cleared.

During this period, the dispersal of the 'five small industries' to small cities and commune centres had accelerated. Rural industrialization, coupled with the flourish of commercial activities organized by the communes, led to an increase in the size and function of small towns (Kwok, 1981). The introduction of agricultural activities to the cities, however, never became significant. Although the oil fields of Daqing were created to demonstrate 'urban-rural convergence', agricultural activities in the cities subsided, and urban communes were abandoned (Buck, 1981; Kwok, 1981). While the industrial, commercial and administrative functions of large cities remained, new resource development occurred in the remote and uninhabited areas of Qinghai and Xinjiang.

Meanwhile, rural-urban migration had declined because of severe government restrictions, the emphasis on agricultural development, the restoration of agricultural production to 1957 output levels, and the relaxation of rural policies. Further, recent rural migrants were sent back to their home villages. Thus, there was an absolute decline in the urban population between 1960 and 1966 of 29 million (Table 1.1). The decrease may have been exaggerated, however, as there was a change in the definition of urban population in 1964.²

Zhou Enlai's emphasis on trade expansion and the study of foreign technology stemmed from the realization that China was paying a high cost for its self-reliance policy. In the 1960s, the policy not only implied an import substitution and import minimization strategy, but also involved some isolation of Chinese science, technology and industry from the rest of the world. It also meant that China was cutting itself off

2. Between 1949 and 1963, urban population included the total population dwelling in cities and towns. Between 1964 and 1981, it only included the non-agricultural population residing in the urban areas, that is, excluding the *de facto* urbanites who held rural registration. Since 1982, the previous definition has been re-adopted (Chan and Xu, 1985).

from the world's capital markets and access to even short- or medium-term commercial loans. China's strong links with the Third World were confined to political and ideological connections. In these instances, China was the donor rather than the recipient. Zhou's advocacy signified China's renewed intention to boost economic activities through absorbing foreign technology. The importance of the coastal cities would undoubtedly have been revitalized. Unfortunately, the 'Great Proletarian Cultural Movement' stifled the modernization program before its inception.

The Great Proletarian Cultural Revolution 1966-69

The 'Liuist' approach to economic development worried Mao Zedong and created further polarization among the leaders. Mao believed that the retreat from the 'Leap' had led to corruption, selfish anti-socialist economic behaviour, and the strengthening of his enemies in the bureaucracy. Above all, Mao feared that too much stress was being put on material incentives in farming. Inevitably, this was leading to the 'growth of capitalist tendencies in the countryside' and thus undermining the base of the whole economic, social and political system.

By mid-1966, the revival of the economy finally allowed Mao to launch a campaign against his opponents and the state administrative apparatus without risking disastrous economic consequences. Hence, Howe (1978) has argued that Mao's Cultural Revolution was not launched to remedy economic problems but was primarily a political struggle. Nevertheless, economic issues were raised and the 'economic crimes' of the pragmatists condemned.

In 1969, the Ninth Party Congress formally brought the Cultural Revolution to an end. Its aftermath, however, may have lasted until as late as 1976. The Cultural Revolution had two major consequences: it interrupted industrial output in late 1966 and 1967, and it halted the tentative revival of foreign trade. The decline in industrial output affected export deliveries which, combined with the general xenophobia of the time, prevented any expansion of foreign trade.

As Mao's motive in inducing the Cultural Revolution was to stop the trend towards capitalist operations in the countryside, it was not surprising that the agricultural sector was affected by the movement. Prices for farm goods were pegged, incentive systems designed to encourage individual effort within production teams were abandoned and private plots, which played a crucial role in the recovery of agriculture after the 'Great Leap', were attacked.

Urban planning was completely disrupted as it was regarded as a product of 'revisionism', and guilty of 'productionism' and 'welfarism' (Xu, 1984a; Cao, 1985).

Hence, the trends of the early sixties - restraining the growth of big cities and developing medium- and small-scale cities - were continued to minimize urban-rural differences. Although small urban places received no special treatment, their development had been favoured since the effect of the Cultural Revolution was less strongly felt in the small cities. Nevertheless, this period witnessed the highest level of urban-rural migration because of the large-scale campaign of 'Xiexiang' (i.e. sending people to the countryside) (Buck, 1981). Another notable feature was the shift in priorities from national reconstruction to the Third Front (an area away from the coast and the land frontiers) due to defence reasons. Capital investment committed to this region reached an all-time high of 53 per cent during this period (Leung, 1986).

Two additional side-effects of the Cultural Revolution included the severe disruption of advanced education and training and the decline in the effectiveness of the planning system due to recurring waves of political factionalism. In a bid to rescue the country from the resultant calamities, Zhou Enlai was once more placed in the forefront of national affairs. His policy on this occasion was, however, much restrained by underlying political conflicts.

Moderate Socialist Construction 1970-76

In the early 1970s, agricultural output was deteriorating despite the emphasis of economic development on the rural sector. Population growth, however, was escalating due to the relaxation of controls introduced during the Cultural Revolution. Meanwhile, established industries, such as transport, iron and steel, and coal, were in need of modern technology. Thus, without a program of modernization, the entire industrial sector was in jeopardy. Investment was not only lacking in the industrial sector but also in agriculture. Also, the remarkable growth of China's oil industry called for a complementary petrochemical sector. The capital-intensive plants were, however, beyond China's capacity to produce from its own limited resources within the short time-span required.

Accordingly, Zhou's main program for the economy included a sharp attack on population growth and a revival of the policy of improving large-scale plants from abroad. This program was underlined by a more outward attitude to international relations (which led to renewed links with the United States and full diplomatic relations with Japan in 1972). The objectives of the Four Modernizations of 1964 were re-established. Positive policies for training and rewarding manpower initiated a revival of the universities that had been closed during the Cultural Revolution.

These proposals were formally approved at the National People's Congress in January 1975. At the time, however, it was obvious that there was a powerful faction

opposing Zhou's strategy. The conflict affected the acceptance of these plans at every level. Opposition to the plans was reflected in a campaign to 'criticize Lin (Lin Biao) and Confucius'. After Zhou's death in January 1976, this opposition faction fostered the second fall of Deng Xiaoping. The continuation of Zhou's policy had to await the death of Mao in September 1976, the subsequent downfall of the 'Gang of Four' in October 1976 and restoration of Deng to leadership in the summer of 1977.

As economic development was still concentrated on the rural sector, attention was focused on stimulating the growth of smaller urban places. Emphasis was also shifted from the Daqing model, where industry and agriculture were spatially integrated, to the Zhengzhou example, where urban industry assisted rural agricultural development. Consequently, there was a considerable expansion of production and population in medium-sized cities, while larger cities stagnated (Buck, 1981). Nevertheless, the overall growth in urban population was 11 million (Table 1.1).

The more outward-looking policy advocated by Zhou, especially the large-scale import program, had re-directed the focus of urban development to the coastal belt. As a result, the share of total capital investment in the coastal region increased from 32 per cent during the Third Five Year Plan (1966-70) to 43 per cent in the Fourth Five Year Plan (1971-75) (Table 1.2). This tentative revival, however, was undermined by a series of political upheavals. It was only after the recommencement of Deng's leadership in 1977 that coastal cities were stressed in official policies.

This brief account of economic and urban development of communist China, therefore, has illustrated that the dependence on foreign capital and foreign technology to modernize the country has a precedent in the early years of the communist regime, when China relied heavily on the Soviet Union in the 1950s. The sudden withdrawal of Soviet aid in 1960, including technological expertise, led to the 'closed door' policy of 'self-reliance' and 'self-sufficiency'. The desire to re-establish connections with the outside world germinated among the 'pragmatists' in the mid-sixties but was aborted by the Cultural Revolution. After the Cultural Revolution, there was an urgent need for externally-induced modernization and, consequently, the pragmatic advocates of re-establishing foreign economic relations gradually re-gained strength in the mid-seventies. Similarly, the emphasis on urban development had undergone some drastic changes. In the initial years, large cities had received the main attention. During the First Five Year Plan, large-scale construction of new key point cities took place in the interior - the bases for heavy industries. Nevertheless, as doubts concerning the appropriateness of the Soviet model were raised at the end of the Plan, attention began to shift to small and medium townships. Although such an emphasis has continued since the 'Great Leap', industries in these smaller settlements were redirected

to serve agriculture in the sixties and seventies. The cities were, therefore, not only 'productive', but simultaneously able to support the rural sector. Although the growth of big cities has been controlled since the sixties, the function of cities as industrial, commercial and administrative bases has remained. The proposal to develop foreign economic relations led to a brief revival in the importance of the coastal cities during the mid-sixties and early seventies. The full opening of the coastal belt, however, had to await the demolition of the influence of the 'radicals' in the Chinese leadership after the death of Mao in 1976.

ECONOMIC AND URBAN REFORMS SINCE 1977

In 1977, Deng Xiaoping returned to the leadership of the Chinese Communist Party. The subsequent December 1978 Third Plenary Session of the Chinese Communist Party's Eleventh Central Committee started a major relaunching of a large-scale modernization program. Indeed, Party Chairman Hua Guofeng reaffirmed the goal of turning China into a world economic leader by the year 2000. Deng's own vision is to improve the standard of living and raise the gross national income to US\$1,000 per capita by the end of the century. The prosecution of these twin objectives led to much needed institutional and structural changes within China and in the country's foreign policy. Thus China embarked on a series of reforms which included: re-establishment of its connections with the world economy; the exhibition of a more relaxed attitude towards capitalist economic policies; and the shift in the focus of urban development to large cities, particularly those in the coastal belt. The creation of the Special Economic Zones was a direct outcome of these reforms. After summarizing the general changes, attention is, therefore, focused on foreign economic policies, domestic economic policies and coastal urban development.

Rashness (1977-79) and Readjustment (1979-)

Following the Party's Eleventh Central Committee in 1978, China quickly reformed its foreign economic policies to facilitate a rapid expansion of international trade, the acquisition of foreign investment and technology, and a shift to a positive attitude towards foreign aid and loans. Simultaneously, domestic economic reforms took place. These included a decentralization of economic management, changes in the wage system to enhance work incentives, and the formation of a new agricultural policy to increase productivity. As well, related legal and educational reforms were implemented. Specifically, greater emphases were placed on stimulating market forces, improving technical expertise and generating economic interdependence (i.e. local specialization in preference to self-sufficiency). These new measures have encouraged large city

development, particularly within the coastal belt, and stimulated the growth of small towns - an outcome of rapid industrialization and commercialization of the rural sector. Although these reforms have produced better economic results within China, the policy has fallen short of the country's revised but still ambitious modernization goals. Owing to inadequate assessment and insufficient awareness of the dangers involved in the pursuit of 'high speed and gigantic construction', China overextended its foreign purchasing commitments and ability to manage imported technology (Davis, 1979).

A reassessment of China's ten-year economic plan (1976-85) in December 1978 and February 1979, therefore, debated and adjusted the goals of modernization in the light of the country's capacity to repay foreign loans. Consequently, the Second Plenary Session of the Fifth National People's Congress, held in June 1979, ordered a sweeping cut-back in capital construction projects and in investment in the steel industry. Instead, the national economic plan shifted its focus to enhancing agricultural development and light industry. The rationale for the shift was based on the country's desire to satisfy the needs of ordinary people through an increase in agricultural and light industrial production (*Financial Review*, 3 June 1981).

In his report to the Fifth National People's Congress in 1981 - the first year of the Sixth Five Year Plan (1981-85) - Prime Minister Zhao Ziyang reaffirmed the policy of economic readjustment and the retrenchment and the redirection of the plans first announced in 1979. Zhao anticipated that during this period of readjustment (1981-85), rapid growth would be impossible and the investment component of the national income would be reduced. Nevertheless, the 'open door' policy towards foreign investment has continued - a strategy worthy of more detailed examination.

Foreign Economic Policies

The renewed modernization program incorporated Deng's desire, first evident in the early sixties, of importing 'truly advanced' technology for inducing rapid economic development in the country (O'Leary, 1980). The large-scale import of equipment and plant, however, has necessitated a corresponding revision of the country's willingness to draw on foreign exchange. Thus, a positive attitude has been extended towards foreign credit, and liberal trade policies and foreign investment regulations have been developed. As the trade and investment policies are central to the creation of Special Economic Zones, their main features are discussed in more detail.

Foreign trade policy. Since the renewed pursuit of modernization in 1977, an innovative and more aggressive approach to world trade has been adopted, involving more flexible and pragmatic policies. In 1981, Zhao stressed in the Fifth National People's Congress that "in economic work, we must abandon once and for all the idea of

'self-sufficiency'" (*Renmin Ribao*, 14 December 1981). Nevertheless, as emphasized by Donnithorne (1981), this does not mean that China is pursuing a policy of export-led growth. In essence, she is still practising a policy of import-substitution.³

China has also become more selective in its range of imports since the emphasis on production has shifted from heavy industry towards light industry and agriculture. Accordingly, greater preference has been given to light industrial equipment and agricultural technology.

Consistent with these changes China has abandoned its 'take-it-or-leave-it' approach to international trade by paying greater attention to exports. Not only factories and bases for manufacturing products solely for overseas use are to be established, Special Economic Zones have been developed. This process has been facilitated by allowing some enterprises and local authorities to retain a share of foreign exchange earned from exports of goods, for the explicit purpose of enabling them to import new technology direct from overseas. In this way, China hopes to pay for its imports of foreign technology and equipment through export receipts.

Foreign Investment. The encouragement of foreign investment by post-Mao leaders is unprecedented. This change has involved the development of a variety of forms of obtaining, using and repaying foreign capital. These measures include joint ventures (minimum foreign equity 25 per cent), production sharing ventures involving risk capital (e.g. joint China-Japan offshore oil development in the Bohai Gulf), 'production-buy-back' or compensation trade schemes (i.e. payment for the import of machinery and the cost of processing is made from the produce of the machinery), and barter arrangements. All of these schemes are designed to acquire foreign technology at the lowest possible cost and with minimum recourse to scarce foreign exchange reserves. Hence, the greater reliance on foreign technology to modernize the country has not only required increased export receipts, but a diversification of financial arrangements to induce foreign capital. Internally, China has also introduced reforms to enhance productivity and efficiency.

Domestic Economic Policies

Domestic economic reforms have reflected the Chinese government's new adherence to methods of remuneration based on performance and incentives, particularly for industrial and agricultural workers. Although some of these new measures were

3. According to Bucknall (1981:7), the current trade policy is still consistent with long-term 'self-reliance'. China is prepared to borrow from overseas, expand trade, and accept foreign investment on its soil in the short-term to achieve its long-term objectives.

implemented during the Recovery and Moderate Construction Period (1961-65), the present reforms have been of a more comprehensive nature. As these reforms have not been fully digested, there is still room for experiments directed at fine-tuning the new labour policies and agricultural reforms.

Labour policies. The basic aim of the new labour policies introduced since 1978 has been to replace both the politics-first and hierarchy-oriented industrial enterprises with a new type of firm which is rational, efficient and production-oriented (Shirk, 1981). The experimental measures taken are the examination system used for labour recruitment and job allocation, wage distribution according to technical skills and work performance, and the new point systems and piecework rates and quotas devised to determine wages and bonuses, including a trial 'enterprise-fund' to provide a special year-end bonus to encourage efficiency and production. Also greater attention has been given to labour discipline (Shirk, 1981; Davis, 1979). According to Shirk (1981), these new measures have created difficulties. Initially, the meritocratic norm, 'to each according to his work' was difficult to translate into concrete rewards for all types of workers; the fairness of different criteria often being disputed particularly as managers handed out bonuses to enhance their own popularity rather than productivity. Also, piecework-type bonuses have reinforced the economic and status discrepancy between production workers and support workers. In addition, the new efficiency-oriented policies have put the technical cadres, skilled and younger production workers at an advantage and other political-administrative cadres, unskilled, older and support workers at a disadvantage (Shirk, 1981). Although productivity has been raised and living standards improved through the reforms, the Government is still experimenting with new labour policies, particularly as the new methods have engendered socio-economic stratification. Agricultural reforms, however, have been implemented more smoothly.

Agricultural Policies. The agricultural reforms have also been aimed at raising productivity and efficiency. Much attention has been directed to raising State procurement prices for agricultural products and reducing the prices of agricultural inputs, such as fertilizers, farm machinery and insecticides. The government hopes that these price reforms will provide an incentive to increase food production, raise peasant and commune incomes, and generate increased rural demand for consumer goods (Davis, 1979; Howe, 1982).

Other measures include: enlargement of private farming possibilities; permission for sideline occupations; encouragement, depending on local conditions, of widespread diversification into other foodstuff, non-foodstuff and forestry development; and finally the right of peasants to sell what they produce, including grain, at village markets.

These measures have been bolstered by the introduction of the production responsibility system (which seeks to motivate farmers by rewarding them for completing specific tasks). This system has been matched by that of 'full responsibility to the household' ('baogan daohu', i.e. all decisions devoted to farmers). Accompanying these measures has been the development of agricultural collective enterprises to integrate production with food processing, packaging, transport and marketing. These enterprises are designed to assist the distribution of processed and perishable foodstuffs to the urban market, to increase productivity and to raise agricultural growth rates. On the whole, the agricultural reforms have emphasized productivity, monetary incentives, efficient management, specialization of crop planting and diversification of rural activities, particularly in the better-endowed areas (Davis, 1979; Howe, 1982; Crook, 1985). Thus, both the post-1978 labour and agricultural reforms have triggered a swing from the dominant Maoist non-material and egalitarian incentives to the capitalist material and performance incentives. The pursuit of higher efficiency, however, has produced socio-economic differences with the mass of the population - a phenomenon most evident when comparing the situation of coastal residents with those of the interior.

Coastal Urban Development

Since the late 1970s, two divergent views on the current focus of China's urban development policies have emerged. One school argued that the avoidance of over-concentration in big cities should be continued, and small cities and towns developed to expand commune and brigade-run enterprises and absorb surplus labour released by agricultural mechanization. The other school has argued that, in the long run, urbanization in China should encourage both the development of integrated, modern industrial cities of all sizes and towns based on commune and brigade-run enterprises. The present emphasis, however, is placed on the construction of big and medium-sized cities. The reasons for this policy were threefold: small cities are unable to provide a full range of urban functions; the development of smaller cities and towns was dependent on further metropolitan development; and past strategies of encouraging smaller cities and towns to develop in isolation has been riven with failure (*Beijing Review*, 17 March, 1980). Indeed, overseas scholars (e.g. Ip and Wu, 1980; Leung, 1986) have also discerned that the returns of capital investment in interior cities in China have been inefficient. Although the interior received a larger proportion of capital investment, the gross value of industrial output and the volume of revenue generated was less than returns in the coastal region (cf. Table 1.2 and Table 1.3). Given that economic efficiency was to be the overriding goal, the shift back to the 'core' or coastal area was inevitable.

Table 1-3: The Gross Value of Industrial Output by Selected Area, 1953-83
(Money amounts in million)

	1952		1957		1974		1979		1982		1983	
	Rmb	Per cent	Rmb	Per cent	Rmb	Per cent	Rmb	Per cent	Rmb	Per cent	Rmb	Per cent
National	33,770	100	69,798	100	344,965	100	-	100	557,745	100	626,441	100
Coastal**	23,467	69.5	45,293	64.9	230,022	66.7	-	60.7	333,356	59.8	366,748	59.5
Inland**	10,303	30.5	24,505	35.1	114,943	33.3	-	39.3	224,389	40.2	249,693	40.5
Extra-ecumenical**	1,968	5.8	5,342	7.7	33,945	9.8	-	10.5	55,974	10.0	62,435	10.1
Third Front**	5,081	15.1	13,371	19.2	62,577	18.1	-	23.0	131,090	23.5	146,408	23.8

Notes: * A dash indicates that the data are not available.

** See Table 1.2 for definition.

Source: Jao and Leung (eds) (1986:5).

Table 1.2 shows that the coastal area has been given development priority by the government since the mid-1970s. In 1979, its share of total capital investment reached an all-time high of 48 per cent. As noted by Leung (1986), the reorientation towards the coast has been based primarily on considerations of economic efficiency. Further, the shift in emphasis to foreign investment, technology and economic relations has highlighted the importance of the coastal belt. Not only were four Special Economic Zones created on the southeast coast in 1980 but fourteen other coastal urban centres and Hainan Island were declared as open cities in May 1984 (Fig. 1.1). Premier Zhao's rationale was that China's economic reforms would multiply and spread from the Special Economic Zones, via the economically developed coastal cities to the interior. The Zones and coastal cities were intended to boost the 'open door' policy by enhancing foreign economic relations through the absorbed foreign capital, technology, management skills and economic exchange and inducing the long-run economic development of smaller cities in the interior.

Hence, the ultimate aim of the socialist modernization has been directed at satisfying the needs of the masses. Foreign technology has been considered crucial for rapid modernization. Large-scale imports of foreign plant and equipment, however, have necessitated an expansion of exports and capital imports (by allowing foreign investment) to improve the country's access to foreign exchange. Domestically, the major channels of achieving modernization have been the gradual adoption of the performance-oriented labour policy and a new agricultural policy, stressing monetary incentives, efficient management, specialization in farming and diversification of rural activities. These new measures have created social and economic disparities among the workers and farmers. Nevertheless, the outward-looking measures have shifted the focus of urban development from the interior to the coast. This re-emphasis on coastal cities is regarded as economically more efficient for generating capital returns, geographically more conducive for widening and deepening foreign economic relations, and strategically more capable of inducing development of the smaller urban settlements. It was against this economic and urban background that the special economic zones policy was formulated. Given the pioneering role of the Zones in the modernization campaign, we need to investigate their emergence, general objectives and roles before discussing the Shenzhen Special Economic Zone in particular.

SPECIAL ECONOMIC ZONES: EMERGENCE, OBJECTIVES AND ROLES

The above review has demonstrated that China's current quest for rapid economic development through the means of foreign technology and investment is but a reincarnation of past policies. Although the special economic zone policy appears to be a

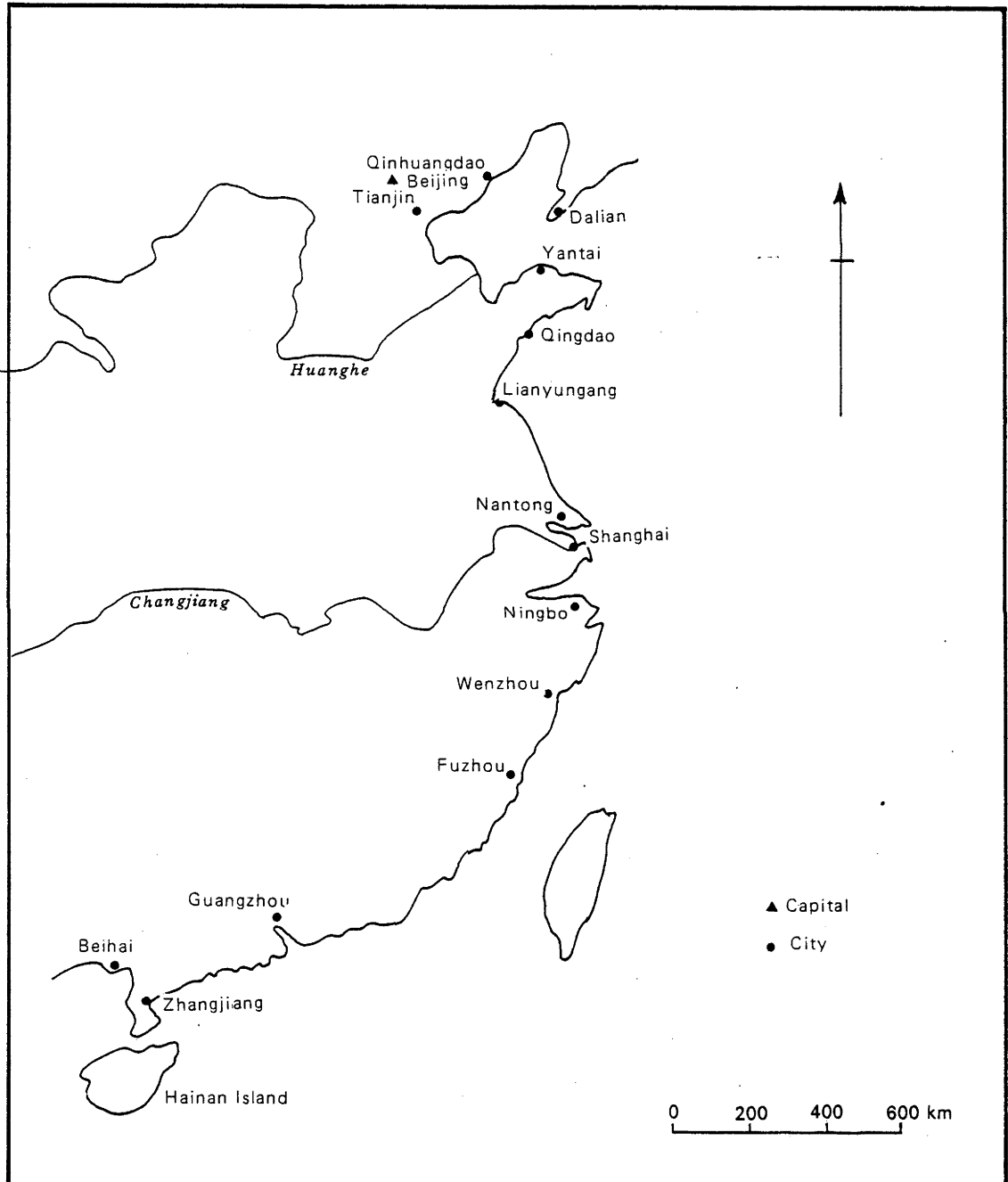


Figure 1-1: Locations of the fourteen open cities.

new move, its characteristics can be uncovered among China's past development policies. China's development history, therefore, has to be distilled to provide an outline of the emergence of the Zones, the establishment of their overall objectives and the creation of the Shenzhen Special Economic Zone in particular.

Emergence

The creation of Special Economic Zones was an immediate outcome of the post-1978 economic and urban policies, but the concept of 'special economic zone' can be traced to the earlier and less sophisticated notion of 'export commodity production base'. The original concept was advanced by Zhou Enlai in 1960 and established as an outward-looking policy in 1971-72 (*The China Business Review*, March-April 1980:29).

The export bases were designed to be under firm central control. Local Foreign Trade Bureaus and sub-branches of National Foreign Trade Corporations were established to actively intervene in agricultural and industrial production within the bases in a concerted effort to stimulate exports. Unified purchase contracts were designed to commit factories and communes to engaging in exports - an activity that had, at times, only been intermittently profitable.

In 1973, China's first 'unified export commodity production base' was established in Foshan prefecture, opposite Hong Kong and bordering Macao in the West River district of Guangdong Province. Foshan has been the most successful of the sixteen bases established by the Export Commodity Production Bureau of the Ministry of Foreign Trade. The value of goods supplied to the state for export by Foshan's thirteen counties and municipalities has enjoyed an average annual growth of almost 27 per cent over the last seven years and topped Rmb 700 million in 1979 (*The China Business Review*, March-April 1980:29-30).

Upon the establishment of the 'open door' policy in 1978, China began to consider setting up joint ventures with foreign companies as a means of 'capturing' foreign capital and acquiring advanced technology for development. Initially, it looked first to Foshan and the adjoining peninsula of Macao for land where foreign investors could be permitted to establish their factories. The first joint venture, the Xiangzhou Textile, was located in Zhuhai, a county adjoining Macao. Since then, export-oriented activities have blossomed in Zhuhai.

In 1979, it became apparent that China intended to advance one step further and set up zones designed and developed especially to meet the needs of its modernization policy: to import foreign technology, to earn foreign exchange, to attract foreign capital and to acquire efficient production policies. Hence, Shekou, situated within the county

of Baoan (Shenzhen), was originally designated by the State Council as an 'Industrial Zone' on 30 January 1979.

In March 1979, the administration of Zhuhai and Baoan County was restructured by the Guangdong provincial government. The two areas were transformed into municipalities under the direct control of Guangdong Provincial Government - an essential step in minimizing bureaucratic proceedings and increasing the power of decision-makers (e.g. the Shenzhen Import Office may approve foreign investment with up to Rmb 2 million foreign equity). This new administrative arrangement also enabled larger and more direct budgetary allocations for infrastructure development. The Shenzhen Capital Construction Committee was formed to plan industrial improvements in Shenzhen and to outline measures for using capital, technology, equipment, and raw materials that could be drawn from Hong Kong.

A few months later, in a State Council directive of July 1979, Guangdong and Fujian Provinces were authorized to take extraordinary measures to develop foreign trade and investment: these included the establishment of special export zones similar to export processing zones in other countries. In August of the same year, Shantou Municipality (within the Province of Guangdong), one of China's early foreign trade ports, was declared a 'trade and investment zone'. In September 1979, Vice-Premier Gu Mu declared that Special Economic Zones were to be established in Shenzhen and Zhuhai where compatriots from Hong Kong and Macao, or foreign investors, could participate in joint ventures or run various enterprises independently. In December 1979, the Guangdong Provincial People's Congress passed a draft of regulations on Special Economic Zones which was passed by the State Council with some amendments in August 1980 (Appendix I). By then, the Special Economic Zones in China were officially declared. The Guangdong Provincial Administrative Committee in Charge of the Zones was set up to exercise the power of unified management over all Zones on behalf of the Guangdong Provincial People's Government.

Four Special Economic Zones were announced. Three of them have been situated along the southeast coast of Guangdong Province: Shenzhen (327.5 sq km) adjoining Hong Kong; Zhuhai (6.8 sq km), close to Macao; and Shantou (1.6 sq km). The remaining one has been located at Xiamen (2.5 sq km) in Fukien (see Fig. 1.2). These areas had been operating on an unofficial basis for more than a year before regulations were formally proclaimed in August 1980 - the Shenzhen Zone being the first to undergo full-scale development. Functionally, these Zones can be defined as

special management areas demarcated for [the purposes of:] practising more liberal and flexible policies and measures; attracting foreign capital with more concentrated efforts; using various methods to advance economic co-operation

with the capitals of foreign businessmen, overseas Chinese and compatriots from Hong Kong and Macao; and experimenting on all aspects of socialist construction (Sun, 1982:21).

What the above definition fails to incorporate is the concessionary nature of the Zones. As stated in the Regulations, preferential treatment, similar to those of other export processing zones, was granted to overseas investors. This feature marks the major departure of this strategy from the previous conservative policy towards foreign capital, and hence characterizes the 'boldness' of the zones policy. In view of this unprecedented concession, the objectives of the Zones need to be examined carefully.

Objectives of the Zones

Special Economic Zones are not being developed for solving the employment problem, nor should they go solely after increases in output. Rather, they were areas demarcated for attracting enterprises of high technological and knowledge content through the offer of preferential treatment. They are to serve as windows of advanced production, technology and management methods of the world (Zhao Ziyang, *Shenzhen Special Zone Herald*, 14 November 1983).

Premier Zhao has succinctly outlined the Zone's objectives, and their relative importance. Their major functions are to import technology and to serve as platforms for understanding and testing either capitalist or new hybrid economic policies. Another major objective, which was not included by the above quotation but has been emphasized elsewhere (e.g. Zhang, 1982; Sun, 1982; Liu, 1985), is to act as 'showgrounds' displaying post-Mao liberal economic policies. Its fundamental objective of inducing overseas technology through widened and deepened foreign economic relations deserves primary attention.

Foreign economic objectives. As the Zones are destined to import high technology from overseas, to tap external capital sources and to manufacture goods for export, their hitherto economic roles parallel current foreign economic policies, except for the acquisition of credit. While the use of the Zones as 'express locomotives' to propel China towards modernization is recent, the desire to develop the country rapidly was manifested as early as 1954. The delays in modernization accentuated the desire to modernize because the technological gap between China and the rest of the world had widened markedly over time. Although the creation of the Special Economic Zones seems to be a product of the present leadership, the reasons for their inception can be traced to the past failure of the government to keep pace with technological innovations. Thus, in view of the long-delayed modernization, the undertaking of a bold step is necessary. Thus, the present leadership regards the Zones as a powerful means of raising technological and economic levels of China to international standard - the dream being

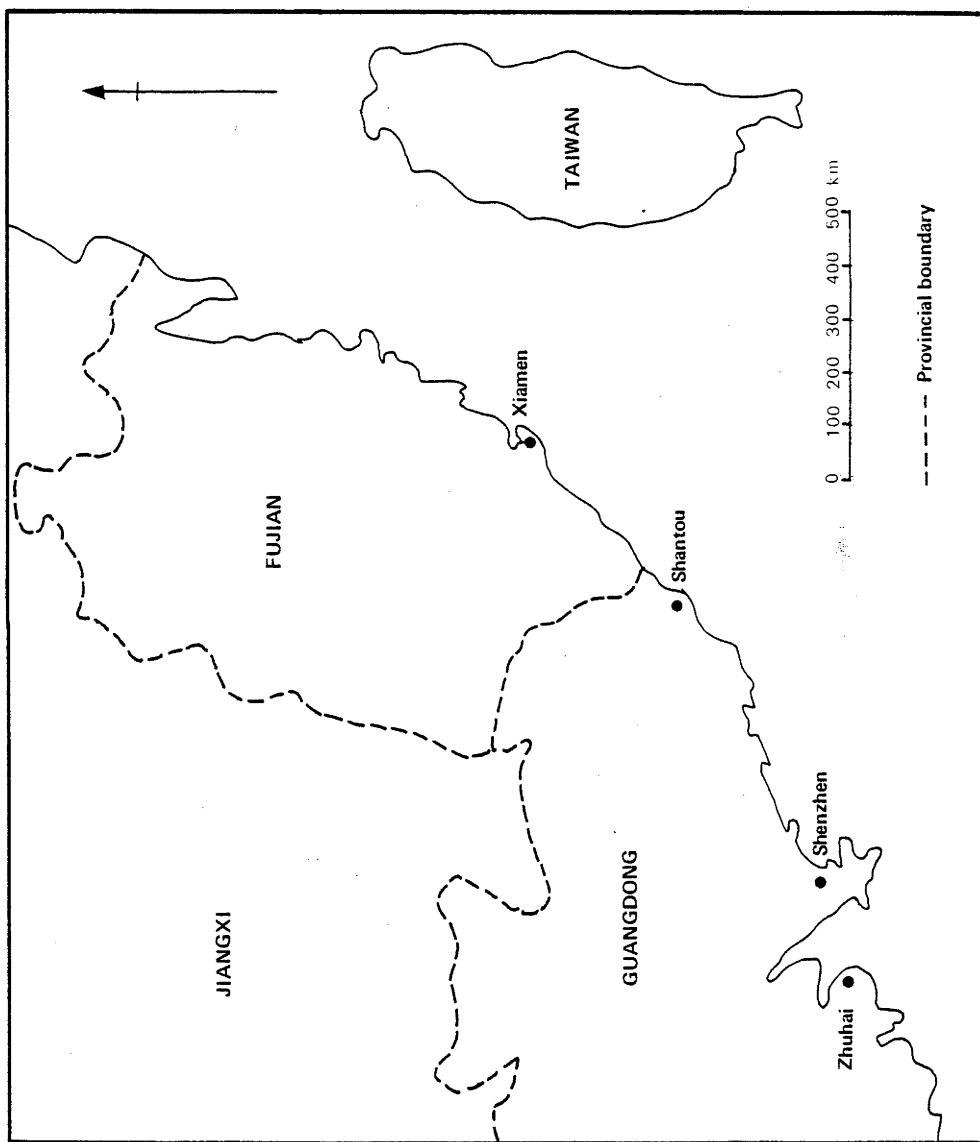


Figure 1.2: Locations of the four Special Economic Zones.

that the country will become a world economic leader by the year 2000. In view of this grand objective and the huge population of China, the aim of creating employment seemed insignificant (Wang, 1981). Although increased employment opportunities were a by-product of the establishment of the Special Economic Zones, in China's case, increased employment was clearly recognized as a means to an end (access to capital-intensive facilities, know-how and world markets) rather than an end in itself. In contrast, the laboratory function of the Zones aimed at improving domestic economic policies by transplanting appropriate foreign economic strategies received much attention.

A test-ground. The experimental nature of the Special Economic Zones is certainly significant to the planned trajectory of Chinese modernization. The Special Economic Zones provide venues where the pulse of the international economy can be felt. All new measures of foreign investment are practised and concentrated in these localities. The foreign investors are also allowed the maximum freedom to run their business in a non-communist way. They can for example adopt their own wage policy. By closely working with overseas investors on their own ground, it is hoped the Chinese can *observe, learn, and test* foreign management skills and labour policies. Further, it is envisaged that the favourable results from these laboratories will gradually filter to other areas of the country. In other words, these Zones are pacesetters for the socialist modernization of China. They have also been given a 'showground' function to demonstrate the openness of the present leadership to capitalist measures.

A showground. The establishment of a market economy in the Zones demonstrates to the world that China is determined to participate actively in the international economy. As noted, they stand as testimony to Chinese residing in Taiwan and Hong Kong that capitalist economic practices are tolerated by the present communist regime - a gesture towards national unification. In particular, the timely creation of the Shenzhen Special Economic Zone at Hong Kong's border has underlined the political and economic importance of the Zone - a bridgehead for the future incorporation of Hong Kong into the Chinese nation.

The overall function of the Zones, therefore, has been in Deng Xiaoping's words in early 1984: "to serve as the windows of technology, management, knowledge, and 'open door' policy" (*Yearbook of China's Special Economic Zones 1984:102-3*). In late 1984, Premier Zhao Ziyang summarized the function of the Zones and the fourteen coastal cities as hubs for foreign and domestic interchange, like the 'two sides of a fan' (*Shijie Jingji Daobao*, 31 December 1984). Given its size, location and scale of economy, the Shenzhen Special Economic Zone has been entrusted with some additional functions; these functions need to be examined in greater detail.

Unique Roles of Shenzhen

The uniqueness of Shenzhen lies in its additional urban roles engendered by its size, location, and scale of economy. The creation of Shenzhen into a big coastal city covering 327.5 sq km was a strategic move designed to achieve modernization. It meets specified domestic and foreign objectives through its role as an international city. Since 1978, its urban roles have been to function as an international city; to serve as a 'growth pole', and to develop into a 'productive' city, that is, a major industrial centre. Its function as an international city is primary and, therefore, deserves initial attention.

An international city. Since the inception of the 'open door' policy, the coastal cities have been regarded as geographically conducive to attracting foreign technology and investment. In the case of Shenzhen, this externally-oriented function is inherent in the character of its export processing zone function. In fact, the choice of Shenzhen was primarily based on its geographical location and its connections with overseas Chinese. Its close proximity to Hong Kong enables it to use Hong Kong's infrastructure, international transport and communication connections and skilled labour. In turn, Shenzhen provides land-starved Hong Kong industrialists with new premises and cheap labour. By offering long-term leases, Shenzhen also aimed to capture Hong Kong's surplus capital, based on Shenzhen being the homeland for over 100,000 Chinese in the Hong Kong, Macao and overseas Chinese communities (*Zhongguo Jingji Tegu Shouce*:6). Both the proximity to Hong Kong and the ethnic ties were expected to facilitate the absorption of foreign technology, management skills and investment. Although the Hong Kong capital and technology are not considered as the ultimate targets, the city can well serve as a springboard to international capital. By transferring technology and tried and tested management policies to the interior, Shenzhen will be expected to play 'the role of radiation, like the two sides of a fan'. Hence, the generation of the 'growth pole' spin-offs are complementary to its role as an international city.

Growth pole effects. In Zhao Ziyang's 1982 report to the Fifth Plenary Session of the Fifth National People's Congress on the Sixth Five Year Plan, he spelt out the regional role of the Special Economic Zones. Basically, 'a number of economic zones should be formed in the country, with developed cities as their centres, to organize and co-ordinate the economic activities of the entire outlying rural areas as one unit' (Cao, 1985:6). Apart from functioning as a regional centre, the Shenzhen experiment carries a greater national significance. As a city endowed as an export processing zone, Shenzhen is expected to absorb and filter production technology and management skills, and to generate revenue, especially foreign earnings. The major aims of the Shenzhen Zone as a

growth pole have been to induce development by filtering foreign technological know-how and fostering foreign interaction with the domestic area. This 'window function' was to be mediated through industrial activities.

An industrial city. As commercial cities have been condemned as 'consumerism' since the beginning of the communist rule, industrial activities have become the targetted economic activity in urban places. Specifically, the export processing zone policy has been to lure foreign investment for industrial activities. Hence, Shenzhen's focus on industry cannot be overstated. Although Article Four of the *Regulations on Special Economic Zones in Guangdong Province* states that 'all items of industry, agriculture, livestock breeding, fish breeding and poultry farming, tourism, housing and construction, research and manufacturing ... can be established with foreign investment or in joint venture with Chinese investment', the subsequent master plans have explicitly placed the emphasis on industrial activities. The *Shenzhen Special Economic Zones Master Outline Plan* and the *Shenzhen Outline Social and Economic Plan* released in 1982 stated that Shenzhen would develop into a major advanced industrialized city by the year 2000 (*Asian Wall Street Journal*, 20 September 1982). By focusing on high technology and capital-intensive activities, the Zone should be able to attract advanced technology which can be subsequently transferred to the interior - the granting of preferential treatment to investors should consolidate this strategy.

The exploration of the events that led to the eventual creation of the Zones has demonstrated that the move had been gradual rather than abrupt. The concept of constructing export bases was initially established in 1960, and subsequently put into practice in 1973 when more outward-looking economic policies were implemented. While the export bases only aimed at earning foreign exchange through the export of manufactured goods, the creation of the Shekou Industrial Zone in January 1979, featured with the granting of preferential treatment, was targetted for both overseas technology and investment. Thus, the creation of the Shekou Zone, and the four subsequent Special Economic Zones, has been a strategy that has encouraged the importation of technology and the absorption of foreign capital and exchange. Also, the transfer of technology has included the acquisition of management skills for increasing productivity and efficiency. Indeed, the adoption of the zone strategy has been regarded by the Chinese leadership as necessary because of the long-delayed modernization and the technological disparity between China and the rest of the world. Hence, the overall objective of the Zones has been to induce rapid development so that the goals of modernization can be realized. Specifically, the unique roles of Shenzhen relate to its urban function. Due to its coastal location, its close proximity to Hong Kong and its ties with overseas Chinese, Shenzhen was destined to become a big coastal city, capable of producing multiplier effects at regional and national levels.

RESUME

By examining past and present development strategies of Communist China, this Chapter has attempted to highlight the full significance of the special economic zone policy in the country's modernization drive. This reliance on foreign capital and technology to generate development - the ultimate goal of the zone policy - was an unprecedented phenomenon until the early seventies. Hitherto, all efforts had been restrained by either international disputes or internal chaos and political factionalism. Thus, modernization was much delayed. By 1970, the need to raise the economic and technological levels had been recognized by the government.

The emphasis on re-establishing foreign economic relationships, however, did not gain momentum in the mid-1970s. Even its advocacy was still undermined by political power struggles. This 'yo-yo' effect has been reflected in the pace and direction of urbanization since the 1950s. The pursuit of the Soviet model in the 1950s promoted the development of large cities - coastal and interior. Since the 1960s, however, their growth has been controlled. Nevertheless, their functions as industrial, commercial and administrative centres have persisted. Although the coastal cities were again briefly spotlighted when more outward looking economic policies were adopted in the mid-sixties and early seventies, their full revival had to await the inception of the 'open door' policy in the late 1970s and early 1980s.

The full 'open door' policy followed the death of Mao Zedong, the removal of the leading radicals in 1976, and the rehabilitation of Deng Xiaoping in 1977. By December 1978, a vigorous modernization program was adopted which featured the large-scale importation of foreign technology and investment, and the employment of material and performance-oriented production policies. These measures were expected to boost the much delayed economic development. An inevitable fall-out was the emphasis on developing the coastal areas because they were more conducive to the realization of modernization on economic, geographical and strategic grounds. The location of the four Special Economic Zones in the coastal belt was, therefore, a direct consequence of the recent direction of economic policy.

The creation of the four coastal Special Economic Zones - a revised version of the 'export commodity production base' concept - was part and parcel of China's 'open door' policy: to expand exports and to encourage the import of foreign technology and associated skills. By offering preferential treatment to foreign investors, the Special Economic Zones were the beachheads for external capital and technology. The Shenzhen Zone, in particular, was accorded a pivotal role as it was expected to establish the most

fully-developed economy and well-developed urban area. The viability of this development strategy - widely adopted by developing countries - is arguable. Hence, the performance of the Shenzhen Zone has to be assessed in the light of the general export processing zone debate.

CHAPTER 2

EXPORT PROCESSING ZONES: A CONTROVERSIAL DEVELOPMENT POLICY

The major concern about Shenzhen Special Economic Zone is whether it has the ability to fulfil its declared objectives of inducing economic and social development within China. A similar strategy - the creation of free trade zones and export processing zones - has been widely adopted by the developing countries to promote industrialization since the mid-1960s. Their success, however, has been varied and controversial (see, for example, Fröbel *et al.*, 1977; UNIDO, 1980; Spinanger, 1983; and Wong and Chu, 1984). Thus, before assessing the extent to which Shenzhen has fulfilled its stated objectives and roles, it is useful to review the performance of other free trade zones and export processing zones. Such a review will provide a reference point for assessing the achievements of the relatively new Shenzhen Zone.

A very basic question has to be raised at the outset: what are free trade zones or export processing zones? Once this matter has been resolved, further questions can be raised: where have they been located; what have been their relative rates of growth; and what have been their objectives? We are then in a position to tackle the key question: how successful have they been in inducing economic and social development within the host countries?

In tackling these questions, this Chapter traces the origins and development of free trade zone and export processing zone phenomena. It then reviews the main literature on the zones to distil the debate pertinent to their viability as an effective development strategy. Finally, the main differences between the two opposing schools of thought will be summarized. In the final analysis, the ability of the zones to achieve their specific long-term objectives - the formation of domestic linkages and the transfer of technology - will decide the degree to which they constitute a successful development strategy.

EXPORT PROCESSING ZONES: ORIGIN AND DEVELOPMENT

Free Trade Zones and Export Processing Zones

The origins of the export processing zones and the Chinese variant, the Special Economic Zones, can be traced to the 'Free Ports' or 'Free Trade Zones' which had been

established on major trade routes since the eighteenth century. These foci of commercial activity included Gibraltar established 1704, Singapore 1819, and Hong Kong 1842 (Currie, 1983). The idea was rejuvenated after the Second World War when the Shannon Industrial Zone was established in Ireland. Following this successful example, a policy of setting up a 'free trade zone' for industrial use has been adopted by a string of developing countries since 1960. This industrial zone is generally designated as an 'export processing zone'. The United Nations Industrial Development Organization (UNIDO) has defined the export processing zone as:

a relatively small, geographically separated area within a country, the purpose of which is to attract export-oriented industries, by offering them specially favourable investment and trade conditions as compared with the remainder of the host country. In particular, the export processing zones provide for the importance of goods to be used in the production of exports on a bonded duty free basis (UNIDO, 1980:6).

In practice, not all export processing zones are concerned solely with industrial activities; many are concerned with commercial and other activities. For example, the Bataan Zone in Indonesia aims to supplement industrial involvement with tourist activities. In the recently established Chinese Special Economic Zones, foreign participation is invited to all sectors including services and infrastructural construction, in addition to industrial activities. The matter of defining an export processing zone is further complicated in Singapore and Hong Kong where there are no designated export processing zones as such. Nevertheless, both locations offer duty-free import of raw materials, and therefore virtually operate as *de facto* export processing zones. Not surprisingly, the World Export Processing Zone Association (WEPZA) has adopted a much wider definition. It states that:

All government authorized areas such as free ports, free trade zones, custom free zones, industrial free zones or foreign trade zones, or any other type of zone as the council may from time to time decide to include (Article One of the *Statutes of the World Export Processing Zone Association*).

This catholic definition is adopted in this study to include all zones of the aforementioned nature and they will be generally termed as export processing zones, except the Chinese Special Economic Zones.

Geographical Distribution, Growth and Objective

Since the early 1960s, the number of countries offering zone facilities has increased rapidly. There are now at least seventy-three separate facilities in thirty-six developing countries and territories (Table 2.1). More are in the process of development (Currie, 1983). As shown in Figure 2.1, these zones are scattered throughout the world and found in countries which differ in size and types of economy.

In 1983, the most important concentration in terms of employment creation was in Asia. Currie (1983) has noted that these Asian zones were located in twelve different countries and territories and account for 63 per cent of total zonal employment. The Caribbean and Central America ranked second in importance as they had 27 per cent of total estimated employment in export processing zones. In comparison, the zones in the Mediterranean, the Middle east, Africa, South America and the Indian Ocean region were relatively insignificant in 1983.

Export processing zones became economically significant in the mid-1960s. Prior to 1966, only Hong Kong offered facilities similar to an export processing zone. Between 1966 and 1969, however, industrial estates offering duty-free concessions were established in eight countries. Simultaneously, Singapore shifted its policy from import substitution to export-oriented industrialization to follow Hong Kong's example. A further twenty-three zones were constructed in ten countries or territories between 1970 and 1974 - eight of these new zones were in 'virgin' territories. Between 1975 and 1979, twenty-one more zones came into operation, including eleven countries or territories which had previously not had this facility. The trend has continued into the 1980s with the construction of fifteen zone facilities in nine countries between 1980 and 1983 - a figure which included the Special Economic Zones in China (Currie, 1983). Thus, there has been a mushrooming of export processing zones since the 1970s, signifying a widening interest among developing countries in establishing export processing zone facilities as an integral part of their development strategies.

The expected contribution of export processing zones to national economy can be deduced from the reasons given for establishing export processing zones as expounded by the United Nations Industrial Development Organization (UNIDO) - an organization responsible for the promotion of the zones and assistance in their planning and construction:

The creation of an Industrial Free Zone is commonly considered by a combination of several reasons, such as:

- (a) a part of an overall industrial development program of the country or of a certain region of the country;
- (b) a measure for solving the employment problem by the creation of new labour opportunities;
- (c) stimulation of development of export oriented industries, to increase export volume and foreign exchange receipts;
- (d) acquirement of modern industrial techniques from abroad through which the level-up of the domestic industrial standard may be achieved;
- (e) encouragement of new industrial investments from domestic, as well as foreign capital markets;

Table 2-1: Establishment of Zone Facilities

Countries/Territories	1960-64	1965-69	1970-74	1975-79	1980-83	Total	Names of Zones
<u>ASIA</u>							
Bangladesh					1	1	Chittagong
China					4	4	Shenzen, Zhuhai, Shantou, Xiamen
Province of Taiwan		1	2			3	Kaosiung 1966, Nantze 1970 Taichung 1971
Hong Kong						1	Various sites
India		1	1			2	Kandla 1966, Santa Cruz 1971
Indonesia				2	1	3	Jakarta, Sutabaya, Bataan Island
Malaysia			8	2		10	Malacca: Batu Berendam, Tanjong Kling. Penang: Pulau Terak, Prai, Prai Wharves. Johore: Senai; Selangor: Sungai Way, Subang, Ampang, Ulu Klang, Telok Panglima Garang
Pakistan					1	1	Karachi
Philippines		1			4	5	Bataan 1966, Mactan, Banguco, Batangas, Isabel (Leyte)
Republic of Korea				1		2	Masan 1971, Iri 1975.
Singapore						1	Various sites
Sri Lanka				1		1	Katunyaki 1978
Thailand					1	1	Lat Krabang, 1982
Total	1	4	12	6	12	35	

Countries/Territories 1960-64 1965-69 1970-74 1975-79 1980-83 Total Names of Zones

MIDDLE EAST AND MEDITERRANEAN

Cyprus			1	1	Larnaca 1982
Egypt		4		4	Alexandria, El Nasr Cairo, Port Said, Suez, plus private zones
Jordan			1	1	Aqaba
Syria		3	3	6	Aleppo, Lattaka, Tartous
Total		3	8	12	

AFRICA AND INDIAN OCEAN

Liberia			1	1	Monrovia 1976
Mauritius	Available throughout island			1	Various sites since 1971
Senegal			1	1	Dakar 1976
Tunisia		2		2	Megrine, Ben Arous
Total		1	2	5	

CARIBBEAN

Barbados	Near zone facilities			1	Various sites
Dominican Republic		1	2	3	In Romana 1969, San Pedro de Macones
Haiti			1	1	Port au Prince 1974
Jamaica			1	1	Port of Kingston 1978
Total		1	4	6	

Countries/Territories	1960-64	1965-69	1970-74	1975-79	1980-83	Total	Names of Zones
<u>CENTRAL AMERICA</u>							
Costa Rica				2	2		Puerto Limon, Calderas
El Salvador			1			1	San Bartalo 1974
Guatemala			1			1	San Tomas de Castillo 1972
Honduras				1		1	Puerto Cortes 1978
Mexico		Various sites				1	Various sites
Nicaragua				1		1	La Mercedes 1976
Panama		1				1	Colon 1969
Total		2	2	2	2	8	
<u>SOUTH AMERICA</u>							
Brazil		1				1	Manaus 1968
Chile				1		1	Iquique 1978
Colombia			3		1	4	Barranquilla 1971, Buenaventura 1973 Palmasca 1974, Cartagena 1982
Total		1	3	1	1	6	
<u>OCEANIA</u>							
Western Samoa					1	1	Samoa 1977
GRAND TOTAL	1	9	26	21	16	73	

Note: The totals here differ from Currie.

Source: Currie (1983).

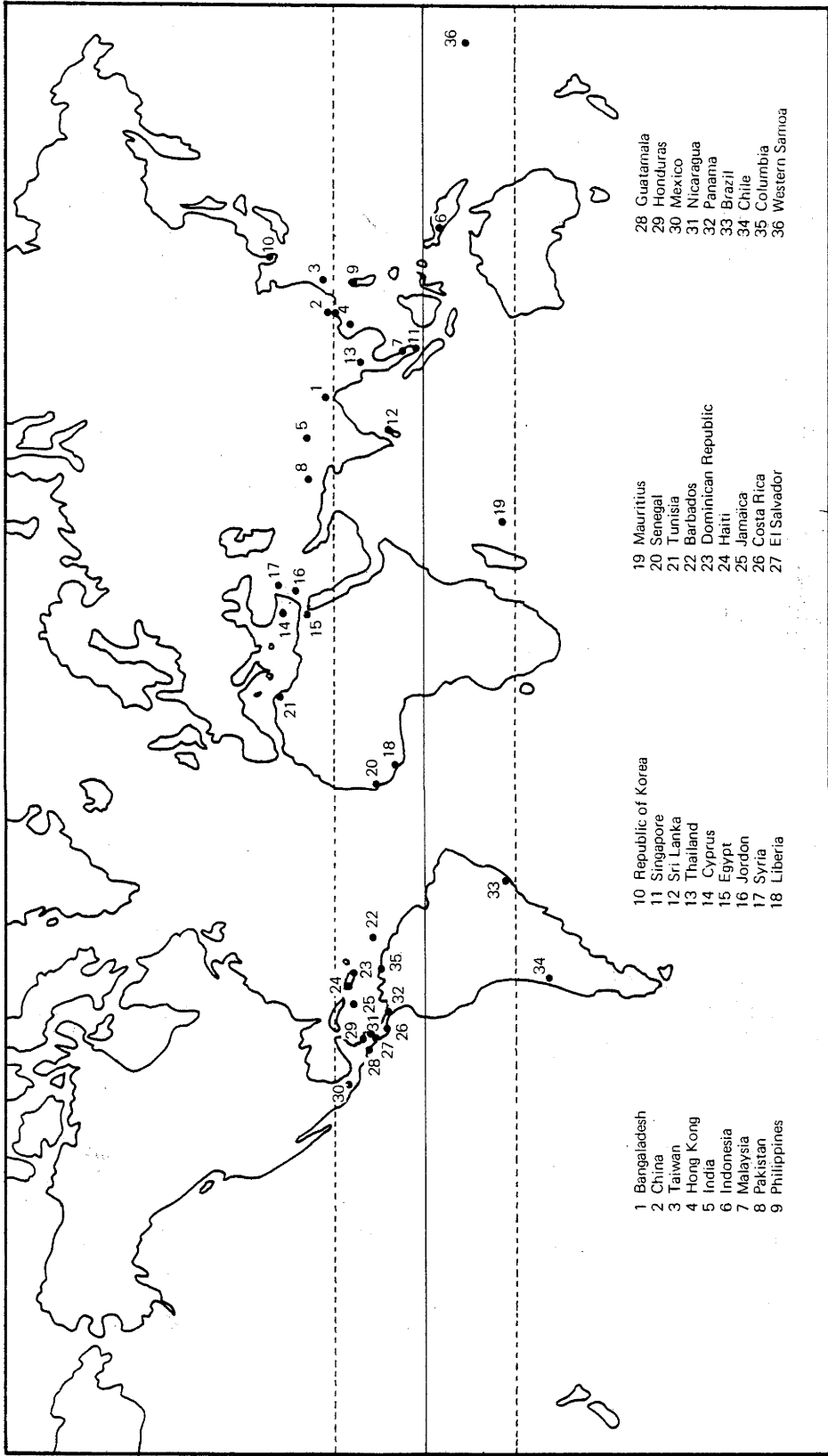


Figure 2.1: The distribution of export processing zones outside the People's Republic of China. (Source: Chu and Wong (eds.) (1982:6).)

- (f) means of a concentrated and rational development of infrastructure with the industrial free zone acting as an industrial pole (UNIDO, 1971 as quoted in Fröbel *et al.* (1977:366)).

The ability of the zones to fulfil these objectives, however, is highly controversial. This is not merely due to the varying performance of individual zones, but also to the different criteria and theoretical principles used to assess them. The mounting importance of the zones to Third World development has led to the emergence of a large number of studies examining the phenomenon. Divergent views have emerged. It is, therefore, necessary to examine the literature and distil the different lines of argument.

THE EXPORT PROCESSING ZONE DEBATE

An Overview

In terms of content, the literature can be divided into two broad categories: general studies which describe or examine the characteristics of a particular zone or zones; and studies which concentrate on a specific topic within a particular zone or zones. Invariably, the first category considers types of industries, number of workers employed, level of wages paid and their contribution to the local economies in Asian countries such as Malaysia, Singapore, the Philippines, Taiwan, Korea and India (see, for example, AMPO, 1977; Fröbel *et al.*, 1977; Vittal, 1977a; Chee, 1980; UNIDO, 1980; Castro, 1982). The second category of in-depth studies has focused on particular topics such as labour relations (e.g. Edgren, 1982; Odhnoff, 1982), cost-benefit analysis of a particular zone (Warr, 1983a, 1983b, 1986; Vittal, 1977a, 1977b) and transnational corporations in the export processing zones of developing countries (Samuelsson, 1982).

The methodologies used, however, cut across these broad distinctions. Indeed, in terms of method, two classes can be identified: empirical studies prepared by various United Nations organizations and neo-classical economists, and analyses by neo-Marxists. In essence, the United Nations papers are comprehensive macro studies examining export processing zones at either global or regional levels. Their general aim is to offer advice to countries which are running or are contemplating the establishment of export processing zones. Basically, their thrust is to discuss the significant experience of extant zones in the light of their contributions to export, employment and industrial development. There are also papers which deal with one particular aspect of the export processing zone phenomenon in depth such as their connections with transnational corporations (Samuelsson 1982; Currie, 1983), and the zones' implications for trade and industrialization (UNCTAD, 1983).

Studies underpinned by neo-classical economic theory are less descriptive and usually confined to either a specific country or topic. These cover most of the Asian

countries but very few studies have been conducted on other developing countries. The most common theme of these studies is to examine the contribution or relationship of export processing zones to particular aspects of economic development in the host countries. These aspects include the credibility of the zones as an agency for export promotion (Vittal, 1977b), industrialization (Chia, 1982; *Insight*, 1976; Wong and Chu, 1984), employment and industrial growth (Ramanayake, 1982; Datta-Chaudhri, 1982). Other themes are assessments of the overall socio-economic advantages and disadvantages of export processing zones (Castro, 1982) and labour relations (Edgren, 1982).

Marxist economic analyses of export processing zones are inherent in the study of *Free Trade Zones and Industrialization of Asia* which was published by AMPO - the Japan-Asia Quarterly Review distributed by the Pacific-Asia Resources Centre, a left-wing organization. This particular issue comprised three parts: a general analysis which relates the zone phenomenon to the 'mystique' of export-oriented industrialization; the situation of zones or para-zones (e.g. the Asahan project in Indonesia) in a number of Asian countries, namely, South Korea, Taiwan, the Philippines, Singapore, Indonesia and Malaysia; and the strategies for Asian regionalism together with inter-zonal operation of Japan's electronics firms. Another contribution on the zones has been written from a Marxist perspective by Fröbel, Heinrichs and Kreye (1977), *The New International Division of Labour* based on data embracing 103 countries in Asia, Africa and Latin America. In this study, the export processing zones and world market-oriented factories are selected by the authors as one of the three case studies to provide empirical evidence of the new international division of labour. These case studies attempt to answer the question of whether the aims of development policy are being attained via global market-oriented industrialization.

In essence, these two classes reflect a continuum of differing opinions - from right to left of the political spectrum. The majority of the United Nations papers and the neo-classical economic studies, though critical of the zones' ability to induce industrial development, are in basic agreement that the zones are, or possess the potential to be, take-off points for the industrialization of developing countries. In contrast, the neo-Marxist studies conclude that the aims of development policy are not realized by the export processing zone strategy. Contrary to accepted beliefs, the zones actually foster dependent and uneven development of the developing countries, and worsen the situation of structured unemployment in the industrialized countries. These two schools of thought constitute the core of the export processing zone debate and warrant detailed attention.

Export Processing Zone as a Viable Development Strategy

Although all adherents of this line of argument acknowledge that the export processing zones promote local activities, they differ on the extent and nature of the zones' contributions to the host economy. The most positive stance has been expressed by Vittal (1977a, 1977b), Currie (1979) and Chee (1980). Despite the recognition of the problems confronting the zones, such as administrative bottlenecks, housing problems and incentive issues, both Vittal and Chee have argued that the zones can increase exports, promote transfers of technology, expand employment, attract foreign investment and make fuller use of the land. Presuming that the zones constitute an effective development strategy, Currie's report provides information and advice to improve their operational efficiency. The works of Warr (1983a, 1983b), based on cost-benefit analyses, also concluded that the zone operations in Indonesia and Korea had been beneficial in economic terms.

Less favourable opinion is expressed by Spinanger (1983). Having examined the performance of the zones in Singapore, Taiwan, Malaysia and the Philippines, he suggested that export processing zones represented an efficient industrialization policy only where 'the entrepreneurial spirit does not have to be kindled and social attitudes don't stand in the way of modern production process[es]' (Spinanger, 1983:31). In addition, Samuelsson's analysis (1982) of the investment behaviour of transnational corporations in the export processing zones concluded that the zones could be regarded as only one kind of important investment effort to enhance industrialization. He argued that 'investment in the export processing zones became of interest principally to transnational corporations in industries where the production process could be fragmented so that full use could be made of the comparative advantage of developing countries, based on the access to unskilled labour' (Samuelsson, 1982:12). Indeed, transnational corporations have never concentrated in industries dependent on the use of low skilled labour alone. As export processing zones rely heavily on transnational corporation investment, an industrial development strategy based solely on this investment would be imprudent.

A similar opinion was expressed in a recent paper by Warr (1986). Having examined the economics of offshore manufacturing in export processing zones, Warr remarked that their contribution to employment and foreign exchange was positive though limited. In contrast, the transfer of technology, expected to materialize through the domestic linkages between the firms within and outside the zones through commercial contacts, has not occurred. Hence, Warr maintained that export processing zones were definitely not 'engines of development', although they provided an efficient and productive means of absorbing surplus labour for countries in the early stages of development. Similarly, Wong and Chu (1984:5), in their study on

the effectiveness of the zones as generators of economic development in Asian countries, stated that '... considering the magnitude of problems involved in the industrialization and economic transformation of these nations, the role played by the export processing zones can best be described as moderate'. Also, their achievements of the more specific objectives, such as employment generation, foreign exchange earnings and export growth, have been quite limited. In discussing the significance of export processing zones to economic development, Sanchez (1983) concluded that they could be looked upon as a useful adjunct to other industrial and export development policies. The zones could assist in creating jobs, expanding industrial capacity, attracting foreign investors and increasing foreign exchange earnings. Nevertheless, technological transfer and the formation of domestic linkages, apart from some exceptional cases, have been minimal. In the same vein, an UNCTAD paper (1983) remarks that the upgrading of labour skill, technological capabilities and the establishment of domestic linkages should be regarded as desirable externalities only. Nevertheless, the authors are still hopeful of the zones' ability to produce these desirable results and therefore propose ways of improving the export content and their catalytic function. Although recognizing the shortcomings of the zones in the developing countries, a study prepared by UNIDO (1980) furnishes similar recommendations to augment their effectiveness in promoting national development. These include upgrading the skill levels of the zones' labour force, improving the zones' integration with the host economy, and adopting more outward-looking policies nationally.

Collectively, the findings of the above studies have ranged from full support for the zone strategy (Vittal, 1977a, 1977b; Chee, 1980; Currie, 1983; Warr, 1983a, 1983b), through conditional acceptance of the zones as an efficient means of promoting development (Spinanger, 1983), to the recognition of the zones' partial contribution to development (Samuelsson, 1982; Warr, 1986; Wong and Chu, 1984; Sanchez, 1983; and UNCTAD, 1983). The differences have stemmed primarily from the differences in the nature of the studies. Favourable stances have invariably been based on the study of a single country (e.g. Chee, 1980; Warr, 1983a, 1983b; Vittal, 1977b). The more circumspect standpoints have been derived from in-depth examinations. As the latter stance dominates this school of thought, the features and the impacts of the zones described and identified by these studies should be detailed to illustrate the basic arguments. The comprehensive UNIDO paper is used as a marker for this purpose.

The UNIDO Study. According to the UNIDO (1980) paper, the zones offer an elaborate package of incentives which remove the administrative and physical obstacles to redeployment of industrial activities within a host country. In practice, these incentives usually include tax concessions, provision of utilities and infrastructural

services and factory space at subsidized rates, duty free import and export of goods, and provision of labour at subsidized rates and conditions. Most zones are reliant on foreign investment and linked with transnational corporations. The industrial structure of the zones is concentrated in relatively few industries - the two most prominent being textiles and garments and electronic products. While the garments industry uses a relatively labour-intensive, low level technology, the electronics industry - producing both intermediate components and final consumer goods - combines high technology with unskilled labour-intensive processes (e.g. assembly line jobs). Heavy industry and 'high technology' activities are expected to enjoy further development because Singapore, Korea, Sri Lanka and Pakistan have actively discouraged further investment in low technology industries, such as textiles and clothing. The predominance of the labour-intensive types of industrial activities in the zones has, however, necessitated an overwhelming recruitment of young and unskilled female workers between the ages of sixteen and twenty-five. These workers usually come from surrounding rural communities or are migrant workers from adjacent countries. Their social conditions, involving wages, social security and other social services are generally found to be better than in local firms outside the zones. Within the zones, greater attention is given to factory building standards, working conditions, waste disposal control and social infrastructure needs such as housing, clinics, schools and recreation facilities. The general impact of the zones on the host countries, however, varies widely.

The impacts of the zones on the host countries discerned by UNIDO can be divided into two categories - the short-term and the long-term effects. The short-term effects are net increments of capital investment, improved balance of payments, and some social and regional consequences - such as employment and changed social conditions. The UNIDO study has suggested that a spectrum of net increment in capital investment exists between the less and more advanced of the developing countries. For the least developed countries, the inflow of foreign capital associated with the zones is likely to be a total net increment. In fact, the zones may have retained domestic capital which would otherwise have been expatriated. In the case of the newly-industrialized countries, however, the net increment is likely to be low because they are already preferred locations for the capital of foreign investors. Based on the appraisal of four countries, the financial return of the host governments' investment in the zones - about 15 per cent - is more favourable than the rates of return available for alternative investments within the countries. Similarly, the zones exert a positive impact on the balance of external payments of the host countries. Nevertheless, the net contribution is greatly reduced by the relatively high proportion of imports of raw materials and intermediate goods. Further, if investment incentives are unnecessarily generous, the direct return to host governments will be reduced. Considerable employment

opportunities were also created. On close investigation, however, the temporary, female-biased employment may lead to social disruption and costs.¹ In contrast, the social conditions within the zones are greatly improved, oustripping standards in non-zonal areas. Hence, the short-term impacts are mostly positive, except for the social cost incurred by the temporary employees who are predominantly female. Less developed countries benefit more from the zone operation in the short term. The long-term effects, however, are found to be less favourable.

The anticipated long-term impacts include the formation of linkages with the domestic economy, transfer of technology, drainage of human resources from the surrounding region, and decentralization of industries from established centres. Owing to the total export-orientation of the zones, forward linkages with the host economy are precluded. Although backward linkages are possible, they have been restricted because of the predilection of investors to import raw materials and intermediate products.² Available evidence, however, indicates that backward linkages - though initially very limited - can increase, as instanced by experiences in South Korea and Ireland. Basically, the integration of zones with the host country has occurred through the purchase of infrastructural facilities and employment of labour. Then multiplier effects can flow from the expanded income of the labour force and the resultant purchase of consumption goods. If this demand is directed towards imported consumer goods, however, the effect on local industry will obviously be limited.

Likewise, technological transfer is very restricted. The limitation is primarily due to the dominance of assembly line production in the zones, a lack of local research and development, the concentration of research and development in transnational corporations (a key factor strengthening external control over industrial activities with the zones), and the enclave-like character of the zones. The UNIDO study has also highlighted that even if complex, modern technology is used in the zones, the host country has not automatically gained access to it. Much of the technology operating in the zones, however, has been found to be inappropriate for the specific developmental needs of the domestic economy.

1. The social disruption and costs involved are: firstly, the costs of taking care of dismissed workers who are uprooted from the traditional setting but receive no significant skill training in the few years of employment; secondly, conflicts may arise in the traditional local communities regarding the desirability and necessity of factory jobs, particularly the employment of women; thirdly, the sexual imbalance leads to difficulties in finding suitable marriage partners and a high proportion of unwedded mothers; and finally, a sense of hostility may be created among the male workers or unemployed male workers towards female workers.

2. Such a trend has resulted from tax concessions for imported materials and goods, the close affiliation of investors with foreign companies, the preoccupation of zones with intermediate products, and the relative youthfulness of domestic manufacturing companies.

While the transfer of technology through the zones has been found to be minimal, they have attracted a disproportionate number of young workers. The migration of workers from surrounding areas has adversely affected the future development potential of these regions. Although the zones may be used as a strategy for regional development, the attraction of industries from established centres, as has occurred in the Bataan Zone in the Philippines, may have adverse consequences on their success. By locating the zone in a 'backward' area, not only is the cost of site construction inflated, but the prerequisite conditions for industrialization are not met - features that diminish the attractiveness of zones to potential investors. Thus, the long-term gains have been limited. Indeed, some of the effects have been negative.

The UNIDO paper concluded, therefore, that the benefits generated from the zones have been employment creation, and the inflow of foreign exchange earnings (either through direct foreign investment or an improved balance of payments). The zone strategy also represented a cost-efficient method of demonstrating the firm commitment by the host countries to collaborate with foreign investors. Although the sex-biased and unstable employment character of the zones may have incurred social costs, zone workers have enjoyed a better standard of living. The host countries have also been able to generate profits from their investment in the zones. Conversely, the potential cost borne by the host countries, as contended by UNIDO, has been their seduction from alternative, but cheaper, policies of increasing foreign investment in manufacturing, particularly in export-oriented industries. In addition, the zone strategy has distracted the government's attention from broader economic policy questions including industry and education policies, general physical and administrative infrastructure, and the nature of incentives that would attract foreign investors. Finally, UNIDO argued that the zones should not be regarded as the only means for generating development, though experience to date is too limited to provide a definite answer. Nevertheless, UNIDO thought that this ultimate goal was attainable in the long-term, and thus offered several recommendations.

In the main, the Organization recommended the upgrading of the skills of the labour force through better education, the development of a more integrated production process, and the adoption of a more outward-looking economic policy. The rationale for raising the skill and education levels of the labour force was that the investing companies would be more likely to stay and introduce high technological activities. The provision of 'total product sub-contracting' required: the provision of explicit assistance to local suppliers, through the imposition of tariffs on key imports or a minimum local contract scheme; and strengthening the ability of local suppliers to meet the zones' demands. Further, the enclave nature of the zones should be reduced by creating

industrial estates around the periphery of the zones. The host government should review the existence of additional services, materials and goods which could be commercially supplied to companies operating in the zone. Judging from the performance of individual zones located in different developing countries, UNIDO recommended that the adoption of more outward-looking policies favouring manufactured exports was essential to the success of the zones.³ If the zones are to be a forerunner of general industrialization, the country - not just the zones - has to be equipped with comparable physical and administrative infrastructures. The ability of the zones to satisfy these objectives has been challenged by the neo-Marxist school underpinned by the theories of uneven and dependent development.

The Export Processing Zone as an Instrument of Underdevelopment

In essence, Marxist-oriented studies have regarded export processing zones as part of an export-oriented strategy formulated by international organizations within the world capitalist economy to integrate Asia into its orbit of production. Indeed, Fröbel and others (1977:14) have stated that:

for the first time in the history of [the] 500-year-old world economy, the profitable production of manufacturers for the world market has finally become possible to a significant and increasing extent, not only in the industrialized countries, but also now in the developing countries. Furthermore, production is being increasingly subdivided into fragments which can be assigned to whichever part of the world can provide the most profitable combination of capital and labour.

As such, export-oriented industrialization is primarily a strategy to implant competitive industrial components into Third World countries for the benefit of transnational corporations rather than an altruistic effort to industrialize these economies. According to the Marxist-oriented school, the policy of export processing zones - a concentrated expression of the export-oriented industrialization - has been actively promoted by dictatorial regimes and enthusiastically encouraged by the businessmen, bureaucrats and economists of capitalist countries. Scrutinizing the definitions of zonal imports and exports, and foreign exchange earnings, Fröbel and others have argued that export processing zones have constituted a strategy that further enhanced the centre-peripheral relationship rather than promoting the indigenous development of peripheral countries. Hence, Fröbel and others propose that export processing zones should be understood in

3. If a country is to maximize the use of its capital and labour, it should adopt policies which include: low or moderate tariff protection; a realistic or undervalued exchange rate; a favourable attitude to foreign investment and participation; access to financial and capital market; and a revision of incentives.

the current stage of integration of Third World countries by internationalized capital based in the big cities.

No proper attempt has been made, however, by the Marxist-oriented papers published by AMPO to uncover the structure and process of production within the zones to obtain empirical evidence to bolster their theoretical arguments. Nevertheless, the case study of free production sites embodied in the study by Fröbel and others has attempted to answer the question of whether the aims of export-oriented industrialization have been attained. This question is tackled by examining the features and impacts of the export processing zones: the structure of production (investment policy and industrial structure); structure of employment; overall working conditions; the outcome of employment conditions; technological transfers; balance of payments; relative social earnings; and the repatriation of profits to foreign corporations and institutions. Thus, in order to understand the features and impact of the zones ascertained by this school, we have to detail the findings of Fröbel and others (1977).

Fröbel and others. Fröbel and others' analysis of the basic features of the export processing zones was similar to that undertaken by UNIDO. The exceptions are greater stress on the favourable terms of investment incentives (e.g. an unlimited period of tax exemption and subsidized inputs and services); the absence of a significant trend towards the technologically-advanced production process (even in the newly-industrialized countries); and the 'super-exploitation' of the workers. Working conditions, in particular, were highlighted by Fröbel and others to point out that wages were often insufficient to cover the basic costs of living. Workers also suffered from long working hours, shift work, few holidays, social insecurity, insufficient pensions, the absence of unemployment benefit, and inadequate provisions for safety at work. Indeed, working conditions were much worse than those of the industrialized countries. The 'super-exploitation' of the workers, however, was maintained by various instruments, particularly political suppressions of trade unionism.

Contrary to UNIDO's opinion, Fröbel and others contended that all zonal impacts on the socio-economic development of the host economy were negative. In the short-term impacts, Fröbel and others argued that investment in the construction of an export processing zone did not necessarily attract a compensatory overseas capital inflow. The authors also claimed that the zones had no marked positive effects on the balance of payments in peripheral capitalist countries. As wages were low, prices were subsidized, and profit taxes were often exempted, they argued that the sources of foreign currency receipts were limited. Further, the sale of domestic materials was counteracted by duty exemption and investors' transnational organizations. Fröbel and others also contended that the exports derived from the zones were not the 'real' products of the

host country because domestic materials were not used and all profits were repatriated. Instead, there were debilitating currency outflows incurred from the construction of the zones, the supply of industrial inputs at subsidized rates, and the offer of subsidies to investors for financing the capital outlay. Thus, the inflow of foreign currency was, at best, equivalent to the necessary foreign currency expenditure. According to Fröbel and others, the positive differences were unlikely to generate overall improvements in the standard of living within developing countries. Nevertheless, there was little disagreement between UNIDO and Fröbel and others on the adverse effects. The latter, however, paid little attention to the social conditions within the zones (apart from those relating to working conditions). They simply stated that:

the selection of sites is often made in complete disregard for existing economic structures or the ecological effects of industrial production at the new sites. In many cases it involves the forced displacement of the rural population from areas in agricultural use (p.376).

Hence, the short-term effects as contended by Fröbel and others, were deemed to be either negative or negligible. Similarly, the long-term effects were found to be undesirable.

There was also little dispute between UNIDO and Fröbel and associates on the limited formation of forward and backward linkages between the zones and the host economy. UNIDO, however, argued that backward linkages could expand as the zone matured, whereas Fröbel and others make no such projection. Although both schools of thought acknowledged that very limited technological transfer was taking place in the zones, UNIDO maintained that the transfer was possible, while Fröbel and others completely ruled out such a possibility. In contrast, both UNIDO and Fröbel and others admitted the adverse effects of zones on the surrounding area generated by the pull of skilled labour into the zones. Thus, Fröbel and others identified no positive long-term impacts of the zones on the host economy. Hence, they drew the conclusion that there was no evidence to indicate that export processing zones could solve the industrialization problems confronting the developing countries, even if the zonal development was accelerated. Indeed, the high expenditure incurred for the running of the zones had to be derived from the surplus generated by other sectors. In view of considerable profits enjoyed by foreign investors and low or even negative benefits received by the host economies, Fröbel and others argued that the operation of the zones intensified the trend towards uneven and dependent development and widened the disparity between the material living conditions of the inhabitants of the advanced capitalist and peripheral capitalist economies. Moreover, the workers in the latter were permanently condemned to be members of the industrial reserve army.

The arguments inherent in the two schools of thought, therefore, have been detailed and illustrated by reference to the works of UNIDO and Fröbel and others. Given their different political stances, the interpretation of the empirical data has been diverse. The acid test of the validity of the two paradigms, however, lies in the extent to which the concrete situation in individual zones conforms to the features and impacts depicted by each school.

RESUME

This Chapter has traced the origin and development of export processing zones, and has detailed the polarized views on their performance. As noted, the export processing zones were demarcated to offer favourable investment and trade conditions to foreign investors to encourage the development of export-oriented industries. Since the 1970s, there has been a burgeoning interest among developing countries in establishing these zones as an integral part of their industrialization strategy. Among the various specific objectives, the zones were commissioned to induce economic development in the host countries. The ability of these zones to achieve this objective has been assessed according to different criteria and diverse theoretical bases. A debate on the performance of the zones, therefore, has evolved. The different arguments of the neo-classical economist and Marxist-oriented analysts are summarized in Table 2.2. Although there are marked similarities in their basic positions, they differ over the extent of sophisticated production attracted to the zones and the quality of working conditions within the zones.

The Marxist-oriented school has discerned either negative or negligible positive effects of the zones on the domestic economy. By comparing the working conditions in the zones with those in the developed countries, the Marxist-oriented school has regarded workers in the zones as being 'super-exploited'. Hence, this school has concluded that the zones would not induce industrialization but would intensify the uneven and dependent development of the developing countries.

The school drawing inspiration from neo-classic economic theories, in contrast, has identified some positive effects - net increments of capital investment, profitable returns on investment, increases in foreign exchange earnings and improved social conditions. Despite some undesirable impacts - the social costs and disruption engendered by the unstable and sex-biased employment - the neo-classical economic school has maintained that the zones have been able to induce industrial development in the host countries where high skill levels in the workforce have been present, the production process in the zones is closely integrated with the domestic economy, and the host government has adopted an outward-looking policy. Ultimate success, however, will hinge on the

Features/Impacts of EPZs	EPZs as a Viable Development Strategy	EPZs as an Instrument of Underdevelopment
Features:		
1. incentive system	favourable to investors	extremely preferential
2. sources of investment	predominantly foreign	same
3. industrial structure	monostructure, labour-intensive tendency of moving to sophisticated production	same, but no such tendency
4. employment structure	young, female, unskilled	same
5. working conditions	better than outside the zone	super-exploitative, worse than industrialized countries
Impacts:		
1. increment in capital investment	positive, especially for the less developed countries	not guaranteed
2. financial return of government investment in the zones	profit rate around 15%	minimal or negative
3. balance of payment	improved	minimal or negative impact
4. employment	involves cost and disruption	same
5. social condition	better than outside the zone	disrupted
6. forward linkage	non-existent	same
7. backward linkage	very limited	same
8. technological transfer	very limited	same
9. regional consequence	adverse	same
Inducement of development to the host countries	<p>possible if:</p> <p>a) education and skill level upgraded</p> <p>b) production process integrated with domestic economy</p> <p>c) a more outward-looking economic policy adopted by the host countries</p>	<p>Impossible. The zones only enhance uneven and dependent development of developing countries in relation to industrialized countries</p>

attainment of long-term objectives. In particular, the general guidelines furnished by UNIDO need to be tested in specific host countries. Although these suggestions have been generated from the experience of the more matured zones in Singapore, Taiwan and Korea, their applicability may not be universal, particularly in socialist economies such as China. Indeed, there is now a continuing debate in China about the viability of the export processing zone strategy as a means of inducing economic development, particularly over the wisdom of setting up new zones. This controversy is discussed in the next chapter.

PART II

CHAPTER 3

THE SPECIAL ECONOMIC ZONE DEBATE

Since the emergence of the special economic zone concept in 1979, vigorous debates have been taking place within the Chinese leadership on the nature, path of development, performance and impact of the Zones. The major focus of these polemics has been the appropriateness of the para-export processing zone policy for the socialist economy of China.¹ The Zones have also become grist for the mill of China watchers. Initially, mention of the Special Economic Zones only appeared in newspaper reports and journalistic articles. Gradually, as the Chinese Government persisted with the policy of creating and developing the Zones, and phenomenal progress was shown by Shenzhen, the most advanced of the Zones, they have attracted the attention of both local² and foreign social scientists. Coinciding with the Chinese Government's more relaxed attitude to research activities, there has been an exponential growth in academic literature on the Zones, and Shenzhen in particular. A major concern of these studies has been the projection and evaluation of the Zones' ability to accelerate the pace of socialist modernization in China. Divergent opinions have been expressed and debates have arisen. It is therefore necessary to devote a short chapter to review the debates, and their contribution to the understanding of the Zones, before the analysis of this study is presented.

The burgeoning literature on the Zones raises the inevitable question: what is the content of this academic material? The subsequent questions are: what are the divergent views on the special economic zone policy; what are their major differences; and how have they derived their arguments? When these questions are answered, we can proceed to tackle the final question: in what ways can the present study further the assessment of the performance of the Shenzhen Zone?

In considering these questions, this Chapter provides an overview of the special economic zone literature which is followed by a review of the zone debate. Finally, the analytical structure of the present study is presented. The thrust of the argument is

1. The debates are detailed in: Kung (1985:199-201); and *The Nineties*, August 1985:49-58.

2. Some of the local studies, for example, Yuan (1979), Sun (1980, 1982) and Yu (1983), are prepared to support respective arguments within the leadership.

that the performance of the Shenzhen Zone needs to be evaluated and explained in the light of the general export processing zone experience: filling this gap is the prime purpose of this thesis.

AN OVERVIEW OF THE LITERATURE³

Conveniently, the academic literature of the Zones, and Shenzhen in particular, can be distilled into three strands:⁴

- preliminary studies;
- strategic and theoretical studies;
- topical studies.

Preliminary studies, in essence, provide an introduction to the Special Economic Zones. Apart from the usual catalogue of information on their inception, history, plans, progress and problems, a recurrent theme permeating all studies is a discussion of how the 'social laboratories' of the Zones are functioning (or not) (Table 3.1). Hence, some of these studies (Zheng Zhuyuan,⁵ 1981; Wong Kwan Yiu, 1982; Zhang Rongfeng, 1983) comprised the first participants of the special economic zone polemic.

Studies covered by the **strategic and theoretical strand** have emphasized prescription. They have produced a flurry of recommendations to guide the policy on Special Economic Zones. Although empirical evidence has not been neglected in these studies, their main thrust has been derived from theoretical considerations. They can be further divided into: (a) general studies covering planning policies and development problems; and (b) specific discussions involving public finance, sectoral studies, economic relations and social topics (Tables 3.2 and 3.3). Due to the prescriptive nature of these papers, they are not pertinent to the zone debate.

The most voluminous group of studies on Shenzhen have comprised empirical analyses of particular issues - **the topical studies**. They can be divided into those examining economic issues and those studying social problems. As shown in Table 3.4 the material on economic issues covers a wide spectrum of topics. They range from

3. As the cut-off date for this study is 1984, only the literature published before and in 1984 is reviewed here. Later works pertinent to the Special Economic Zones will, however, be included in the section discussing the debate.

4. A critical evaluation of each bracket of the studies is contained in Appendix II.

5. In order to avoid confusion over translated names, the author's full name is given when his article is first cited, as in the case of Chinese writings. Names are translated by pinyin, unless the author's own translation has appeared in other works.

Table 3-1: Content Analysis of Preliminary Studies

Topic	Zheng Zhuyuan (1981)	He Li (1982)	Wong Kwan Yiu (ed.) (1982)	L.T. Sigel (1983)	Zhang Rongfen (1983)
1. Economy					
a) Nature		+		+	
b) Structure				+	
c) Activities			+	+	+
d) Relations			+	+	+
2. Legislation					+
3. Administration		+		+	+
4. Planning and development problems	+	+			
5. SEZ as a development strategy					+
6. Social conditions					
a) Population			+		
b) Labour policy				+	

Table 3-2: Content Analysis of Strategic and Theoretical Studies - General Studies

Topic	Author	Date
1. Development Problems	Wong Kwan Yiu GRCSEZ Zeng Muye He Jiasheng	(1981, 1982) (1982b) (1982) (1984a)
a) Economic Structure	GRCSEZ GRCSEZ	(1982b) (1982c)
b) Legislation	Wang Zhiyuan Wang Zhiyuan GRCSEZ Chu Kim Yu	(1981) (1982) (1982d) (1983b)
2. Strategic Planning	Sit Fung Suen Yan Zexian Zheng Weiming Kwok Yin Wang Lam Kin Che	(1981) (1982) (1982) (1983) (1983a)

contributions on the nature of the economy and management of Special Economic Zones in the aspects of economic, legal and administrative structure, through planning and development policies and economic activities to external and internal relations and the Zones as a development strategy.

The social studies have canvassed all key features of the social conditions of the Special Economic Zones ranging from population through general living conditions (including social services) and labour policy to 'spiritual civilization'⁶ (Table 3.5). This group of studies includes the major contributors to the zone debate. (They are: Chossudovsky, 1982; He Jiasheng, 1984a; Sit Fung Suen, 1981; Sun Ru, 1980, 1982; Yuan Shibang, 1979.)

Each set of studies on the Special Economic Zones has made a distinctive contribution to understanding the phenomenon. Preliminary studies have provided detailed accounts of the formation of the Zones and their likely pattern of development. Strategic and theoretical studies have shed light on the controversies underlying policy

6. Spiritual civilization, 'jingshen wenmeng', refers to the non-material well-being of the masses. This ranges from nourishment for the mind through social etiquette to cultural activities.

Table 3-3: Content Analysis of Strategic and Theoretical Studies - Specific Studies

Topic	Author	Date
1. Public Finance		
a) Taxation	GRCSEZ	(1982h)
b) Land Use Fees	GRCSEZ	(1982f)
c) Currency	Tang Huai	(1981)
	Yuan Shibang	(1981)
	GRCSEZ	(1982g)
	Zhang Yuanyuan	(1983)
	Chu Kim Yu	(1983c)
	Lin Hongqian & Liu Runhua	(1984)
2. Sectoral Studies		
a) Agriculture	Zheng Tianxiang & Wei Qingquan	(1981)
	Lei Qiang	(1981)
b) Industry	Wu Yongming & Ni Zhaoqiu	(1981)
	Wong Kwan Yiu	(1983a)
c) Tourism	GRCSEZ	(1982k)
	Wang Yanyu	(1984)
3. Economic Relations		
	Lin Bin <i>et al.</i>	(1982)
	Liao Yan <i>et al.</i>	(1981)
	Sun Zongwei	(1983)
4. Social Topics		
	Zhang Kedong	(1981a)
	GRCSEZ	(1982i)
	Wang Zhengxian	(1981)
	Lam Kin Che	(1983)
	Hsu Sheng I	(1983)
	GRCSEZ	(1982l)

formation. Topical studies have provided important insights on economic issues and social problems within the Zones.

As noted, the feasibility of the Zones as a development strategy has been the subject matter of a considerable number of studies. Coupled with works published at later dates, they are the substance of the special economic zone debate. Two dominant lines of argument have emerged: the Zones as a feasible development strategy, and the Zones as an unsuccessful development policy. Before delineating the argument of those opposed to the Zones, the proponent opinions will be canvassed.

Table 3-4: Content Analysis of Topical Studies - Economic Issues

Topic	Author	Date
1. Nature of Economy	GRCSEZ	(1982a)
	He Jiasheng	(1984b)
	Yu Guangyuan	(1983)
2. Management		
a) General	Wong Kwan Yiu & Chu Kim Yu	(1983)
b) Economic Structure	Chu Kim Yu	(1983e)
	He Jiasheng	(1984c)
c) Legal Structure	Jiang Zhenliang	(1983)
d) Administrative Structure	Chu Kim Yu	(1983a)
3. Planning and Development Problems	Chu Kim Yu	(1983d)
	Lam Kin Che	(1983b)
	Wong Kwan Yiu	(1983b)
	Wong Kwan Yiu	(1983c)
	Yeh Gar On	(1983)
4. Economic Activities	Chen Qinfeng	(1984)
	Hu Youqing	(1984b)
	Lee Fong Mo Kwan	(1983a)
	Lee Fong Mo Kwan	(1983b)
	Lee Fong Mo Kwan	(1983c)
	Wang Yanyu	(1984)
	Zhang Changcai	(1984)
	Zhang Changcai & Hu Youqing	(1984)
5. External and Internal Relations		
a) Relations with Hong Kong	Chen Kwan Yiu	(1983)
	Liu Pui King	(1982)
b) Relations with China	Hu Youqing	(1984a)
6. Development Strategies	Chossudovsky, M.	(1982)
	He Jiasheng	(1984b)
	Sit Fung Suen	(1981)
	Sun Ru	(1980)
	Sun Ru	(1982)
	Yuan Shibang	(1979)
	Chen Zhaobin	(1984)

Table 3-5: Content Analysis of Topical Studies - Social Issues

Topic	Author	Date
1. Population	Ng Yen Tak	(1983a)
	Zheng Tianxiang <i>et al.</i>	(1981)
2. Living Conditions	Chiu Lai Har	(1983)
	Ng Yen Tak	(1983b)
3. Labour Policy	Chen Suhui	(1984)
	Luo Fuqun	(1981)
	Wu Chung Tong	(1982)
	Zhang Youming	(1981)
4. Spiritual Civilization	Li Foyan <i>et al.</i>	(1984)

THE ZONES AS A FEASIBLE DEVELOPMENT STRATEGY

A continuum of views has been demonstrated by the advocates of the special economic zone policy. The most supportive stance has been provided by the works of Yuan Shibang (1979), Sun Ru (1980, 1982), Wong (ed.) (1982), Chu Kim Yu and Wong Kwan Yiu (eds.) (1985), He Jiasheng (1984), Chen Zhaobin (1984), and Liu Runhua (1985). Both Yuan and Sun have attempted to justify the policy, drawing precedents from Lenin's Concession Area Program introduced under the New Economic Policy in the Soviet Union during the period 1921-1929. They have argued that as capitalist and socialist economies co-exist in the present world, economic relations between the two are bound to occur. Moreover, the less developed socialist countries should and could make use of the material wealth, advanced technology and scientific management of the capitalist economies to enhance their development. They have also emphasized that the special economic zone policy would not result in any loss of sovereignty as the Zones would be administered by Chinese laws and regulations. Rather, these Zones would ultimately provide the basis for breaking away from the control and suppression exercised by imperialist countries. Hence, the long-term gains of the Zones would cover any short-term loss or costs incurred (basically realized in the share of surplus value with the capitalist investors). In particular, Yuan has traced the causes of the widespread emergence of Special Economic Zones, contending that their appearance was not coincidental but was a corollary of both the search for profitable production by the

capitalist countries and transnational companies and the willingness of the Third World countries to pay certain economic prices for the absorption of foreign investment and technology. By drawing on the example of Bataan Zone in the Philippines, Yuan Shibang (1979:9) concluded that 'after years of practice, many countries have proved that free trade zones and export processing zones are an effective economic and trading strategy to enhance economic development'. The determinants of success, as summarized, were meticulous infrastructural and economic planning based on careful research, and a deliberate effort to attract foreign investment and technology. This theoretical argument has been substantiated by more recent empirical research.

In the wide-ranging descriptive study of the Shenzhen Zone and its encompassing Municipality (covering economic activities, economic relations and social conditions), Wong and others (1982:106) have optimistically remarked that 'the Shenzhen Special Economic Zone seems quite adequate in fulfilling the primary objectives of introducing modern technologies and allowing the Chinese leaders to observe and to understand how the economic systems under capitalistic management works'. In the concluding chapter of the sequel to the above study, Wong and Chu (1985:217), having examined the western and Chinese concepts of modernization, remarked that:

the programme of Special Economic Zones is only five years old. Within such a short period of time, these Zones have been modernizing very quickly. Judging by the fact that many of their innovative measures⁷ are being adopted by other places outside of the Special Economic Zones, it is fair to say that they have contributed to the process of the modernization of China.

Such a favourable stance has been echoed by Sun (1982) and He (1984a).

The more recent empirical analysis of the Zones by Sun (1982) and He (1984a) have argued - supported by statistical evidence - that the objectives of absorbing foreign capital, foreign exchange, foreign technology, management skills and technicians have been realized in Shenzhen. In particular, Sun has pointed out that the Shenzhen Zone has not only stimulated and improved enterprise management but has also initiated bureaucratic reforms. Also, He (1984a) has delineated how the zonal policy has developed industry and agriculture, increased revenues, expanded the resources of the local regions, and provided jobs in construction and retailing. As both Sun and He have not assessed the costs incurred by the Zone, their case as yet, is unwarranted. In

7. The measures being taken up by other areas include: the tender system in construction work; introduction of contract labourers and the home-purchase scheme; and others which were regarded as good examples, although it was difficult to assess whether they had influenced the decision of the Central Government (for instance, the separation of commercial functions from the state and government departments, the enactment of laws and increasing emphasis on the role of legal systems, and the democratic election of factory managers).

contrast, both Chen Zhaobin's (1984) and Liu Runhua's study (1985) have acknowledged and discussed the shortfalls of the Zone.

In assessing the achievements of the Shenzhen Zone, Chen pointed out that, given a high degree of autonomy, the Zone had attempted to administer the economy with economic methods and had diversified the means of attracting development capital. Further, it had broken the convention of 'eating from the big pot' or from the 'iron bowl' (i.e. indiscriminate and permanent employment), and had concentrated on infrastructural construction, thereby providing a favourable investment environment. Although the Zone had not yet achieved its ultimate goals and was experiencing 'teething problems', Chen maintained that the Zones would be able to make an ample contribution to the socialist economy of China.

In response to M.H.T. Chan's challenge to the acclaimed achievements of Shenzhen (see next section), a more pragmatic study was undertaken by Liu. The latter admits that by 1983, the Zone had not achieved the 'three predominances' (sange weizhu): production and construction capital provided by foreign sources, forms of foreign investment dominated by joint-ventures; co-operative production arrangements and sole proprietorships; and a reliance on exporting the products manufactured. If the conditions were viewed, however, in a dynamic framework, it was obvious that foreign investment had expanded more than elevenfold and investment originating from joint-ventures, co-operative production arrangements and sole proprietorships had increased more than twentyfold between 1979 and 1983. He further argued that the Zone's trade deficit would decrease as local production grew and the boundary fence segregating the zonal and non-zonal area was utilized.

Judging from this progress, Liu contended that the Zone was striving towards its ultimate goals. At the time, Shenzhen was still in its formative stage, and since the Zone was not completely separated from the domestic area, it could not have been fully open to the external economy.

A more moderate attitude towards the achievements of the Zones, and Shenzhen in particular, is exemplified by the studies of Zheng (1981), Sit (1981), Zhang (1983), Falkenheim (1985) and Kung Kai-sing (1985). Although all are supportive of the zone strategy, they are hesitant to foster an entirely positive conclusion about the achievement and potential of the Zones. Zheng's study, for instance, has left the Zone's future open-ended, after pinpointing the differences between the Zone's economic systems and that prevailing in other parts of China.

Based on the experience of other Asian export processing zones, both Sit (1981) and Zhang's (1983) studies attempted to project the possible economic effects and the

likely future developments of the Special Economic Zones. By comparing the Chinese Zones' investment environment with that of other Zones, Sit pointed out that the Chinese Zones possessed both strengths and weaknesses. Recognizing that the performance and the assessment methods of export processing zones have been controversial, he remarked that the future of the Chinese Zones remained inconclusive. More specifically, Zhang (1983) has argued that the main contribution of the Zones will be found in increasing national income through direct channels and serving as a test-ground for economic reforms. Forecasts on the future development of the Zones by Zhang are based on an examination of the investment environment of the Zones, an exploration of potential linkages and the possibilities of establishing backward linkages with the rest of China. This appraisal led Zhang to a number of conclusions: that the Zones have failed to use their assets; that among other economic sectors, tourism and light industry possess relatively better markets; and that backward linkages will be difficult to establish. Hence, he viewed the future of the Zones with apprehension. While the studies of Sit and Zhang are projections based on the Zones' investment environment, those of Falkenheim (1985) and Kung (1985) are assessments of the economic performance of the Zones.

By comparing the initial investment and growth objectives of zone planners to actual performance, Falkenheim (1985) discerned that although there have been increases in industrial output, local financial revenue, employment, wages and commercial activities, development problems have arisen. The problems have included the predominance of construction output value in total industrial output, the dominance of assembly and processing industries, the preponderance of Hong Kong capital in foreign investment, the lagging export performance, and the unclear beneficiary of the domestic linkages being forged. These problems affected technological transfer and export expansion - two main goals of the special economic zone strategy. Weighing up the achievements and problems of the Zones, Falkenheim (1985) found it difficult to draw a definite conclusion on the achievements of the Zones. Nevertheless, he maintained that 'in further opening the coast to foreign investment, the Chinese are sidestepping signs of growing problems in such crucial areas as exports, foreign exchange and technological transfer, problems not likely to be ameliorated by extending the scope of the policy'. Further, by rapidly opening the coastal area, the Chinese are unleashing new competitive pressures which might threaten the overall objectives of the Zones.

In contrast, Kung (1985) adopts a more relaxed attitude towards the achievements of the Zones. On the basis that 'insufficient time has elapsed to allow any structural break to occur', and 'until the dynamics of Shenzhen development takes on a more stable path, it remains futile to criticise it', he dismissed Chan's (1985) criticism that Shenzhen

has failed to fulfil its objective as an industrialization zone which exports its manufactures, attracts foreign capital sufficiently, and makes concomitant technological progress. At this juncture, Kung argued that the 'demonstration effect' of the 'entrepreneurial dynamic' of Shenzhen, and its capacity to generate economic development in an integrated way, have certainly been of some merit. While such 'wait-and-see' or defensive attitudes have been adopted by the protagonists of the Zones, the opposing school has regarded the Zones as a costly and inefficient development policy which failed to induce national growth.

THE SPECIAL ECONOMIC ZONES AS AN UNSUCCESSFUL DEVELOPMENT POLICY

The key articles in this line of argument are the studies of Chossudovsky (1982) and Chan (1985a, 1985b, 1985c, 1985d). While the former writer was only able to give a preliminary assessment of the Zones in relation to China's trade and foreign investment, the latter based his studies on substantial empirical evidence. According to Chossudovsky's argument, the special economic zone policy has merely established extraterritorial rights for foreigners similar to those set up after the Opium War (1839-42). At best, the Zones have encouraged 'overflow' of small scale manufacturing firms from Hong Kong. Subsequently, the Zones are likely to have a backwash effect on the economic development of the interior as the enclaves have prevented the generation of forward and backward linkages. Even the much anticipated transfer of technology has not materialized. Economic crimes engendered in the Zones have also strained China's balance of payments. As Chossudovsky's claims have not been supported by empirical evidence, his negative statements remained unsubstantiated. In contrast, Chan's studies provide ample evidence.

In his two studies (1985a, 1985b) on the economic progress of Shenzhen, Chan demonstrated that the Zone had not achieved its goals by mid-1984. The following were his main criticisms: the Zone's industrial growth had relied on a large amount of investment in infrastructure; industrial growth had mainly been derived from construction output; the transaction value of retailing had been greater than industrial output; the proportion of foreign investment had been smaller than that of domestic investment in total development capital, and in the industrial sector; and the fact that only one-twelfth of the total industrial products and half of the manufacturing products had been exported. As the value of imports had been enormous and large-scale entrepôt trade had been carried out, Chan demonstrated that the main engine of Shenzhen's development was entrepôt trade, with the domestic economy as the main market. These findings led Chan to conclude that the achievement of Shenzhen was due to the manipulation of the Zone's 'free port' status by foreign and domestic investors. He

further argued that notwithstanding the injection of a large amount of internal investment, the Zone had not achieved the 'three predominances'. Hence, if the Zone was to contribute to the opening of the coastal cities, it provided lessons of failure, and not ways to success. Looking ahead, he maintained that since the Zone had failed in the past, there was no guarantee that it would succeed in the future. Finally, he proposed that in view of the country's scarce capital, cities such as Shanghai, instead of Shenzhen, should be chosen to develop industries of a high technological content.

In another two studies (1985c, 1985d), Chan analysed the sources of Shenzhen's development capital in conjunction with its economic development. In both cases, he argued that, contrary to the claims of the Shenzhen government, the Zone had not been financed primarily by foreign capital. At best, foreign investment constituted the medium for attracting domestic investment. Although half of the Municipality's industrial output originated from foreign-related firms, this does not imply Shenzhen has achieved external orientation. The reasons were: the fact that less than half of the products from foreign-related firms were exported; the predominance of imports over exports; and the dominant sponsoring of the Zone's development by domestic capital, manpower, technology and market. Hence, he concluded that the claims of success by the Shenzhen government were unconvincing. In the article included in *Shenzhen Pouzi* (1985c), he further posed the question of whether it is economically justifiable to use a huge sum of domestic capital and provide preferential terms to foreign investors if the Zones could not achieve an export-led economy. More moderately, he concluded in the article contained in the *Asian Journal of Public Administration* (1985d) that despite the failure of Shenzhen to stand as a national model of local economic development funded by foreign capital, Shenzhen's experience and the factors behind its rapid economic growth could still be useful for the reference of other local economies in China. Nevertheless, he pointed out that when Shenzhen's special status in China's planned economy has been diluted by nation-wide economic reforms, Shenzhen might not remain successful.

RESUME

Thus, the major difference between the two lines of argument lies in the interpretation of data which have been mainly sketchy and piecemeal by 1984. While the extreme protagonists employed crude data to support their all-positive stance, both the moderate proponents and opponents have illustrated that the goals of the Zones have not been achieved. Nevertheless, the proponents argued that some initial achievements have been derived. The ultimate performance of the Zones has yet to be proved by their future development. This time factor is, however, lacking in the

argument put forward by the opposition. As the immediate performance of the Zones did not justify the large inflow of capital and human resources, they were regarded as economically inefficient, and hence a failure. On the whole, the interpretation of data by both schools has concentrated on the objectives, features and progress of the Zones *per se*, excepting Kung's explanation of Shenzhen's flourishing commercial activities from a national context. Although Yuan, Sit and Zhang have based their projection of the Zones' future on the experience of the export processing zones, only comparisons of objectives and investment environments have been made.

A Way Ahead

There are many ways that the Special Economic Zones can be studied and the zone debate furthered. The most urgent task, however, is to evaluate the structure and performance of the Zones and particularly Shenzhen in the context of the export processing zone development. Already the Shenzhen Zone has been operating for five years; its structure and development trend have been gradually formulated. An appraisal of its development in the light of the experiences and performance of other Zones, especially the findings summarized by the two opposing schools, will foster a more insightful and balanced view. Moreover, as the social conditions of the export processing zones and the well-being of the workers have been a central issue of some major studies (e.g. Fröbel *et al.*, 1977; AMPO, 1977; UNIDO, 1980), the oft-neglected social well-being of Shenzhen's population will have to be considered. After all, the ultimate goal of China's socialist modernization is to raise the living standard of the common masses. The timely publication of the *Shenzhen Special Economic Zone Yearbook* in 1985 diminishes the major data problems and enables a more comprehensive empirical study of the Zone to be made.

Hence, focusing on economic structure and performance, the analysis chapters of this study will firstly assess the economic development of Shenzhen with reference to its planning and directives (Chapter 4). Subsequently, by examining the Zone's population structure, the economic well-being of its residents and the provision of social goods, the general well-being of Shenzhen's population will be ascertained (Chapter 5). Finally, the economic and social performance of Shenzhen will be evaluated in the context of the export processing zone debate detailed in Chapter 2 and, in turn, its contribution to China's modernization will be assessed in the light of its entrusted roles in the country's economic and urban development as discerned in Chapter 1 (Chapter 6).

CHAPTER 4

SHENZHEN: THE ECONOMIC DIMENSION

Government intervention has been paramount in fashioning the economic geography of Shenzhen. Although more attention has been given to market forces, the fundamental characteristic of a socialist economy - the dominance of the state - has remained unaltered. The effect of these initiatives on the location of economic activities could be catalogued in the familiar terms of agriculture, extractive industries, manufacturing and construction, transport and communications, finance, insurance and real estate, trade and services. Rather than follow that time-worn path, attention is focused on the degree to which government economic directives have been realized.

As the intention of the Chinese Government has been to create Shenzhen as an industrialized city and an externally-oriented economy, it is pertinent to consider the extent to which these overall goals have been hitherto achieved. In undertaking this interim assessment, a basic question is raised: what have been the Chinese Government's economic directives for the Zone? In evaluating the extent to which these aims have been achieved, a series of other questions are posed: what is the industrial structure of Shenzhen; where are the industries located; how have the industrial and non-industrial sectors fulfilled the planning targets; what is the importance of industry in the overall economy of Shenzhen; and finally, how significant has the contribution of foreign investment been to the development of Shenzhen?

An effective way of tackling this bundle of questions is to examine the Zone's directives, structure and performance. Since government initiatives are of paramount importance in China, directives are considered ahead of structure and performance. We are then in a position to assess the economic development of Shenzhen. These investigations will demonstrate that the Zone has been successful in developing industry as the main sector, but the technological level of production has been low. Likewise, its external-orientation has been rudimentary.

GOVERNMENT DIRECTIVES

The Chinese Government's economic directives (i.e. conduct) can be distilled from an examination of its regulations and ordinances. Of particular importance are the regulations governing preferential treatment for firms willing to establish their activities

in Shenzhen. Also significant are the two development plans drafted by the Shenzhen authority. With this information it is possible to highlight the specific economic aims behind the establishment of Shenzhen, outline the development plans and specify the nature of the incentives offered to investors.

Specific Economic Aims

The Chinese Government's aims in creating Shenzhen were broadly defined in the initial regulations published in 1980. These *Regulations on Special Economic Zones* (see Appendix I) stipulated that: (a) foreign investment was to be encouraged and (b) the Zone was to 'house' activities ranging from agriculture through tourism, housing and construction, and research, to manufacturing. Although the preference was for activities with a high technological content, other trades of common interest to investors and the Chinese side were permitted (Article 4).

In 1981, the State Council announced ten measures to facilitate the Zone's operation. These measures emphasized the importance of practical planning principles, and confirmed that foreigners would receive preferential treatment in taxation, customs procedures and enterprise management. They further outlined the Zone's broad financial policy, and urged its authorities to seek capital actively both from national and foreign sources. To attract investment, they suggested that special legislation should be passed to give the Special Economic Zones autonomous power, particularly over trade matters. In turn, the Special Economic Zones' management should function efficiently and effectively. These new measures, however, did not sharpen the direction of development. They merely re-emphasized the comprehensive economic nature of the Zone and reiterated that the investment environment for foreigners would be improved (*Ta Kung Po*, 19 August 1981).

The announcement of more concrete aims had to await publication of the two twenty-year draft plans in September 1982 - the *Shenzhen Outline Social and Economic Plan* and the *Shenzhen Special Economic Zone Master Outline Plan* (*The Asian Wall Street Journal*, 20 September 1982; *China Daily*, 22 September 1982; Yeh, 1983; Lam, 1983). Coming two years after the Zone had commenced, these Plans stated that Shenzhen would develop into a major industrialized city by the year 2000. In particular, the Plans highlighted that Shenzhen's economy would be focused on the development of high technology and capital-intensive activities. Products from these industries would have to be competitive in world markets. The main source of capital to underpin these activities was to be sought overseas. Between 1980 and 2000 it was expected that foreign capital would account for 58 per cent of the investment in the Zone. A total of US\$7.2 billion (HK\$56.7 billion) in foreign investment was projected (*The Asian Wall*

Street Journal, 20 September 1982). The remaining 42 per cent of investment would be generated from the Zone's own resources, state-owned enterprises, and Chinese bank loans. Thus, the original intention was that Shenzhen should have an externally-oriented economy both in its source of capital and the destination of its products.

In 1984, the announcement of the *Seventh Five Year Plan (1986-1990)* confirmed the past direction of development. Nevertheless, it added trade and commerce to the list of approved economic activities. The Plan also specified that the Zone should develop into an entrepôt capable of handling both national and international commerce (*Shenzhen Special Zone Daily*, 6 August 1984). Indeed, this new emphasis represented the government's recognition of the unanticipated rapid development in the commercial sector.

Between 1980 and 1984, therefore, the Zone's economic aims have been defined in broad terms, specified in more concrete terms, and then diversified. In turn, these aims have been translated into physical plans to guide the location of economic activities - the physical hardware for production, exchange, circulation and consumption.

Spatial Structure

According to the land use plans, the Shenzhen Special Economic Zone is to be concentrated in a lowland belt stretching from the mouth of the Pearl River to Dapeng Bay. The Zone is subdivided into three planning regions: Western, Central and Eastern. As shown in the land use plan (Fig. 4.1), the Central Region, due to its proximity to Hong Kong, will be the major focus for residential development. Conversely, the Eastern Region will centre on tourism, fisheries and agriculture, whereas the Western Region aims for comprehensive development.

The three planning regions are subdivided into eighteen districts (Fig. 4.2). The Western Region contains six districts: Shekou, Shahe, Houhai, Xili Reservoir, Chiwan, and Nantou (including Baoan's County Town). The Central Region is the largest, consisting of three sections which are further divided into nine districts. Four of them are situated in the Western Section: Futian, Chegongmiao, Xiangmihu and the Agronomic Institute. While the Central Section only contains Shangbu, the Eastern Section consists of Luohu, Shenzhen Old Town, the Reservoir District and Liantang. In the Eastern Region, there are only three isolated districts: Shatoujiao, Yantian, and Dameisha-Xiaomeisha.

As reflected in Table 4.1, each planning district has been designed to be self-contained with the emphasis on either industry, commerce or housing. Shangbu, Shahe and Liantang have been planned as areas of light industry. Shekou and Chiwan

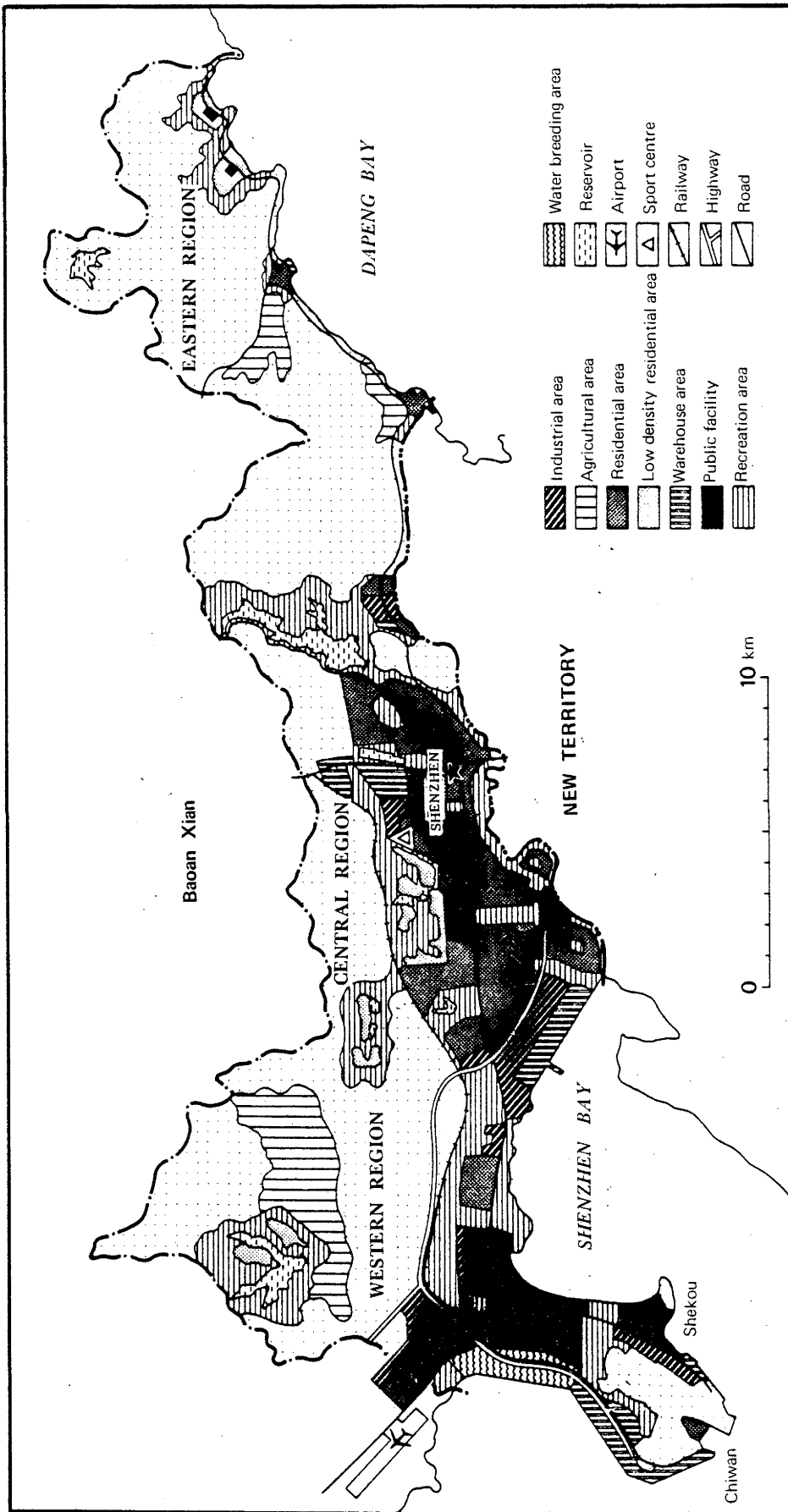


Figure 4.1: Planned land use of Shenzhen Special Economic Zone. (Source: Based on Lam 1983a:32.)

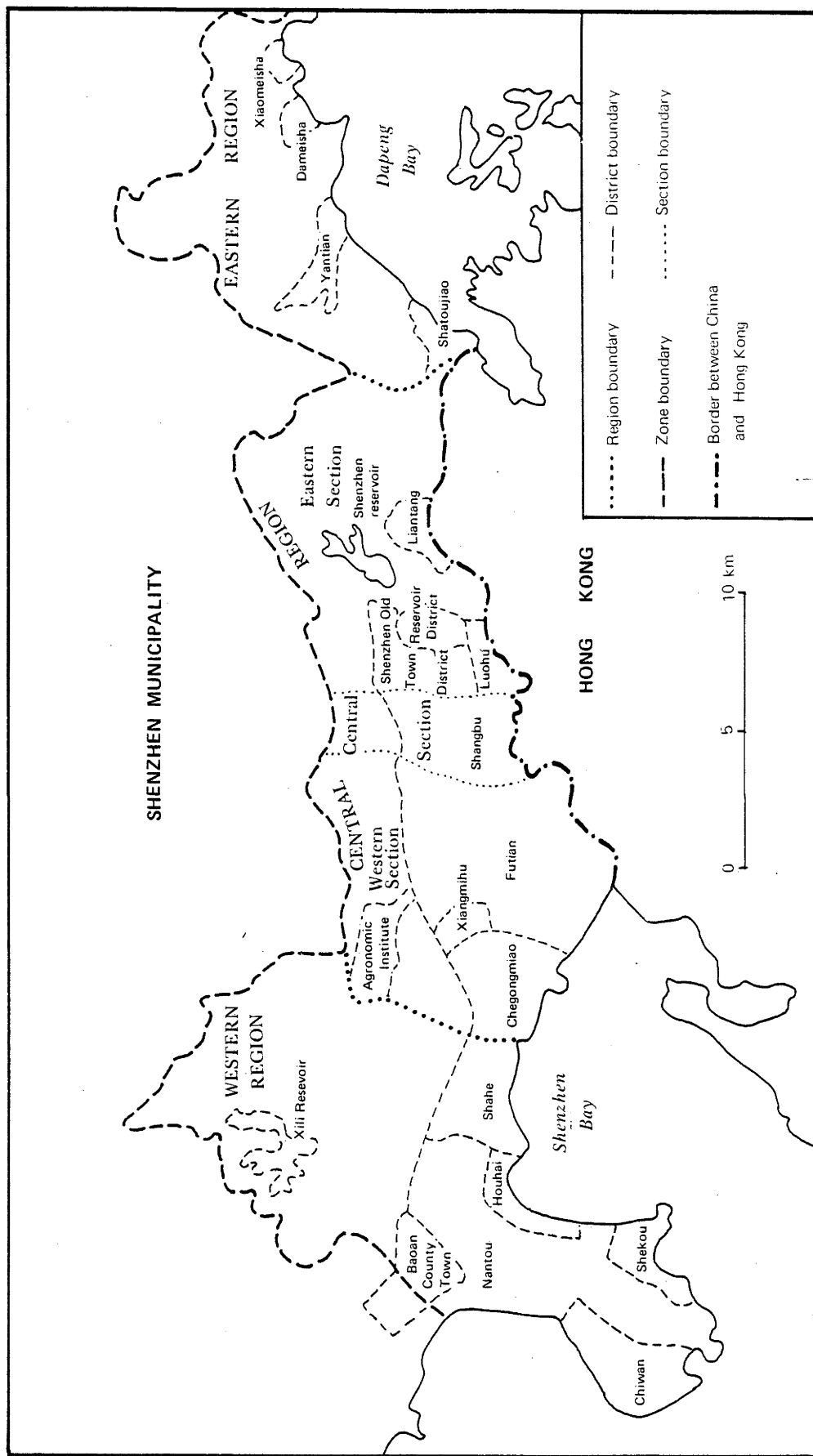


Figure 4.2: Proposed planning districts of Shenzhen Special Economic Zone 1982. (Source: Based on Yeh, 1983:32-41.)

have been designated as heavy industrial areas. A fruit-growing area and fish-breeding base have been planned for Yantian in the Eastern Region. Four districts - Dameisha-Xiaomeisha, the Reservoir District, Xiangmihu and Xili Reservoir have been assigned for tourist development. Commercial and residential districts will be concentrated in Shatoujiao, Luohu and Shenzhen Old Town. The Reservoir District and Shangbu have also been set aside as areas for housing foreigners. Mixed development has been scheduled for Futian New Town and Chegongmiao in the Central Region; similar provision has been made for Houhai and Nantou in the Western Region.

Economic Planning

Basically, economic planning in Shenzhen has concentrated on target-setting. Economic targets have been set for 1985, 1990 and 2000. Most attention has been directed to the targets for industry and agriculture. As shown in Table 4.2, the combined output of these leading sectors is expected to increase 157 times from 77 million yuan to 12.1 billion yuan between 1980 and 2000 - an annual growth rate of 29 per cent. Agricultural output, however, is only anticipated to quadruple by the year 2000 - an annual growth rate of 7 per cent. In contrast, industrial production is expected to increase 235 times - an average annual growth rate of 31 per cent. As a result of these differential growth rates, industry's proportion in the total output of the two leading sectors will increase from 66 per cent in 1980 to 99 per cent in 2000.

Additional information has been provided on industrial output because it is intended to be the prime engine of development. As shown in Table 4.3, Shenzhen is expected to achieve an annual industrial growth rate of 88 per cent between 1981 and 1985. The growth rate will taper from this initial surge. It is anticipated that the figure will be reduced to 25 per cent between 1986 and 1990, and 13 per cent between 1990 and 2000. Reflecting these rates, some 200 industrial enterprises will be in operation by 1985 and will employ about 50,000 workers. By the year 2000, it is estimated that the number of enterprises will have increased to 1,500 units and the workforce will have expanded to over 200,000 (Chu, 1983d; *The Asian Wall Street Journal*, 20 September 1982).

The planning of non-industrial activities has not been detailed. Nevertheless, the emphasis within agriculture will be on the export of cash crops. By the year 2000, the vegetable growing area will have expanded from 3,470 ha in 1980 to 10,000 ha; a further 2000 ha will have been developed for horticulture. A boom in tourism has also been forecast. Between 1985 and 2000, the number of international hotels will have increased from ten to fifty units - a figure based on a 10 per cent annual increment in tourists from the base year figure of 100,000 in 1981.

Table 4-1: Planning for Land Use and Population in Shenzhen Special Economic Zone

Regions	Sections	Planning Districts	Major Function	Total Area of Land Ha	Usable Land Ha	Population 1980	Population 2000
Eastern		Shatoujiao Yantian	Commerce, residential use	6,280	172	3,880	30,000
			Fishery, agriculture, industry		578		
			Tourism		260		
Central	Eastern	Luohu	Commerce, residential use, industry		300	46,050	195,000
			Commerce, residential use, industry		200		
			Tourism, residential use, industry		400		
Central		Reservoir District Shangbu	Tourism, residential use, industry, residential use, warehouse	14,023	440	60,000	
			Industry, residential use, warehouse		1,000		
			Comprehensive development		3,000		
Western		Chegongmiao Xiangmihu Agronomic Institute	Comprehensive development		600	30,000	
			Tourism		210		
			Scientific education and research		400		
Western		Shekou Industrial Zone Shahe Houhai	Mainly industry		1,200	3,550	40,000
			Mainly industry		230		
			Comprehensive development, education		600		
Western		Xili Reservoir Chiwan Port District Nanton, Baoan County Town	Tourism		300	13,790	3,000
			Industry, port facilities		500		
			Industry, comprehensive development		610		
Total				32,752	11,000	84,360	812,000*

Note: * The original planned population in the year 2000 was 1 million.

Sources: Interview with Shenzhen Planning Bureau, 1982; Ng (1983a:39-45).

Table 4-2: Targets for Industrial and Agricultural Output, 1980-2000
(Money amounts in Rmb 1,000)

Year	Industry		Agriculture		Total	
	Rmb	Per cent	Rmb	Per cent	Rmb	Per cent
1980	51,000	66	26,000	34.0	77,000	100.0
1985	120,000	94	80,000	6.0	128,000	100.0
1990	3,600,000	98	90,000	2.5	3,690,000	100.0
2000	12,000,000	99	100,000	1.0	12,100,000	100.0

Source: Based on Lau (1982a).

Table 4-3: Planned Annual Industrial Growth Rates in Shenzhen Special Economic Zone

Year	Annual Growth Rate Per cent
1981-1985	88.0
1986-1990	25.0
1990-2000	13.0
1981-2000	31.0

Source: *Asian Wall Street Journal*, 20 September 1982.

Accompanying economic forecasts have suggested that the Shenzhen Economic Zone will derive a net annual revenue of between HK\$5,000 and HK\$7,000 per worker engaged in a foreign firm (i.e. based on land use fees, labour charges and profit tax). Tourism is expected to net HK\$50 per individual with an annual increment of 10 per cent. A yield of HK\$420 per sq m will be derived from restaurants and hotels whereas property development will produce HK\$1,250 per sq m (Zheng, 1982). Many key elements of economic planning, such as resource allocation, capital accumulation and credit systems, have not been considered. Indeed, economic planning in Shenzhen, as observed by Lau (1982a), has been little more than target setting.

Preferential Treatment

As the elaboration of economic plans and specification of the desired location of economic activities would not have been sufficient to attract foreign investment, attention has to be focused on the incentives offered to overseas firms. By January 1985, eleven regulations had been promulgated for Shenzhen.¹ (Further regulations detailing legal arrangements are in the process of being drafted.) As such, these regulations have constituted a major component of the Chinese Government's economic directives.

Paralleling incentives offered by other export processing zones, Shenzhen has waived taxes on imports of raw materials and exports of finished products (Table 4.4). Firms attracted to the Zone do not have to pay any local taxes (the period of exemption is apparently unlimited). Profit taxes are either exempted or reduced in the initial years of operation. Also foreign investors have been able to take advantage of discounts on raw materials and goods purchased within China. The regulations stipulating that semi-finished and finished products have to be exported have been relaxed to permit a proportion of these products to be sold on the domestic market (exact extent to be negotiated). Unlike most other zones, no maximum investment limits have been established. Both sole proprietorships and joint ventures with Chinese partners have been welcomed. Nevertheless, capital transfers are prohibited during the term of the joint venture. Upon termination of contract or dissolution of the venture, the transfer rights are further limited by the overriding power of the Chinese partners, and repatriation of capital is only possible if the joint enterprise has sufficient available foreign exchange (Chai, 1986).

Land use fees have been varied to encourage foreign-based industrial development.

1. The regulations promulgated are: *Regulations on Special Economic Zones in Guangdong Province* (26 August 1980); *Interim Provisions of the Special Economic Zones in Guangdong Province for the Control of Personnel Entering and Leaving China* (1 November 1981); *Interim Provisions for the Registration and Administration of Enterprises in the Special Economic Zones in Guangdong Province* (24 December 1981); *Interim Provisions for Labour and Wage Management in Enterprises in Special Economic Zones in Guangdong Province* (24 December 1981); *Interim Provisions of the Shenzhen Special Economic Zone for Land Management* (24 December 1981); *Provisions of the Shenzhen Special Economic Zones for the Management of Commercial Housing* (15 November 1983)*; *Provisions of the Shenzhen Special Economic Zones for Formulating Economic Agreement with Foreign Investors* (7 February 1984)*; *Interim Provisions of the Shenzhen Special Economic Zone for Technology Importation* (8 February 1984)*; *Rules for the Implementation of the Interim Provisions for the Registration and Administration of Enterprises in the Special Economic Zones in Guangdong Province* (9 February 1984)*; *Provisions of the Shenzhen Special Economic Zone and Fourteen Coastal cities for the Reduction and Exemption of Enterprise Income Tax and Industrial and Commercial Unification Tax* (20 November 1984)*; *Interim Provisions of the Shenzhen Special Economic Zone for the Administration of State Financial Enterprises of Non-Bank Nature* (12 December 1984)*.

* Author's own translation from the Chinese version.

Table 4-4: Major Tax Exemption in Shenzhen, 1983

Items	Taxation
Machinery, equipment, spare parts, raw and semi-processed materials, means of transportation and other capital goods required for production	Exempted from import tax
Articles for daily use	Reduced or exempted, depending on individual situation
Enterprise profit	
a) General	15 per cent
b) Industrial, transport, agricultural and forestry, enterprises which will operate for ten years or more	Exempted for the initial two years, and reduced by half for the subsequent three years (counting from the first profitable year)
c) Service industries with an investment of US\$5 million or more	Exempted for the first year, and reduced by half for the following two years (counting from the first profitable year)
d) Enterprise established before 26 August 1981	Exempted for the initial three years, and reduced by half for the subsequent two years. Further reduction is negotiable.
e) Enterprises with an investment of US\$5 million or more, or involving high technology, or requiring a longer capital turnover period	Reduced by 20-50 per cent, or exempted for one to three years
f) Reinvestment for a period of five years or more	Exempted or reduced for the re-invested portion
Export of products	Exempted from export tax

Note: No preferential treatment is granted for individual income.

Sources: *Regulations on Special Economic Zones in Guangdong Province*; *Zhongguo Jingji Tequ Shouce*:123-6; *Shenzhen Special Zone Herald*, 24 January 1983; *Shenzhen Special Zone Daily*, 20 November 1984; *Yearbook of China's Special Economic Zones* 1983:105.

Under this scale of fees, outlined in Table 4.5, industrial land has been afforded the lowest rate. The highest rates have been for commercial land followed by tourism and commercial residential buildings. Clearly, these rates have been determined in such a way that they were lower than those prevailing in Hong Kong. Conversely, they have been at rates higher than those current in China.

Table 4-5: Land Use Fees December, 1981

Land Use*	Rate** Rmb per annum per square metre	Lease Years
Industrial	10 - 30	30
Commercial	70 - 200	20
Commercial, residential buildings	30 - 60	50
Educational, scientific, technological, medical and health	Preferential treatment	
Tourist	60 - 100	30
Crop planting, animal husbandry and aquaculture	Negotiable	

Notes: * Projects either involving exceedingly advanced technology, or which are non-profit making may be exempted from paying land use fees. ** The rates shall be subject to adjustment once every three years, starting from 1 January 1981, and the extent of adjustment shall not exceed 30%.

Source: *Business Directory of China Special Economic Zones and Southeast Asia* (2):229-34.

Further incentives were introduced in January 1983 to encourage higher forms of co-operation (i.e. joint venture) and the utilization of the less popular areas of the Zone (see Table 4.6). Accordingly, the popular areas of Luohu District and Shekou Industrial Zone were only afforded a 30 per cent reduction in land use fees. The less favoured districts of Shangbu, Shuihu and Shatoujiao received a 40 per cent reduction. All other districts, except those assigned for massive development, received a reduction of 50 per cent.

Spatial differentiation was sharpened in July 1984 when the authority classified

Table 4-6: Reductions in Land Use Fees, 1983

District	Reduction Per cent
Luohu District	30.0
Shekou Industrial Zone	30.0
Shangbu	40.0
Shuihu	40.0
Shaotoujiao	40.0
All other districts except those designated for massive development	50.0
Undeveloped land (slopes, hills, swamp area)	Full reduction for one to five years

Source: *Shenzhen Special Zone Herald*, 24 January 1983.

the districts into different grades and further reduced the land use fees respectively. Luohu, Shangbu and Shatoujiao were classified as first-grade areas, while Shekou and Shahe were designated as second grade. All other districts were classified as third grade. The rates of reduction on each land type, however, were not specified. In order to attract high technology projects and encourage donations for non-profit making undertakings from overseas Chinese and residents of Hong Kong, Macao and Taiwan, further incentives were granted to pertinent investors. They are given full reduction in land use fees for the initial five years of operation and half reduction for the subsequent years. Projects with exceedingly advanced technological content would receive a total reduction (*Shenzhen Special Zone Daily*, 1 July 1984).

Another incentive has been permission to use expatriate managers - a departure from the general practice in China. Under this regulation, firms can either recruit managers from Hong Kong and Macao or from overseas. Simplified entry and exit procedures for these expatriates has been guaranteed. Workers may be hired through the Zone's Labour Service Company or directly by the enterprises themselves. In either case, workers are hired on a contractual basis and employees can also be penalized or dismissed according to the regulations and rules of the individual enterprise. Wages may be specified according to either time-based rates or piece work (*Investment Guide*, February 1984).

As a portion of investment was to be derived from within China, commensurate incentives have also been extended to domestic investors. The most notable term of preferential treatment is the relaxation of control on the consumption of products within China. Although the quota has not been specified, it has been announced that further relaxation will be given to products which are essentially manufactured from domestic raw materials (i.e. more than 70 per cent). Products assigned for domestic consumption will not be taxed at all. Similarly, imports of advanced equipment, spare parts and raw materials for production have been declared tax-free. Nevertheless, enterprises sponsored by domestic investors will be subject to the same income tax regulations applicable to Shenzhen-based enterprises. In the case of a joint venture between domestic investors and Shenzhen-based firms, the profits that the domestic investors receive in foreign currency will be 20 per cent more than their Shenzhen counterpart. Further, they have been granted a 30 per cent reduction in land use fees, and one to three years' exemption if undeveloped land is used. For profitable enterprises that will operate for a minimum of three years, their staffs, together with their urban family members, are permitted to migrate to Shenzhen (*Shenzhen Special Zone Herald*, 16 May 1983).

These incentives have emphasized that the Chinese Government has intended to use both foreign and domestic capital as the means of developing Shenzhen into an international industrial and commercial centre. Greater stress, however, has been given to foreign investment as reflected in the concessions on enterprise management and sole proprietorships. Perhaps the most tantalizing bait, given the size of China's domestic market, has been the possibility of selling to local customers. Although no plans have been announced for the commercial sector, it should not be ignored in assessing the potential for overseas investment. The extent to which the Chinese Government has been successful in fulfilling its targets is considered by first examining the economic structure of the Zone.

ECONOMIC STRUCTURE

Contrary to the planning directives, the real estate and commercial sectors, rather than the industrial sector, have become the prime components of Shenzhen's economy during the Zone's initial years of operation. Nevertheless, the present account of Shenzhen's economic structure is focused on its industries because they have been targetted as the prime engine of Shenzhen's economic development. Hence, attention is centred on: (a) the types of industries, gauged in terms of their output value and employment; (b) their capital intensity; and (c) their changing locations.² A case study

2. Incomplete data prevents further explanation of the Zone's industrial structure (e.g. number of enterprises and employment in each industrial category).

of electronics - the dominant industry - is used to go beyond the raw, at times inadequate, statistics on the types and capital intensity of industries. Similarly, detailed analyses of the Shangbu, Shahe and Shekou Industrial Districts are used to flesh out the meagre information on Shenzhen's industrial agglomeration. Hopefully, this strategy will provide part of the necessary substance for determining the degree to which government directives have been fulfilled in the Zone.

Types of Industry

Prior to the informal establishment of the Special Economic Zone in 1979, the industrial base of Shenzhen was very weak. In 1978, there were only 216 industrial enterprises in the whole municipality: they were engaged in producing simple agricultural equipment and petty commodity goods (e.g. sugar, tobacco, and fertilizers). Industrial output amounted to Rmb 615,400,000, and the workforce totalled 6,550 (Zhou, 1984; Hu 1984b). Following the informal adoption of the Special Economic Zone policy in 1979, and its formal implementation in 1980, the industrial sector in Shenzhen expanded rapidly. By the end of 1984, the number of industrial enterprises had increased to 609 (*Shenzhen Special Economic Zone Yearbook 1985:389*). Light industry had become the major emphasis of development. Its output had increased from Rmb 57,560,000 in 1978 to Rmb 257,120,000 in 1982,³ Rmb 443,890,000 in 1983, and Rmb 1,150,180,000 in 1984, accounting for 86 per cent, 77 per cent and 78 per cent of total industrial output respectively in each year (Hu, 1984b; *Shenzhen Special Economic Zone Yearbook 1985:587*).

Table 4.7 illustrates the supremacy of the electronics industry in the Municipality's industrial structure in 1983 and 1984. As most industries concentrated in the zonal area, the trend can also be applied to the Zone. The electronics output was responsible for more than 45 per cent of the total industrial output and its significance had risen sharply by 15 per cent within these two years. The second largest industry, textiles, only accounted for around 9 per cent in both years, and the third, food, 5 to 8 per cent of output. In 1983, other industries were, in descending order of value, chemicals, building materials, leather, sewing, metal, stationery, forestry and electrical goods. As electronics is so dominant it is worthy of more detailed attention.

Electronics. As shown in Table 4.8, the electronics industry accounted for 48 per cent of total industrial production between 1981 and 1984. Its share of total output expanded from 45 per cent in 1983 to 60 per cent in 1984, and the absolute value of production almost tripled, reaching an all-time high of Rmb 1,036,000,000. Also, the

3. All industrial output value is adjusted to the 1980 constant value.

**Table 4-7: Industrial Outputs* of Shenzhen Municipality
by Sector, 1983 and 1984**

Industry	Rmb (1000)		Per cent	
	1983	1984	1983	1984
Electronics	327,000	1,035,910	45.4	60.0
Textiles	68,204	157,970	9.5	9.2
Food	58,778	89,630	8.2	5.2
Chemicals	48,834	60,740	6.8	3.5
Building materials	34,622	71,670	4.8	4.2
Leather	19,142	34,580	2.7	2.0
Sewing	18,977	21,470	2.6	1.2
Metal	16,011	35,000	2.2	2.0
Stationery	13,460	85,200	1.9	4.9
Forestry	8,602	19,250	1.2	1.1
Electrical	5,100	720	0.7	0.0
Miscellaneous	101,970**	113,940**	14.1	6.6
Total	720,700	1,726,080	100.0	100.0

Notes: * All values adjusted to the 1980 constant price. Hu (1984) quoted the 1983 figures as zonal outputs, but the Yearbook published them as municipal value. Since the Yearbook is the official source, the latter's parameter is adopted. ** These figures differ from those contained in the Yearbook because the outputs of the non-electronic machinery and the paper-making sectors are included.

Sources: Based on Hu (1984b:196-7); *Shenzhen Special Economic Zone Yearbook 1985:588-9*.

number of electronics enterprises in the Municipality has increased from forty-one in 1983 to 160 in 1984, and more than three-quarters of the enterprises were located within the Zone (*Shenzhen Special Zone Daily*, 30 June 1985; *Shenzhen Special Economic Zone Yearbook 1985:391*). The dominance of the industry can be reflected in employment as well. The number of workers employed in the electronics industry expanded from 4,000 in 1981 to 5,400 in 1983. Then the industry really 'took-off' as it

**Table 4-8: Output Values of the Electronics Industry
in Shenzhen Municipality, 1981-1984**

Year	Rmb (1,000)	Total Industrial Output Per cent
1981	122,000	50.4
1982	128,000	35.6
1983	326,000	45.4
1984	1,036,000	60.0
Total	1,612,000	Average 48.0

Note: All values are adjusted to the 1980 constant price.

Source: Based on *Shenzhen Special Zone Daily*, 30 January 1985, Hu (1984:194);
Shenzhen Special Economic Zone Yearbook 1985:588.

employed 15,000 in 1984 - two-thirds of Shenzhen's total employment (*Shenzhen Special Zone Daily*, 30 January 1985; *Yearbook of China's Special Economic Zones 1983:164*).

**Table 4-9: Technological Level of Industrial Production
in Shenzhen Municipality, 1983-1984**

Year	Technology-Intensive Per cent	Equipped with Advanced Facilities Per cent	Labour-Intensive Per cent
1983	3	41	56
1984	5	45	50

Source: Based on *Shenzhen Special Zone Daily*, 8 May 1985; Liu and Liang (eds.), 1985:80.

Capital Intensity

Unfortunately, there are no detailed data on the capital intensity of different types of industry in Shenzhen. However, an informal source, the Vice Mayor of Shenzhen Municipality (Zhou Xiwu), has stated in the *Shenzhen Special Zone Daily* (8 May 1985) that labour-intensive industry has decreased from 56 per cent in 1983 to 50 per cent in 1984 (Table 4.9). Correspondingly, industrial enterprises equipped with advanced technological equipment rose slightly from 41 per cent in 1983 to 45 per cent in 1984. Likewise, industrial production using 'advanced technology' increased from 3 per cent in 1983 to 5 per cent in 1984.

The technological levels of imported equipment have been crudely classified by the Vice Mayor, the *Shenzhen Special Economic Zone Yearbook 1985* and Liu and Liang (eds.) (1985) (see Table 4.10). In particular, the Vice Mayor has highlighted that advanced equipment exceeded that of mediocre equipment by 9 per cent in 1984. Also, 'backward equipment' has dropped significantly - from 16 per cent to 1 per cent between 1983 and 1984. Thus, Zhou concluded that the technological level of imported equipment had been rising. A closer examination of the main industry in the Zone, electronics, may further illustrate this situation.

Table 4-10: Technological Level of Imported Equipment
in Shenzhen Municipality, 1983-1984

Year	Advanced Per cent	Mediocre Per cent	Backward Per cent
1983	37	47	16
1984	54	45	1

Source: Based on *Shenzhen Special Zone Daily*, 8 May 1985; Liu and Liang (eds.), 1985:80; *Shenzhen Special Economic Zone Yearbook 1985*:389.

Electronics. By 1984, more than 3,840 sets of equipment and machinery have been imported for the electronics industry. These included: the Japanese solar colour television production line; liquid crystal indicators; and production lines for printed circuits, integrated circuits, computer and soldering equipment. The number of technical personnel also increased from 400 in 1983 to 800 in 1984. Production of electronic products, however, has been concentrated on the assembly of household

appliances, electronic equipment, colour television sets, stereo equipment, computerized telephone systems and micro computers. Production of electronic components and devices, such as integrated circuits and quartz resonators, also began to take place, and is expected to flourish between 1986 and 1990 (Hu, 1984b:194-5; *Zhongguo Jingji Tequ Shouce*:13; *Shenzhen Special Zone Daily*, 30 January 1985, 19 February 1985, 25 June 1985, 26 June 1985). No direct data, however, are given on the technological level of electronics production. Nevertheless, it can be inferred from the Vice Mayor's press release that production involved both intensive labour and advanced or mediocre equipment. Yet it must be understood that the facilities do not require the on-site producers to articulate the technology, but simply to assemble manufactured parts. Thus, having specified the general types and capital intensity of industries in Shenzhen, we can proceed to examine their location.

**Table 4-11: Planned Industrial Districts in
Shenzhen Special Economic Zone**

Districts	Area square kilometres
Liantang	0.8
Shuibe	0.5
Bagualing	1.0
Shangbu	1.4
Futian	4.8
Chegongmiao	2.0
Shahe	1.0
Nantou	1.5
Houhai	1.0
Shekou	1.0*
Total	15.0

Note: * In July 1984, the Guangdong Provincial Committee passed a proposal for expanding the size of Shekou to 11 sq km.

Source: Based on *Zhongguo Shouce* 1984:1-51.

Industrial Location

Ten industrial districts are planned in the Shenzhen Special Economic Zone (Table 4.11). Futian is the largest district, occupying an area of 4.8 sq km, Chegongmiao is the second largest (2 sq km), while Bagualing, Shahe, Houhai, Shekou, Shangbu and Nantou are medium-sized, and Liantang and Shuibei are relatively small.

As illustrated in Figure 4.3, these districts generally spread across the Zone's southern and southwestern regions. Most districts are set up for housing a varied range of industries except for Shangbu, which is specifically designed for electronics, Shuibei for machinery and hardware, and Liantang for textiles (*Zhongguo Shouce*:1-51). Two new industrial estates are being contemplated: an industrial district located around Futian, assigned for teaching, research and production of scientifically-advanced goods; and an oil logistics base to be located along Shenzhen Bay which is to be associated with planned petro-chemical plants (*Economic Reporter*, 17 September 1984). By 1984, the industrial districts of Shangbu, Shahe, and Shekou had been largely completed and put into operation. While the construction of Shuibei, Bagualing, and Nantou has been proceeding, others are either at a very preliminary stage or in abeyance.

Industries, therefore, had been mainly concentrated in the Industrial Districts of Shangbu, Shahe and Shekou. Shangbu acquired the highest concentration of output value and number of enterprises. In 1984, the industrial output of Shangbu amounted to Rmb 600,000,000 - one third of total municipal industrial output (*Shenzhen Special Zone Daily*, 26 June 1985). As illustrated in Figure 4.4, the industrial output value of Shekou was significantly smaller than that of Shangbu, amounting to about Rmb 280,000,000⁴ (*Shenzhen Special Zone Herald*, 14 March 1985). The output value of Shahe has not been released. However, it could not have been higher than that of Shekou since its scale of operation is smaller, as reflected in Figure 4.5.

In terms of number of firms, Figure 4.5 shows that Shangbu acquired the highest concentration in 1984. Moreover, these industrial firms were mainly involved with electronics production. In contrast, Shahe possessed a much smaller number of firms but its industrial structure was more diversified, handling a wider variety of light industries including electronics. Conversely, Shekou possessed a wider manufacturing base, and a more even distribution of industrial types as well (including heavy and light industries). It seems that the Luohu Administrative District placed a major emphasis on the

4. The original figure was given in Hong Kong dollars. Conversions are based on the exchange rate of Rmb 35.1 to HK\$100, which was prescribed on 31 December 1984.

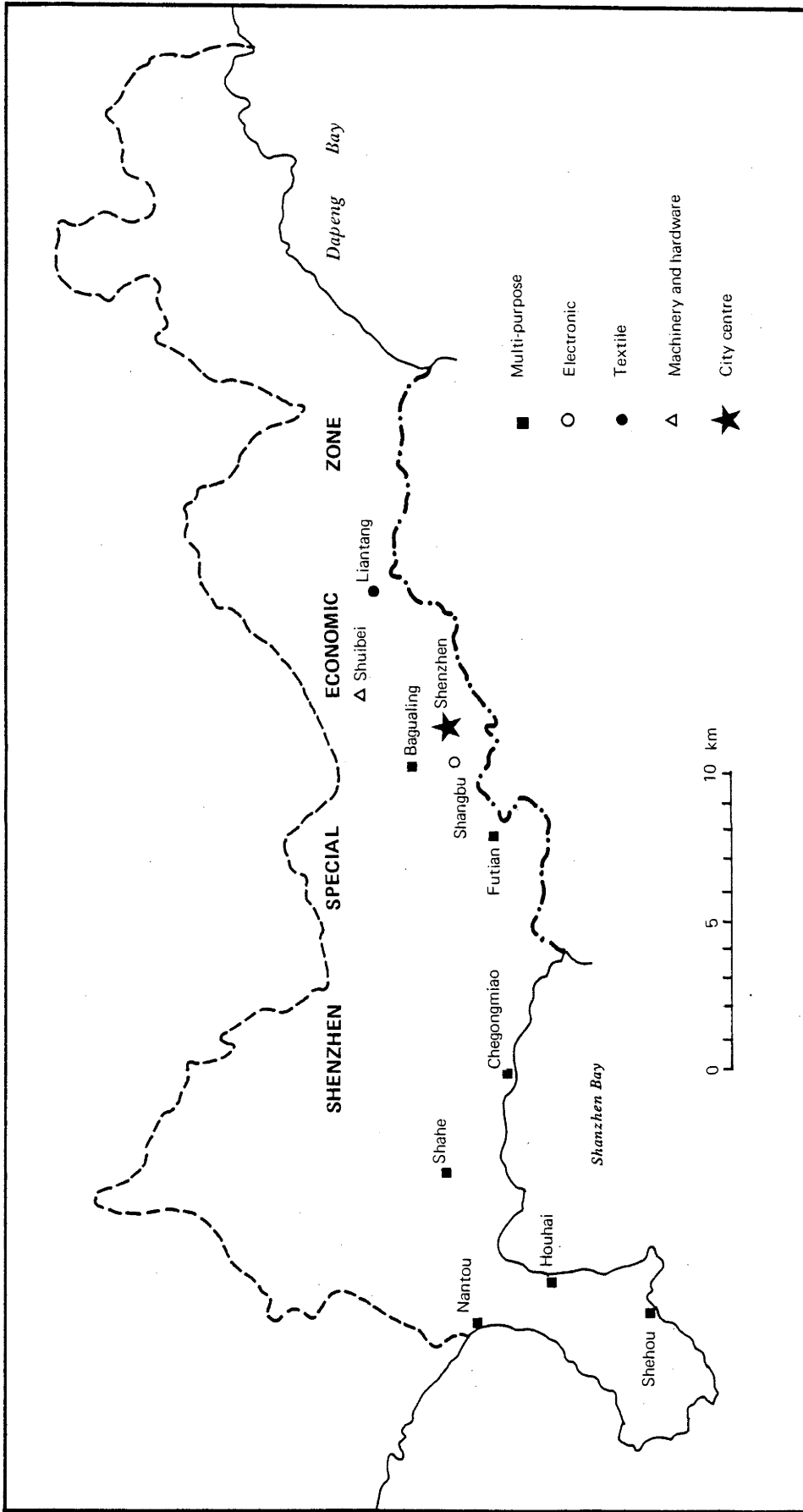


Figure 4.3: Planned industrial estates in Shenzhen Special Economic Zone. (Source: Based on Zhongguo Shouce 1984:1-51.)

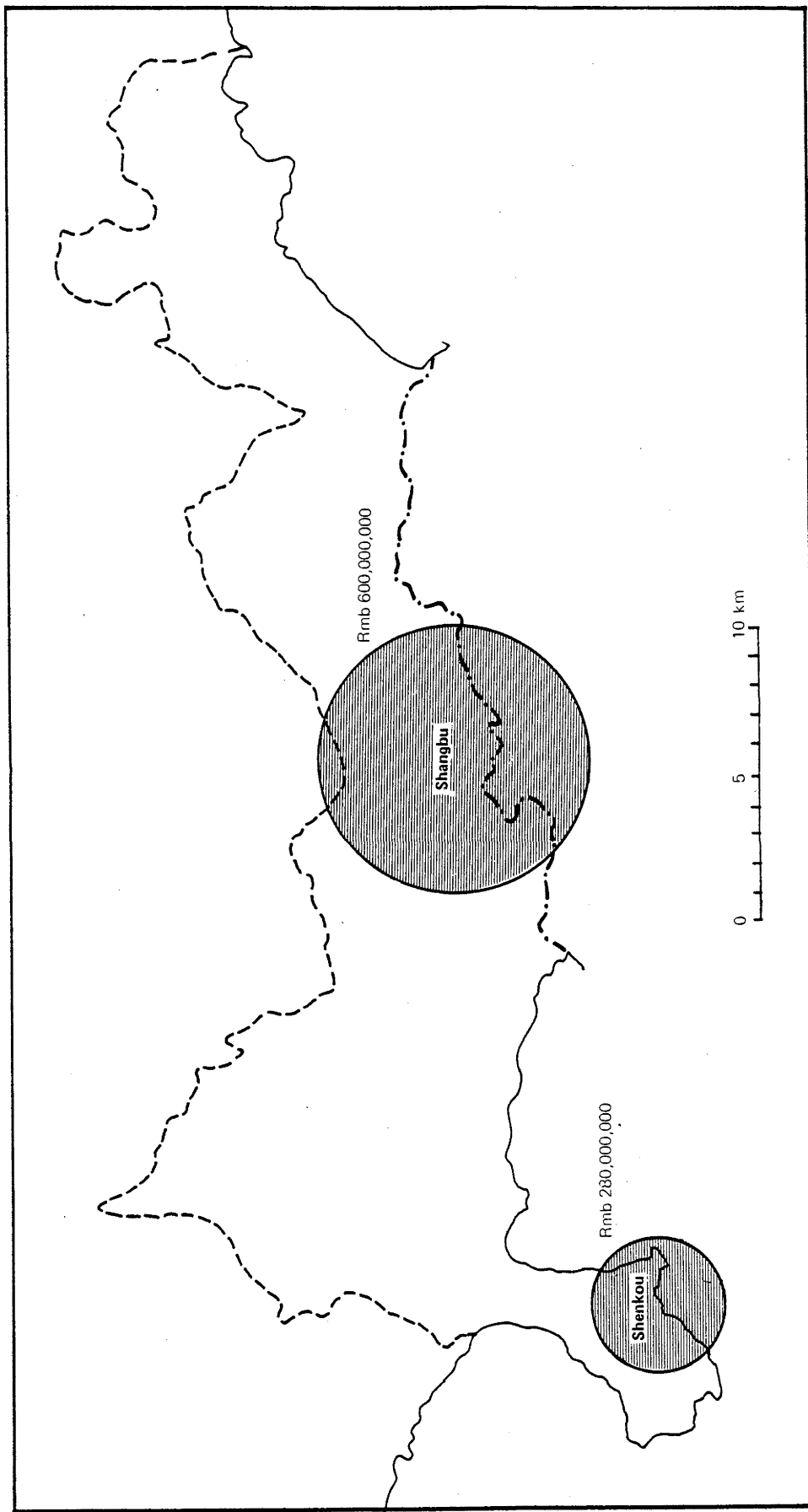


Figure 4.4: Industrial distribution by output value in Shenzhen Special Economic Zone 1984. (Source: Based on Shenzhen Special Zone Herald, 14 March 1985, 26 June 1985.)

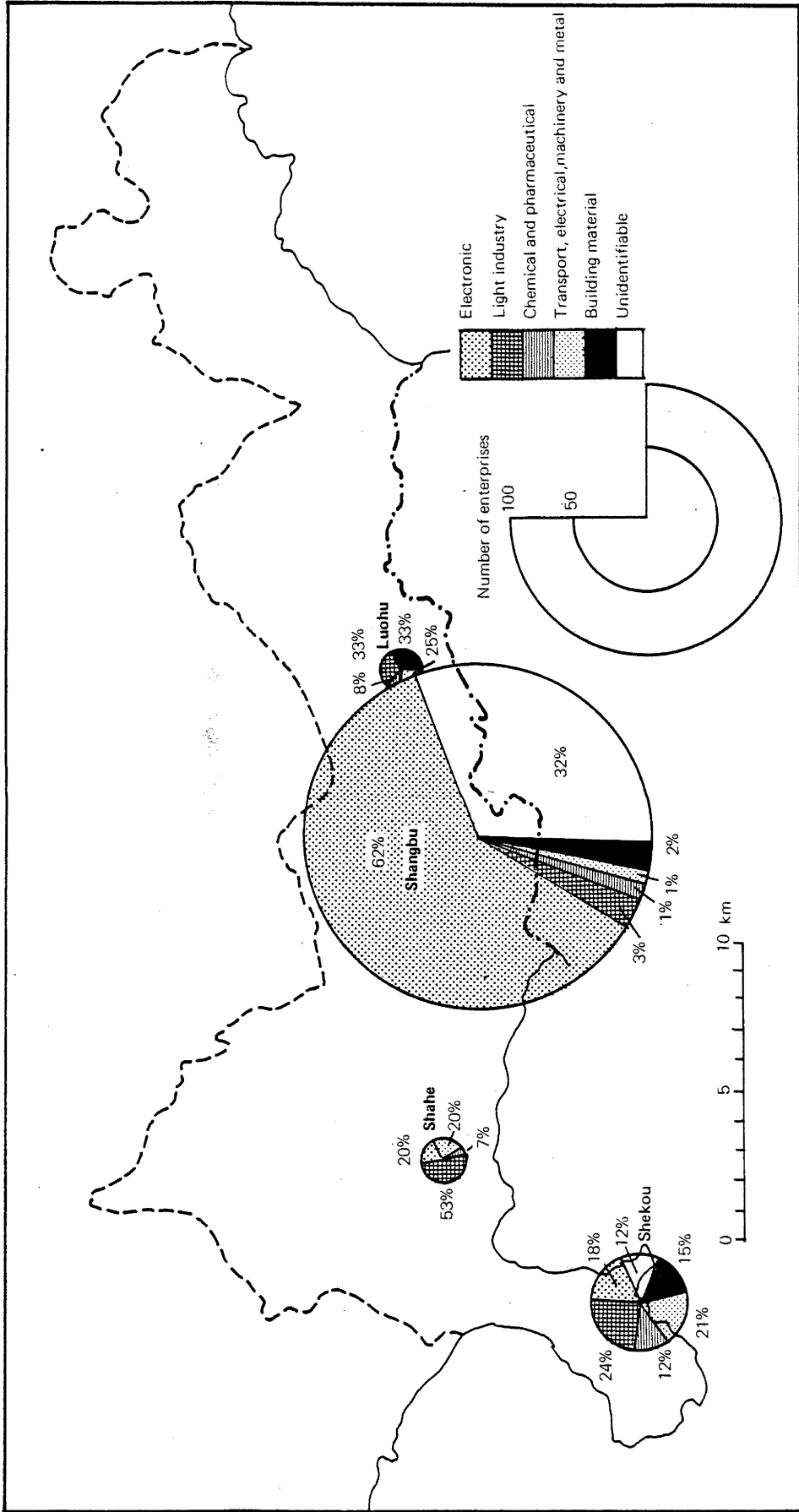


Figure 4.5: Industrial distribution by number of enterprises in Shenzhen Special Economic Zone 1984.
 (Source: See Table 4.12.)

building material industry.⁵ However, since the original data were incomplete both in terms of number of enterprises and nature of industrial production, the representation could, in some respects, be misleading.

A finer breakdown of the firms is provided in Table 4.12. Shangbu had two-thirds of the 191 industrial firms in 1984. Thirty-four were located in Shekou, while only fifteen were established in Shahe. Eighty firms in Shangbu (i.e. 62 per cent) were electronics enterprises. Although forty-one firms cannot be identified, the dominance of the electronics industry is irrefutable. Similarly, electronics was the largest industry in Shahe, even though it accounted for only one-fifth of its firms. Shekou also had its highest number of enterprises in electronics, but this was closely followed by the building materials, and chemical and pharmaceutical industries. As these firms are coupled with other industries, such as furniture, food and beverages, machinery and metals, transport, and electrical goods, the industrial structure of Shekou can be described as heterogeneous. Data on the Luohu Administrative District is incomplete. Nonetheless, it is clear that it has not been assigned as an industrial base. In essence, it is a commercial and service-trade centre. Consequently, the case studies are restricted to Shangbu, Shahe and Shekou, particularly the latter as it has been spotlighted as a model district because of its high speed of construction, prominent industrial sector, high proportion of manufactured exports and the dominance of foreign-related enterprises.

Shangbu Industrial District. Shangbu Industrial District is situated to the west of Shenzhen Old Town (Fig. 4.3). Bounded by Shangbu Road on the east, Futian Road on the west, Xihu Road on the north, and Shennan Road Central on the south, the District occupies an area of 1.1 sq km (Fig. 4.6). In 1981, it was planned that the District would be developed into a processing area for electronics and light industrial products (Wong (ed.), 1982). By early 1985, over one hundred blocks of standardized factories had been built. More than thirty joint ventures, underpinned by investment from the United States, Holland, Japan, the Philippines and Hong Kong, had been established. The number of domestic enterprises, however, had grown more quickly. One hundred industrial firms had been set up by early 1985 under the sponsorship of various industrial bureaux in the Central Government (such as the Aeronautics Industrial Bureau and the Electronics Industrial Bureau) and pertinent institutions or enterprises from different provinces and municipalities. The District had become one of the most important industrial bases by far in Shenzhen. Although electronics had been the pacesetter, textiles, furniture and printing had also experienced rapid growth.

5. The Luohu Administration District includes the planning districts of Shenzhen Old Town, Luohu District and Reservoir District.

Table 4-12: Industrial Distribution by Number of Enterprises
in Shenzhen Special Economic Zone, 1984

Industry	Location				Total
	Luohu Administrative District**	Shangbu Industrial District	Shahe Industrial District	Shekou Industrial Zone	
Electronics	0	80	3	6	89
Garment and accessories	2	2	1	2	7
Furniture	0	1	2	2	5
Food and beverages	1	0	0	2	3
Miscellaneous light industry	1	1	5	2	9
Chemical and pharmaceutical	1	1	1	4	7
Transport	0	1	2	2	5
Electrical	1	0	0	3	4
Machinery and metal	2	0	1	2	5
Building materials	4	3	0	5	12
Unidentifiable*	0	41	0	4	45
Total	12***	130	15	34+	191++

Notes: * This is due to either the non-specification by the name of the company as in the case of Shekou enterprises, or no further breakdown of industrial types, as in the case of Shangbu enterprises. ** Inconsistency in the sub-categorization of location is inevitable, as the data are so classified by the original source. *** Underestimation could be substantial, but no further data are available.

+ This number of industrial enterprises, compiled from the list of enterprises given by the *Zhongguo Jingji Tequ Shouce*, is higher than that of twenty-five enterprises quoted by the *Economic Reporter* (9 July 1984). The inconsistency could possibly be due to the inclusion of operating, or near-operating enterprises by the *Zhongguo Jingji Tequ Shouce*. However, since the number of industrial products has increased from around fifty in July 1984 to over one hundred in March 1985 (*Economic Reporter*, 9 July 1984; *Shenzhen Special Zone Daily*, 14 March 1985), and the number of operating industrial enterprises has increased to forty by July 1985, the number of operating industrial enterprises at the end of 1984 could have increased to around thirty. Indeed, the later publication of the *Shenzhen Special Economic Zone Yearbook* confirmed the total of thirty-six. ++ Since only the main industrial centres are included, this total is lower than the overall number of industrial enterprises in the Zone. At these were 238 foreign-related and 'neilian' enterprises at the end of 1984, this table includes 80 per cent of the main industrial enterprises (*Shenzhen Special Economic Zone Yearbook* 1985:389).

Sources: Based on *Zhongguo Jingji Tequ Shouce* 13:171-7; *Business Directory of China Special Economic Zones and Southeast Asia* (2):3-184; *Shenzhen Special Zone Herald*, 16 May 1983, 24 April 1985; *Wen Wei Po*, 30 December 1984; *Shenzhen Special Economic Zone Yearbook* 1985:102, 389.

Export of double-knitted garments, textile equipment, mattresses and sofas occurred. In early 1985, about thirty enterprises exported more than 50 per cent of their production (*Shenzhen Special Zone Daily*, 25 June 1985, 28 June 1985).

The high concentration of electronics factories in Shangbu has earned it the nickname 'electronics town' (see Fig. 4.6). In early 1985, about 80 electronics enterprises were operating in the District (Table 4.12). Although the District had been mainly engaged in the assembly of electronic appliances in the past, it was reported that by June 1985, thirty enterprises had been set up to produce electronic components and devices. Three hundred types of components, including integrated circuits and quartz resonators were produced in the District. Besides supplying local factories, some of these products were exported. In June 1985, it was declared that the electronics industry in Shangbu no longer needed to rely on imported components and devices - they would be produced from within China (*Shenzhen Special Zone Daily*, 26 June 1985). Hence, it seems that Shangbu had spearheaded the development of the electronics industry in the Zone. However, the prime force of development had been from within China itself: domestic investments, internal markets, and local resources.

Shahe Industrial District. The second district, Shahe, is located fourteen km to the west of Shenzhen Old Town, and fourteen km to the north-east of Shekou (Fig. 4.3), occupying an area of 12.6 sq km. The District is administered by the Shahe Overseas Enterprise Company which is directly headed by the Overseas Chinese Office in the State Council. The Company set out to attract investment from overseas Chinese. Nevertheless, investment from Hong Kong, Taiwan and foreign countries have been welcomed. Although Shahe was planned as an industrial district - with an emphasis on electronics and some noxious industries - commerce, pastoral farming, breeding and tourism were also desired as complementary activities (Wong, 1982).

The key strategy of the Company has been to emphasize industry using advanced technology. The eight main production lines imported by the Overseas Chinese Electronics Enterprises were products of the seventies and eighties. The equipment installed by Shenzhen Overseas Chinese Furniture Manufacturing Factory was as advanced as anywhere in the world (e.g. the multi-phase drills, seaming machines, spray oven-dry equipment and high-voltage cables). It has also been claimed in the popular press that all enterprises have been successfully run - a tribute to efficient management and competent leadership (*Shenzhen Special Zone Herald*, 16 May 1983).

By 1983, twenty projects had been signed, involving Rmb 117,000,000 foreign investment. As shown in Table 4.12, fifteen industrial enterprises were in operation during 1984. These included electronics, vehicle repairs, textiles, the manufacture of plastic and silk flowers, nylon beds, furniture, air conditioners, hardware, zips,

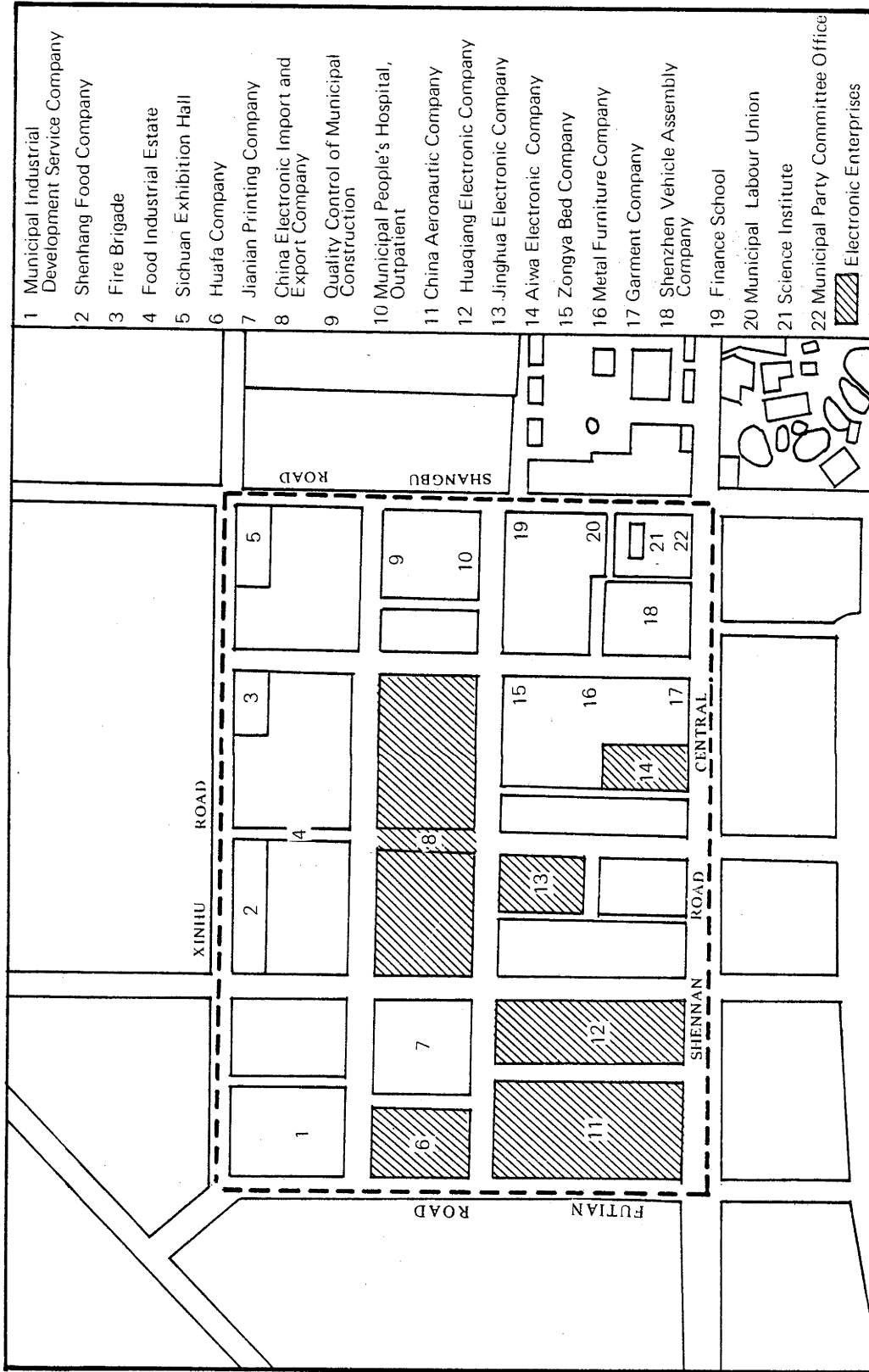


Figure 4.6: Main enterprises in Shangbu Industrial District. (Sources: Based on Shenzhen Special Zone Daily, 19 February 1985; Map of Shenzhen, Guangdong Sheng Ditu Chubun Se.)

spectacles, photographic paper and handbags. Contrary to established policy, however, all but one enterprises were sponsored by investment from Hong Kong. Due to the District's connection with overseas Chinese residents, all workers employed were either returned overseas Chinese or members of their families (*Zhongguo Jingji Tequ Shouce*, 1984:135-42).

Shekou Industrial Zone. Shekou, the third district under review, was announced as an industrial zone by the State Council as early as 30 January 1979, more than eighteen months prior to the formal inauguration of the Shenzhen Special Economic Zone. Technically, Shekou fell under the jurisdiction of Shenzhen Municipality when the Municipal Government was established in 1980. In reality, it has been administered by the China Merchant Steam Navigation Company - an organization administered by China's Ministry of Communication in Hong Kong. Majoring in shipping activities, the Company has also diversified itself into a multifarious corporation handling commercial and industrial activities. It has expanded beyond its traditional agency role to supervise the massive purchase of secondhand vessels, and represents China in handling its orders for new, technically advanced vessels. In Hong Kong, it has: invested in shipyards, warehouses and repair facilities; developed industries relating to shipping; and supervised a number of deals ranging from container leasing to the purchase of an oil rig. Hence, the Company has both the qualifications and experience to handle foreign investment. Not surprisingly, the Company has been authorized by the State Council to develop Shekou with its own capital.

The Zone is located on the east coast of the Pearl River estuary and is embraced by Shenzhen Bay - an area with convenient sea and land transport connections (Fig. 4.3). It is separated from the New Territories of Hong Kong only by Shenzhen Bay. Shekou is 30 km from the city centre of Shenzhen, 150 km from Guangzhou by road, 20 nautical miles from the Central District of Hong Kong, and 80 nautical miles from Guangzhou by sea.

Shekou was scheduled to develop into an industrial town with a population of 20,000. The original intention was that it should concentrate on joint ventures, with China acting as one of the partners. The China Merchant Steam Navigation Company has received a special mandate over Shekou from Beijing that joint ventures do not need to be approved by Beijing's China International Trust Investment. Although consumer electronics industries would also be targetted, the emphasis was on heavy industry.

As shown in Figure 4.7, the Shekou Industrial Zone is composed of two smaller zones: the Fifth Bay Zone and the Sixth Bay Zone, the former destined for heavy industrial use and the latter light industry. It was planned that the shallow bay in the Fifth Bay would be reclaimed and that a 600 m seawall would be erected. A pier

designed to accommodate ships of up to 3,500 dead-weight tons would be built, as sea transport would probably be the main form of access to Shekou in the immediate future. Approximately 309,000 sq m of land would be made available for heavy industrial use after reclamation. Three enterprises relating to shipping were planned - a container factory, a steel factory, and a yacht factory. Non-shipping enterprises in the blueprint included an acetylene factory, an oxygen factory, an animal feeding factory (related to the chemical industry), a machine factory, and a flour mill. The light industrial designated Sixth Bay has an area of around 412,000 sq m. Its enterprises included an ice factory, and factory buildings for the electronics industry. At the rear of the Sixth Bay, land had been assigned for a paint factory, an aluminium factory, a sewage treatment plant and a waterworks. Another 412,000 sq m of land for industrial use would be added to the Sixth Bay area from further reclamation.

The construction of the Shekou Industrial Zone began with the creation of basic infrastructure. 'The five communications (sea and land transport, water supply, electricity and telecommunications) and one levelling' were completed by the end of 1980. Subsequently, factories were completed according to the plan. By April 1984, the Zone had reached more than eighty agreements with foreign investors from the United States, Japan, Britain, Denmark, New Zealand, Hong Kong and Macao. Fifty-one projects, twenty-five of which were industrial enterprises, have been put into operation (*Shenzhen Special Zone Daily*, 11 April 1984). By the end of 1984, the number of industrial enterprises in operation had increased to thirty-six (*Shenzhen Special Economic Zone Yearbook 1985:102*).

As indicated in Table 4.12, Shekou possessed a variety of industries. Its light industries included the production of electronic goods (such as tape recorders, calculators and television sets), garments, cushions, furniture, ornaments, confectionery, animal feed stuffs, and electrical household appliances. The heavy industries included quarrying, the production of aluminium products, concrete, metal building equipment, other building materials, marine paint, oxygen, chemicals, machinery, yachts and steel products. Thus, Shekou met its goal of creating a broad and diverse industrial base.

Diversity was not the sole basis of Shekou's success. Other factors were the high speed of construction, its ability to foster industry as the main sector of the economy, its ability to export a major proportion of its industrial products, and the dominance of foreign-related enterprises. Between 1979 and December 1980, the basic infrastructure was completed in Shekou. Its accomplishment included: the completion of a special-purpose 600-metre dock capable of handling 3000 to 3500-ton (deadweight ton) ships and a navigation channel of 3,400 m; a road leading to Guangzhou and Shenzhen; a waterworks and water supply system; and the installation of a high-voltage cable, an

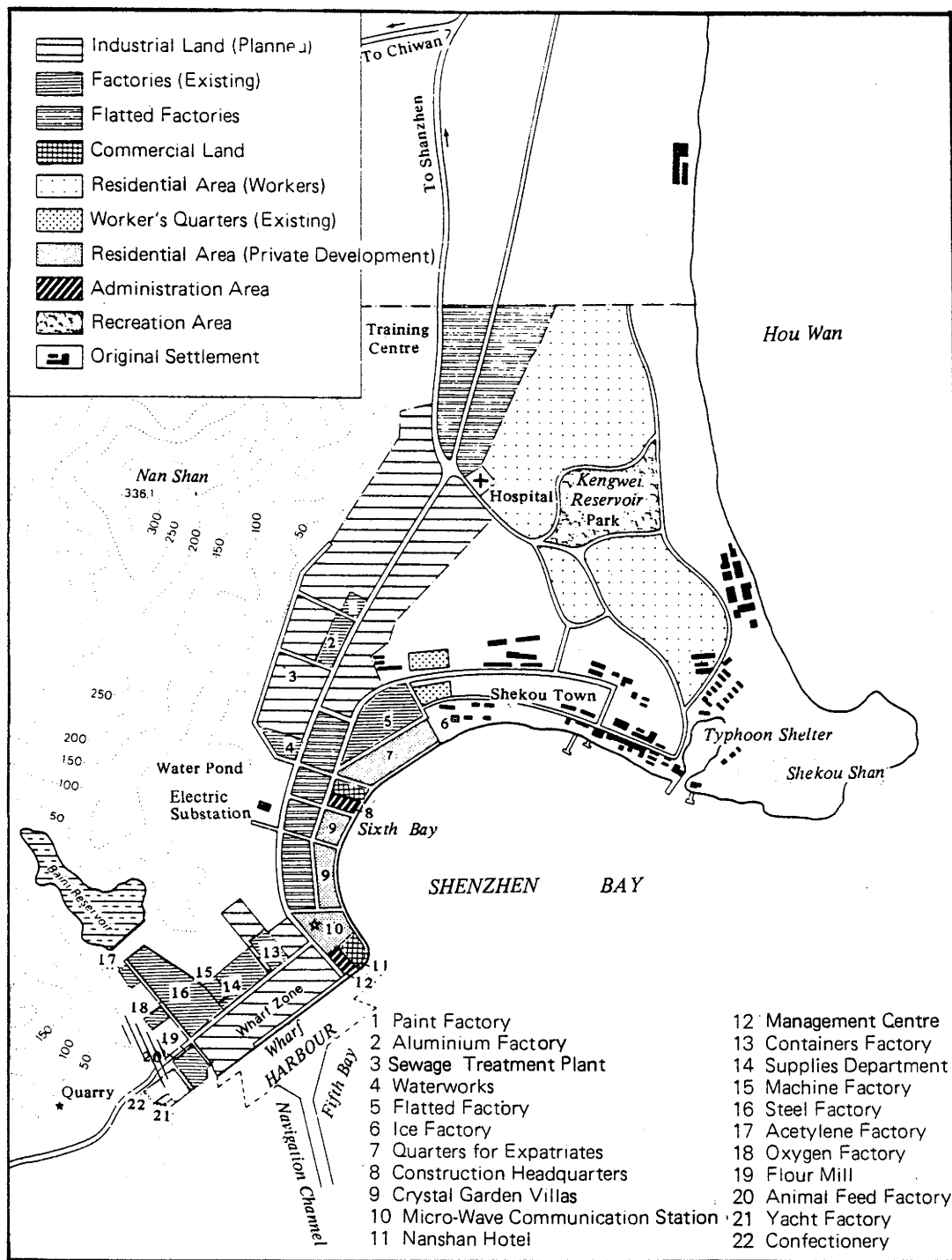


Figure 4-7: Revised land use zoning plan of Shekou.

(Source: Based on *Investor's Handbook* (revised edition), China Merchants Shekou Industrial Zone in Shenzhen Special Economic Zone, September 1981.)

electricity transformer station and a micro-wave communication station (*Guangdong Jingji Tequ Yaolan* 1982:24-5). By 1982, the Zone had achieved a built-up area of 274,681 sq m, which offered different types of factory space. Such speed has been praised by the Chinese authorities. As pointed out by *Shijie Jingji Daobao* (*Guangdong Jingji Tequ Yaolan* 1982:25-6), the main factor of the Zone's successful creation was the use of public tenders for construction projects. Competition induced by public bidding and high incentives offered by the award system raised the quality and the speed of construction enabling the completion of one floor area within a week rather than a month.

Another feature of Shekou has been that industry has become the main sector of the economy. In 1982, twenty-five out of forty-two agreed projects were industrial, constituting 60 per cent of the total number of projects, and 75 per cent of the total amount of investment (*Guangdong Jingji Tequ Yaolan* 1981:23). By 1983, thirty-nine of the seventy-four agreed projects and twenty-five of the fifty-one enterprises were in the industrial sector (Table 4.13). The manufacturing sector was also able to attract a major share of total foreign investment (64 per cent) injected into the Zone (Table 4.13). This trend has continued. By 1984, seventy-one of 148 agreed projects had been industrial ventures. Hence, the industrial sector has been of pivotal importance to Shekou since 1982 (*Shenzhen Special Economic Zone Yearbook* 1985:102).

Table 4-13: Foreign Investment Committed to Shekou, 1979-1983

Economic Sector	Amount		Committed Project		Operating Project	
	HK dollars (1,000)	Per cent	Number	Per cent	Number	Per cent
Industry	532,200	63.6	39	52.7	25	49.0
Commerce	101,170	12.1	19	25.7	14	27.5
Tourism	18,000	2.2	1	1.4	1	2.0
Transport	32,000	3.8	3	4.1	2	3.9
Building	2,750	0.3	6	8.1	5	9.8
Real estate	150,400	18.0	6	8.1	4	7.8
Total	836,520	100.0	74	100.0	51	100.0

Source: Based on Hu (1984a:147).

Furthermore, Shekou has been able to export a major portion of its industrial products. In 1983, almost 75 per cent of industrial products were exported (*Shenzhen Special Zone Daily*, 17 September 1984). Similarly, about 70 per cent of manufactured goods were exported in early 1985 (*Shenzhen Special Zone Daily*, 14 March 1985).

Full assessment of the significance of foreign investment to Shekou is impeded by the absence of data on overall development capital channelled to the Zone. Nevertheless, foreign investment occupied a reported 91 per cent of total capital put into use (*Shenzhen Special Economic Zone Yearbook 1985:102*), and a breakdown of the forms of investment of existing enterprises sheds some light on this matter. As illustrated in Table 4.14, joint ventures were the major form of investment both in terms of investment amount (54 per cent) and number of committed and operating projects (both 51 per cent respectively) between 1979 and 1983. While sole proprietorships and co-operative ventures ranked second in terms of investment amounts and number of projects respectively, 'neilian'⁶ enterprises were the least significant in all instances. This trend has continued. In July 1985, 102 of 192 agreed projects (53 per cent) were joint ventures and twenty-seven were sole proprietorships (14 per cent) (*Shenzhen Special Zone Daily*, 17 July 1985). Thus, joint ventures have been the backbone of Shekou's development. In short, Shekou has been able to meet the main goals set for the overall economic development of Shenzhen - the creation of externally-oriented industry based on foreign investment.

This 'unmasking' of the industrial structure of Shenzhen has shown that its industrial development has been based on light industries, especially electronics. Although equipment of advanced technology has been imported, the bulk of industrial production has been labour-intensive. Industrial development has been concentrated in three discrete centres - Shangbu, Shahe and Shekou - each administered by a separate organization. Such an arrangement led to marked differences between the centres. Shangbu possessed the highest concentration of industry, but both its sources of investment and markets were domestic. Conversely, Shahe had strong ties with overseas Chinese investment but its scale of industry is small. In marked contrast, Shekou has been able to develop a wide, externally-oriented industrial base. Before an overall assessment of industrial development of Shenzhen can be undertaken, its economic performance has to be examined in more detail.

6. 'Neilian' has been loosely defined as joint economic ventures between zonal and non-zonal enterprises and agencies.

Table 4-14: Forms of Investment in Shekou, 1979-1983

Investment Form	Committed Amount		Committed Project		Operating Project	
	HK dollars (1,000)	Per cent	Number	Per cent	Number	Per cent
Joint venture	453,870	54.3	42	56.8	25	51.0
Cooperative production arrangement	152,150	18.2	16	21.6	13	25.5
Sole proprietorship	206,500	24.7	10	13.5	8	15.7
'Neillian' enterprise	24,000	2.9	6	8.1	4	7.8
Total	836,520	100.0	74	100.0	51	100.0

Source: Based on Hu (1984a:147).

ECONOMIC PERFORMANCE

The economic performance of Shenzhen needs to be assessed against the overall and specific goals that have been set for the Zone. The overall goals are to create Shenzhen as an industrialized city based on an externally-oriented economy. As set out in the earlier section, various planning targets constitute the specific goals. Accordingly, any assessment of economic performance has to examine the performance of industry in the overall economy, the contribution of foreign investments to Shenzhen's development, and finally, the fulfilment of planning targets, particularly those concerning industry and the export of manufactured goods.

Industrial Performance in the Overall Economy

Having examined the type and location of Shenzhen's industry, the focus shifts to assessing its role in the Zone's overall economic structure. A useful economic indicator is derived from comparing the output (or 'transactional value') of each sector.

Output. Table 4.15 shows that until 1983, retailing and construction were the Municipality's leading sectors in terms of output. Indeed, the total value of output and transactions between 1979 and 1984 highlighted that retailing and construction were the main forces of Shenzhen's economic development. Retailing transactions outstripped the

value of industrial output by Rmb 1,013,940,000 between 1979 and 1983. By 1984, however, industrial output had marginally surpassed retailing transactions and outpaced construction by Rmb 314,510,000.

Trading statistics further support the initial commercial inclination of Shenzhen's economy. A total amount of Rmb 1,437,000,000 was involved in trade in 1983, and Rmb 3,005,837,000 in 1984. Reflecting high purchasing power of internal markets, and the inability of domestic production to meet consumers' demands, the value of imports (entrepôt and direct) were four times greater than exports in 1983 and thrice as much in 1984. As a result, trade deficits of Rmb 961,000,000 and Rmb 1,518,163,000 were produced respectively in 1983 and 1984. Indeed, the entrepôt trade accounted for 80 per cent of total trade in 1983. The externally-oriented economy desired by the Government appeared a long way off.

Industrial growth, however, outpaced agriculture. As shown in Table 4.16, industrial output comprised less than half of total industrial and agricultural output in 1978 and 1980. Since then, it has outpaced agricultural output - a peak of 90 per cent being reached in 1984. Since 1981 - one year after the formal inauguration of the Zone - industry has dominated agriculture and the rural nature of Shenzhen has virtually disappeared.

Employment. Another key indicator is the size of the industrial workforce. By 1984, 50,000 workers had been employed by the manufacturing sector in the Zone, comprising 32 per cent of the total zonal employment. Compared with the sizes of the workforce in the other two main sectors, commerce and construction, industry constituted the largest source of employment since the commerce sector only employed 35,340 workers (23 per cent) and the construction sector 20,000 labourers (13 per cent) (*Shenzhen Special Economic Zone Yearbook 1985*:313, 389, 422, 606; Liu and Liang (eds.), 1985:76). A more sensitive indicator on a longer term basis is, however, the proportion of foreign investment committed to manufacturing.

Foreign investment. Table 4.17 shows that the industrial sector has received the highest amounts of pledged and actual investments (Rmb 6,302,300,000 and 1,833,970,000 respectively), comprising 38 and 44 per cent of total investment committed to, and received by, the Zone between 1979 and 1984. As the Zone was in its early stage of development, it is not surprising to find that property ranked second with 14 per cent of total investment and that it had acquired the highest investment utilization rate (53 per cent). The commercial and retailing sector only attracted 18 per cent of the Zone's total foreign investment. Hence, by 1984, the Zone has been able to channel foreign investment to the industrial sector, which is targetted as the main sector. Thus, the significance of industry in Shenzhen's overall economy has been expanding.

Table 4-15: Sectoral Output or Transaction Value of Shenzhen Municipality, 1979-1984
(Money amounts in Rmb 1,000)

Year	Industry	Agriculture	Retailing	Construction	Tourism	Total Trade		Entrepot Trade		Direct Trade	
						Import	Export	Import	Export	Import	Export
1979	60,610	114,770	126,790	-	-	-	-	-	-	-	-
1980	84,440	110,810	205,030	-	-	-	-	-	-	17,270	21,830
1981	242,820	130,050	347,940	-	60,000	-	-	-	-	-	-
1982	362,120	140,690	553,580	628,780	-	-	-	-	-	-	-
1983	720,410	152,130	1,251,000	830,000	425,070	1,199,000*	238,000*	998,500	196,310	200,500	41,690
1984	1,814,510	168,460	1,800,000	1,500,000	-	2,262,000	743,837	-***	-***	-	-
Total	3,284,910	816,910	4,284,340	-	-	-	-	-	-	-	-

Notes: Industrial and agricultural outputs are adjusted to the 1980 constant prices. Although the sources have not specified whether other outputs or transaction values have been deflated, it is likely that they have been adjusted since they are often published in conjunction with industrial and agricultural products. * The original figure is in US dollars. Conversion to Rmb is based on the exchange rate of 31 December 1983, which is US\$100:Rmb 198.54. ** Conversion is based on the exchange rate of 31 December 1984, which is US\$100:Rmb 280.27. ***The Shenzhen Special Economic Zone Yearbook 1985 has provided a figure of Rmb 12,416,000 for import and Rmb 109,081,000 for export. Such a great drop in entrepot trade between 1983 and 1984 is doubtful. As the data for direct trade are not given, the entrepot trade figures cannot be verified, and hence they are not quoted in the table.

Sources: Based on Shenzhen Special Zone Herald, 24 May 1982, 24 January 1983, 14 March 1983; Shenzhen Special Zone Daily, 11 January 1984, 30 March 1984, 8 April 1984, 13 September 1984, 11 January 1985, 15 January 1985; Chan (1985b); Yearbook of China's Special Economic Zones 1983:148; Guangdong Jingji Tequ Yaolan 1982:69-70; Zhang (1984:253-74); Wang (1984:275-92); Chen (1984a:3); Shenzhen Special Economic Zone Yearbook 1985:582, 439-43.

**Table 4-16: Proportion of Industrial Output in Total
Industrial Output and Agricultural Output, 1978-1984**

Year	Proportion Per cent
1978	34.4
1979	-
1980	35.9
1981	65.1
1982	72.0
1983	82.6
1984	90.2

Sources: Based on Hu (1984:197); *Shenzhen Special Zone Daily*, 11 January 1985.

By 1984, industrial output had marginally matched the transactional value of retailing, and substantially surpassed the output value of construction and agriculture. Further, the industrial sector had become the main source of employment by 1984. The high proportion of foreign investment committed to manufacturing implies that the industrial sector has been the most successful in tapping external capital. Thus, by 1984, manufacturing had developed as the dominant sector in the Zone. As industrial development is most closely related to foreign investment, the latter's contribution to the Zone's economic performance has to be considered further.

Contribution of Foreign Investment

In assessing the contribution of foreign investment to Shenzhen's development, attention is initially concentrated on the different sources of the Zone's investment and then shifted to its characteristics and nature. Capital channelled to Shenzhen has been derived from four major sources: (a) foreign investment; (b) domestic investment due to 'neilian' (economic integration with the interior) - joint economic ventures between zonal and non-zonal enterprises and agencies; (c) direct government investment and funding; and (d) bank loans (Table 4.18). Between 1979 and 1983, 95 per cent of total foreign investment received by Shenzhen stemmed from Hong Kong. By the end of 1984, seventeen countries (or territories), based mainly in Southeast Asia and Europe, had invested in Shenzhen⁷ (*Shenzhen Special Economic Zone Yearbook 1985:96*).

7. These countries comprise Hong Kong, the United States, Japan, Britain, Saudi Arabia, Thailand, Singapore, Holland, Australia, Belgium, Germany, Libya, Lebanon, Indonesia, Denmark, Switzerland and Norway.

**Table 4-17: Total Foreign Investment by Economic Sectors in
Shenzhen Special Economic Zone, 1979-1984**
(Money amounts in HK\$1,000)

Economic Sector	Pledged Investment		Utilized Investment		Utilization of Pledged Investment Per cent
	Amount	Per cent	Amount	Per cent	
Industry	6,302,300	38.4	1,833,970	44.3	29.1
Property development	2,318,810	14.1	1,230,880	29.8	53.0
Commerce and services	2,898,120	17.7	708,000	17.1	24.4
Tourism and entertainment	558,240	3.4	185,060	4.5	33.2
Transport and telecommunication	2,513,380	15.3	127,760	3.1	5.1
Agriculture	362,460	2.2	8,560*	0.2	2.4
Others	1,438,160	8.8	43,070	1.1	3.0
Total	6,391,470	100.0	4,137,300	100.0	-

Note: The 1983 figures are unavailable.

Source: *Shenzhen Special Economic Zone Yearbook 1985:597-8, 600.*

Nevertheless, this figure must not be overstated as 90 per cent of foreign investment was still derived from Hong Kong. Although multinational corporations might have invested through their subsidiary in the Colony, the majority of Hong Kong investment would have been indigenous. Consequently, investment projects valued above HK\$10,000,000 only took up 4.6 per cent of total investment in the Zone (*Shenzhen Special Economic Zone Yearbook 1985:97*). On the whole, by the end of 1984, a pledged amount of HK\$16,661,470,000 had been attracted from overseas by the Zone and HK\$4,137,300,000 had been used (*Shenzhen Special Economic Zone Yearbook 1985:596, 599*).

From 'neilian' sources, Shenzhen Zone has attracted a pledged amount of Rmb

Table 4-18: Sources of Investment in
Shenzhen Special Economic Zone, 1979-1984

Source	Investment (Utilized)	
	Rmb* (1,000)	Per cent
Foreign	1,472,051	20.2
'Neilian'	660,000	9.1
Central Government	64,150	0.9
Shenzhen Government	827,870**	11.4
Bank loans	4,250,000***	58.4
Total	7,274,017	100.0

Notes: * Conversion is based on the exchange rate of HK\$100:Rmb 35.58 on 31 December 1984. ** Total government expenditure on the Zone. *** Municipal figure.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:96-7, 99, 592, 596, 599, 604*; Hu (1984a:161); *Shenzhen Special Zone Daily*, 11 July 1984; *Wen Wei Po*, 9 November 1984; Chan (1985b:29).

1,880,000,000⁸ by 1984 from twenty-four bureaux and departments in the Central Government, over twenty provinces, municipalities and autonomous regions, and more than eighty localities, towns and counties (Hu, 1984a; *Shenzhen Special Zone Daily*, 11

8. There is no consistency in statistics on investment. For example, Hu (1984a) and *Shenzhen Special Zone Daily* (11 July 1984) reported an investment of Rmb 160,000,000, while Chan (1985a) and *Wen Wei Po* (9 November 1984) cited a tenfold figure of Rmb 1,600,000,000. The difference is probably due to the difficulties of interpreting 'neilian' which is loosely defined as 'joint economic venture between zonal and non-zonal enterprises and agencies' by Chinese sources such as *Shenzhen Special Zone Herald* (16 May 1983), *Shenzhen Special Zone Daily* (11 July 1984) and Hu (1984a). Since government investment in the Zone's infrastructure is often administered through the investment schemes of state bureaux and departments, Chan and *Wen Wei Po* have included part of their investment as 'neilian' investment. However, *Shenzhen Special Zone Herald*, *Shenzhen Special Zone Daily*, and Hu (1984a) did not explicitly mention infrastructure in their description of joint ventures under 'neilian' conditions. Furthermore, the latter two sources only reported a total domestic investment of Rmb 160,000,000 by the end of 1983. Thus, they could not have included internal investment on infrastructural construction. The more recently published *Shenzhen Special Economic Zone Yearbook 1985*, however, has quoted that an amount of Rmb 1,880,000,000 had been invested under 'neilian' by the end of 1984. Hence, infrastructural investments have been included. As the Yearbook is the official source of information, its definition of parameter and data are adopted by this study.

July 1984; *Wen Wei Po*, 9 November 1984; Chan, 1985a; *Shenzhen Special Economic Zone Yearbook 1985:99*). The exact locations of these sources, however, have not been released. By 1984, an amount of Rmb 660,000,000 had been used in various sectors of the Zone. Investment was normally in the form of joint ventures between zonal and non-zonal enterprises; foreign investors were also involved.

There has been no direct funding from the Central Government and Guangdong Provincial Government. Nevertheless, the State has invested in the Zone's infrastructural development. By 1984, the investment totalled Rmb 64,150,000 (*Shenzhen Special Economic Zone Yearbook 1985:592*; Liu, 1985:110). By the same date, the Shenzhen Municipal Government had also spent a total amount of Rmb 827,870,000 on the Zone (*Shenzhen Special Economic Zone Yearbook 1985:604*). As well, bank loans had constituted a major source of capital for development. By 1984, various banks in Shenzhen (e.g. Bank of China, Industry and Commerce Bank, Agricultural Bank and Construction Bank) had loaned Rmb 4,250,000,000 to the whole Municipality (Liu and Liang (eds.), 1985:109).

This analysis shows that Shenzhen has not been able to use fully its foreign investment sources. As shown in Table 4.18, total development capital had amounted to Rmb 7,274,071,000 by 1984. Although the volume of bank loans provided for the Zone alone would be smaller than that of the whole Municipality, the difference would be insignificant as development had concentrated in the zonal area. Foreign investments, among others, only contributed 20 per cent of the total development capital. Nevertheless, between the two targetted sources of capital, i.e. foreign investment and 'neilian', the former has almost doubled the latter.

A common complaint against Shenzhen has been that it has been unable to attract sufficient foreign capital to cover its infrastructure, let alone its total development (e.g. Chan, 1985a, 1985b). Site development of other export processing zones, however, has been the responsibility of the host governments (Sanchez, 1983). The Chinese Government's derivation of 26 per cent (Rmb 873,200,000) of the Zone's total construction cost (Rmb 3,395,810,000) from foreign investment by 1984 must be heralded (*Shenzhen Special Economic Zone Yearbook 1985:592-3*). A more detailed examination of the Zone's foreign investment is therefore necessary.

Investment amount. Table 4.19 shows that apart from 1984, the number of projects funded by foreign capital increased each year. There were, however, variations in the amount of investment. At the official inauguration of the Zone in 1980, there was an almost ninefold increase in pledged investment. Subsequently, a peak of agreed investment occurred in 1981 with HK\$6,748,400,000 - a reflection of the signing of two massive land development contracts, involving a total sum of HK\$4,400,000,000.

Conversely, a trough occurred in 1982 when only HK\$1,383,760,000 was injected - a drop of 80 per cent. The subsequent rise in 1983 and 1984 was more steady, maintaining rates between 63 per cent and 93 per cent. Also, the annual rate of increase of expended foreign investment in the Zone had fluctuated, showing a greater rise during the initial two years, a drop in 1982, and slower growth in 1983 and 1984. The amount of increase in 1984, however, almost doubled that of the previous year. By 1984, only 21 per cent (HK\$3,537,300,000) of the pledged amount of investment (HK\$16,661,470,000) had been imported, showing a relatively low utilization rate. Summing up, the use of foreign capital to the Zone has been increasing, except for 1983 and the higher amount of increase in 1984 may signify a take-off in the Zone's importation of foreign capital. Having examined the overall inflow of overseas capital, we can proceed to investigate the forms of foreign investment.

**Table 4-19: Foreign Investment in
Shenzhen Special Economic Zone, 1979-1984**

Year	Project Number	Pledged Amount HK dollars (1,000)	Investment Growth Rate Per Cent	Utilized Amount HK dollars (1,000)	Investment Growth Rate Per Cent
1979	109	160,920	-	73,950	-
1980	142	1,722,890	970.7	209,170	182.9
1981	318	6,748,400	291.7	768,170	267.2
1982	357	1,383,760	-79.5	526,740	-31.4
1983	739	2,266,730	63.8	932,350	77.0
1984	550	4,378,770	93.2	1,626,920	74.5
Total	-	16,661,470	-	3,537,300	-

Sources: Based on *Shenzhen Special Zone Daily*, 11 January 1985; *Shenzhen Special Economic Zone Yearbook 1985*:596, 599.

Investment forms. To date, six investment forms have arisen in the Zones. They are: (a) joint ventures between Chinese and overseas entities, which involve equity investment in the forms of equipment, cash, rights to the use of a site, factory buildings and industrial rights, and the distribution of profits in proportion to equity share - both parties sharing risks, profits and losses; (b) co-operative production arrangements, in which the Chinese partner provides land, natural resources, labour, services, buildings, and equipment or facilities, and the foreign partner provides either capital or technology,

key equipment, and materials. Products, revenue and profits are distributed according to the terms of the contract;⁹ (c) sole proprietorships; (d) compensation trade, in which the Chinese partner only provides factory buildings and labour, while the foreign investor supplies production equipment, technology and possibly technical and supervisory personnel;¹⁰ (e) intermediate processing, in which the Chinese partner receives a fee for the processing and assembly of parts and components supplied by foreign contractors; and (f) intermediate cultivation of seedlings and aquatic stocks. Joint ventures, co-operative production arrangements and sole proprietorships are regarded as more desirable forms of foreign investments and are the main targets of the Zone (Hu, 1984a; Chan, 1985a; Lo, 1986).

Table 4.20 shows that between 1979 and 1984, intermediate processing attracted the largest number of projects (1,342), but co-operative production arrangements amassed the highest amount of pledged investment (HK\$11,637,480,000), accounting for 70 per cent of the total. Similarly, it occupied the highest proportion of investment expended - 45 per cent. Also, the other two targetted forms of investment - joint ventures and sole proprietorships - took up the second- (23 per cent) and third-largest shares (21 per cent) of utilized investment respectively. After noting foreign investment has been introduced through the desired channels, we can proceed to examine the distribution of overseas capital in various economic sectors.

Distribution. The involvement of foreign investment in the main productive activity, manufacturing, needs to be probed. As illustrated by the *Statement of Fully Foreign-Owned Enterprises in Four Special Economic Zones in China, 1979-1983* (1984 *Almanac of China's Foreign Economic Relations and Trade*:1146-51) (Appendix III), twenty out of forty-eight sole proprietorship projects in Shenzhen were manufacturing - 42 per cent of the total. However, only 21 per cent of the total agreed investment of US\$365,500,000 was committed to industrial projects.¹¹

Additional information in Table 4.17, however, shows that the manufacturing sector, when all forms of investment are considered, had attracted the highest shares of both pledged and expended investments (38 and 44 per cent respectively) between 1979 and 1984. The relatively high utilization rate exhibited by the property development

9. This investment form differs from joint ventures in that contributions of the parties may not be expressed in monetary terms and, therefore, profits will not be distributed according to the equity share, but according to the terms of contract. Further, at the expiry of the contract, all equipment rights are transferred to the Chinese partner.

10. The foreign inputs, invested in the form of loans, are paid back in instalments by means of the goods produced. Upon the completion of payment, all equipment becomes the property of the Chinese partner.

11. The agreed amount of investment of five enterprises, of which one is industrial, is not given.

Table 4-20: Forms of Foreign Investment in
Shenzhen Special Economic Zone, 1979-1984

Forms	Project Number	Per cent	Pledged Investment Amount HK dollars (1,000)	Per cent	Utilized Investment Amount HK dollars (1,000)	Per cent
Joint venture	308	13.9	2,443,130	14.6	961,090	23.4
Co-operative production arrangement	385	17.4	11,637,480	69.7	1,830,320	44.5
Sole proprietorship	51	2.3	2,106,760	12.6	875,610	21.3
Compensation trade	6	0.3	11,390	0.1	9,810	0.2
Intermediate processing	1342	60.6	330,810	2.0	417,180	10.1
Intermediate cultivation	122	5.5	172,960	1.0	17,650	0.4
Total	2214	100.0	16,702,530	100.0	4,111,660	100.0

Sources: Hu (1984a:145); *Shenzhen Special Economic Zone Yearbook 1985*:596, 599.

sector (53 per cent) reflects the Zone's preoccupation with construction work in the initial years. Indeed, total investment expended by the property development sector surpassed that of the industrial sector until 1981, at which time the former had received a total amount of HK\$430,540,000, and the latter, HK\$418,040,000. At the end of 1982, however, the former obtained HK\$12,020,000 less than the latter. Hence, we need to ascertain the contribution of foreign investment in the industrial sector.

Industrial outputs. The industrial outputs of foreign-related firms had increased from Rmb 61,550,000 in 1982 to Rmb 823,800 in 1984 - a more than threefold increase each year (Table 4.21). Its share in the total industrial output, though escalating, was minor in 1982 and 1983. Nevertheless, it expanded to account for more than half of the total output (56 per cent) in 1984. Further, 72 per cent of the products which accounted for 99 per cent of the Zones' export, were sold overseas (Liu and Liang (eds.), 1985:144). The contribution of foreign-related firms to employment was, however, less successful.

Employment. Between 1983 and 1984, the numbers of jobs provided by foreign-related firms increased from 10,000 to 19,000, but this only accounted for 9 and

Table 4-21: Industrial Outputs of Foreign-Related Firms in Shenzhen Special Economic Zone, 1982-1984

Enterprise Type	Output			Zonal Industrial Output		
	1982 Rmb (1,000)	1983 Rmb (1,000)	1984 Rmb (1,000)	1982 Per cent	1983 Per cent	1984 Per cent
Joint venture and co-operative production arrangement	50,220	143,720	481,450	16.8	24.9	32.6
Sole proprietorship	11,330	75,960	342,350	3.8	13.2	23.2
Total	61,550	219,680	823,800	20.6	38.1	55.8

Note: Output value is adjusted to the 1980 constant price.

Source: *Shenzhen Special Economic Zone Yearbook 1985:587-8*; Liu (1985:78).

12 per cent of total employment respectively (*Shenzhen Special Economic Zone Yearbook 1985:606*). Thus, the involvement of foreign capital in this regard had been relatively minor.

In assessing the Zone's economic performance, note must be taken of the target established for foreign capital laid down by the *Shenzhen Outline Social and Economic Plan*. It aimed to derive 58 per cent, that is, HK\$56.7 billion, of the Zone's capital from foreign sources by the year 2000. Between 1979 and 1984, the Zone only managed to derive 20 per cent of development capital from overseas. As well, the amount of foreign investment accrued by the end of 1984 (Rmb 1,472,051,000) only accounted for 7 per cent of the total projected amount. Likewise, foreign-related firms only constituted a minor source of employment. As noted, the Zone's achievements had been to cover over one-quarter of its infrastructure costs from overseas and to obtain the investment in the desired forms of joint ventures, co-operative production arrangements and sole proprietorships. Also, since 1982, investment has been concentrated in manufacturing - the targetted economic activity of the Zone. The industrial outputs and products of foreign-related firms accounted for major portions of the Zone's outputs and exports in 1984. Hence, while the amount of foreign investment received fell short of the targets, it had been used in the desired direction. Thus, having assessed the broader performance of the Zone, we will now examine the more specific achievements.

Fulfilment of Planning Targets

Specific targets have been set for most economic sectors in the *Shenzhen Outline Social and Economic Plan*. These targets serve as convenient criteria for measuring the performance of Shenzhen's economy. More detail has been provided on the planning and progress of the industrial structure because of the projected importance of manufacturing to Shenzhen. Correspondingly, this assessment will focus on industry, though brief appraisal of the non-industrial sectors, total local earnings and the balance of external payments will also be made.

Industry. As indicated in Table 4.22, the industrial sector had averaged an annual growth rate of 100 per cent between 1979 and 1984 - 12 per cent above the planned target. By 1984, the number of workers in the industrial sector had reached 50,000, fulfilling the planned target for the following year. Likewise, 374 industrial enterprises had been set up within the Zone, thus surpassing the target for 1985 by 174. Labour productivity has also been increasing rapidly from Rmb 7,215 per worker a year to Rmb 28,000 in 1984¹² - an almost threefold increase between 1979 and 1984 (*Shenzhen Special Economic Zone Yearbook 1985:389*). The plan has highlighted that products from these industries would have to be competitive in world markets. The Vice Mayor of the Shenzhen Municipality announced that over one-third of the manufactured products in 1984 had generated foreign capital for the Municipality - 14 per cent, however, originated from the internal market. In 1984, 20 per cent of the manufactured products were sold overseas but 47 per cent were consumed within the Zone, almost 5 per cent were substituted for imports and 28 per cent were transported to the domestic market outside the Zone (*Shenzhen Special Zone Daily*, 12 May 1985). Thus, a total of 80 per cent of Shenzhen's industrial products were consumed within China - a fact which demonstrates that the planned external orientation of the Zone's manufacturing industries had not been achieved. It needs to be re-emphasized, however, that nearly all exports were products of foreign-related firms which exported more than two-thirds of their goods.

As a prime aim of the industrial policy was to absorb foreign technology, the technological levels of manufacturing production in the Zone have to be investigated. Following the classification of the technological level of industrial production and that of imported equipment (see Table 4.9 and Table 4.10), Zhou Xiwu, the Vice Mayor of Shenzhen Municipality, concluded that industrial production in the Zone has gradually turned from being labour-intensive to being capital intensive with high technology content (*Shenzhen Special Zone Daily*, 8 May 1985). Such a statement, however, may

12. The source of information has not specified whether the 1984 value has been deflated.

be premature. As pointed out by students of export processing zones such as Fröbel, Heinrichs, Kreye (1977), and Samuelsson (1982), the large-scale of importation of modern equipment does not necessarily imply a shift to advanced industrial production. Very often, the operation of the equipment or machines in the zones does not involve any technology. This seems to be the case for Shenzhen. As illustrated by Table 4.10, only 3 per cent of manufacturing production used advanced technology in 1983, and only 5 per cent in 1984. In other words, industrial production by 1984 was predominantly labour-intensive.

Table 4-22: Industrial Performance of Shenzhen, 1979-1984

Items	Planned for 1985	Achieved by 1984	Performance
Annual growth rate	88%	100%	Fulfilled
Employment	50,000	50,000	Fulfilled
Number of enterprises	200	374	Fulfilled
Labour productivity per worker per year	-	Rmb 28,000	-
Destination	Export	20% exported	Unfulfilled
Technological level	High	Low	Unfulfilled

A summary of key economic indicators for Shenzhen between 1979 and 1984 shows that its industrial performance has been mixed (Table 4.22). Planned targets for the growth rates of manufacturing, employment, number of enterprises and possible labour productivity have been met. In contrast, the destination of products and technological levels have not been fulfilled. Although rapid industrial development has occurred in Shenzhen it has not been in the direction desired and designed by planners. In contrast to the industrial sector, the performance of the non-industrial sectors - agriculture, commerce and tourism - can only be briefly assessed as few statistics are available (real estate is omitted as figures are absent or unreliable).

Non-industrial sectors. The agricultural sector achieved an average growth rate of 16 per cent between 1980 and 1984; this was more than double the planned target of 7 per cent (Table 4.23). This was outstripped by the average growth rates for commerce and construction which were 72 per cent and 57 per cent respectively. Since

planned targets for commerce and construction are not published, it is impossible to gauge their performance. Relatively, commerce has grown substantially both in terms of the retailing network and employment. Commercial outlets had increased from 102 to 5,050 between 1979 and 1984 (including 1,191 restaurants, hostels and hotels). The commercial workforce has increased almost fivefold between 1978 and 1984 - constituting a major source of employment (Zhang, 1984; *Shenzhen Special Economic Zone Yearbook 1985:422*).

Table 4-23: Annual Growth Rates of Major Economic Sectors in Shenzhen, 1980-1984

Year	Industry Per cent	Agriculture Per cent	Retailing Per cent
1980	114.0	7.0	62.0
1981	88.0	6.0	70.0
1982	49.0	25.0	59.0
1983	99.0	10.0	126.0
1984	150.0	31.0	44.0
Average	100.0	15.8	72.2

Source: See Table 4.15.

In 1983, the tourist sector received 500,000 tourists, of which 140,000 came from overseas - an 18 per cent increase over the previous year. As there were 140,000 tourists from overseas in 1983, the planned target was exceeded by 19,000,¹³ resulting in a net profit of Rmb 4,570,000¹⁴ (Wang, 1984; *Shenzhen Special Zone Daily*, 20 November 1984). The target was exceeded again in 1984 when 1,500,000 tourists were recorded, producing a net profit of Rmb 30,000,000. It is impossible, however, to calculate the net profit per individual overseas tourist since profits have not been differentiated for local and foreign visitors. Further, the sources of tourists in 1984 have not been classified. If total net profit is divided by the total number of tourists, the net profit per individual was around HK\$30 in 1983, and around HK\$65 in 1984. Although these figures were lower than the anticipated profit rates of HK\$60.5 for 1983 and HK\$66.6 for 1984, the

13. Calculated from the expected 10 per cent annual increment from the base figure of 100,000 in 1981.

14. Calculated from the net profit of HK\$50 per individual with an annual increment of 10 per cent from the base year of 1981.

actual profit generated from overseas tourists would be higher than this average rate. The reason is that overseas tourists spend more than local tourists in service charges (including rent and food). Hence, it is likely that the actual profit rates generated from overseas tourists in 1983 matched the planned target while the 1984 rate would probably have exceeded it. Thus, tourism and other non-industrial sectors have developed substantially. In particular, the agricultural sector has exceeded its planned target, the commercial sector has become an important generator of employment, and the tourist sector has attracted more people than expected. Conversely, the Zone had been unable to generate any net earnings for the country in general and the Zone in particular.

Earnings. Due to a lack of data, a comprehensive assessment of the costs and benefits incurred by the Zone is impossible. Major items of expenditure and income, however, can be summarized. The predominant expenditure stemmed from the costs of infrastructural construction, which amounted to Rmb 3,600,420,000 for the whole Municipality by 1984 (*Shenzhen Special Economic Zone Yearbook 1985:313*). Although this amount is a municipal figure, land development has been concentrated in the Zone. While foreign capital funded 26 per cent of the construction costs, internal sources bore the remaining costs of Rmb 2,664,310,800 (including investment from the state, provincial and state-owned enterprises, bank loans, and the accumulated capital of Shenzhen). Other main expenditures were administrative costs, provision of public utilities and outlays for urban maintenance. These amounted to Rmb 77,390,000 by 1984¹⁵ (*Shenzhen Special Economic Zone Yearbook 1985:592, 604*). Hence, the total expenditure on Shenzhen had grown to Rmb 2,741,700,800 by that year.

The main sources of income to the whole economy included industrial and commercial tariffs, and the profits generated by zonal and non-zonal enterprise operations. Between 1982 and 1984, a gross income of Rmb 1,201,690,000 was recorded by the Shenzhen Government (*Shenzhen Special Economic Zone Yearbook 1985:604*). It has been estimated that 'neilian' investors gained a profit of Rmb 350,000,000 by 1984 (*Shenzhen Special Economic Zone Yearbook 1985:100*). Assuming that the profitable proportion of 'neilian' enterprises was the same as the 80 per cent of foreign-related enterprises, the gross income of the former would have accrued to Rmb 878,000,000¹⁶ by 1984. Thus, the total income of the Zone would have amounted to Rmb 2,079,690,000 between 1979 and 1984. Therefore, compared with overall expenditure, an overall deficit of Rmb 662,010,800 resulted, implying that the Zone's operation, even if profits of

15. This was calculated by subtracting the total government expenditure of Shenzhen by its spending on infrastructure.

16. This is obtained by applying the profit rate of 80 per cent to the total 'neilian' investment received by the Zones, plus the amount of profit (Rmb 350,000,000) obtained by the 'neilian' enterprise.

domestic investors are accounted for, has not been profitable. Similarly, negative payment has resulted in trade.

Balance of external payments. Trading statistics show that both in the years of 1983 and 1984, Shenzhen suffered from huge deficits. The current account deficit was US\$661,820,000 in 1983. In 1984, it was US\$541,680,000 - a reduction of 18 per cent (*Shenzhen Special Economic Zone Yearbook 1985:439-41*). A more penetrating understanding of Shenzhen's trade, however, requires a further breakdown of the statistics. On investigation, it was discerned that 72 per cent of industrial output by foreign-related firms was exported in 1984 (Liu and Liang (eds.), 1985). Further, by considering the imports and exports of foreign-related firms alone, it was found that total exports exceeded imports by US\$20,750,000 in 1984 (*Shenzhen Special Economic Zone Yearbook 1985:439-41*). Apart from the limited share apportioned to domestic partners, the balance was mostly repatriated because tax holidays of various periods had been granted and export taxes were waived. In contrast, the net imports and exports of domestic enterprises produced a huge deficit of US\$548,000,000 - a reflection of general trading differences in 1984. Hence, the Shenzhen Special Economic Zone had been used by the domestic enterprises as a gateway for importing foreign raw materials and goods that were subsequently manufactured for the internal market. Thus, although the original intention was to create Shenzhen as an export-base, what has occurred was the reverse of this.

RESUME

By exploring the economic geography of the Shenzhen Special Economic Zone, this Chapter has assessed the extent to which government directives have been realized; it has also considered whether Shenzhen's shift from an internally-inclined economy to an external one has been immediate or gradual. The Chapter, therefore, has shown that the economic aims of Shenzhen have been to develop the Zone into a major industrialized city by the year 2000, based on higher technology and capital-intensive activities. The external orientation of Shenzhen's economy is patent. Industrial products will become competitive in the world market. Foreign investment, in the form of joint ventures, co-operative production arrangements and sole proprietorships, will be the major source of capital for development. The subsequent discussion of Shenzhen's economic structure and performance was, therefore, directed to assess the extent to which industrialization goals and external orientation have been achieved by fulfilling various planning targets and spatial designs.

The Chapter revealed that Shenzhen's industrial development has concentrated on light industries which accounted for almost 80 per cent of industrial production in 1983.

In particular, electronics has become the major industry, accounting for two-fifths of industrial production between 1981 and 1984. In 1984, electronics accounted for two-thirds of the Zone's manufacturing employment. Only 5 per cent of industry was production of advanced technology in 1984; other areas were either labour-intensive or assembly work that used advanced equipment. The locations of industries concentrated in three discrete centres: Shangbu, Shahe and Shekou. Whereas Shangbu was predominantly an electronics industrial estate - the largest centre both in terms of industrial output and number of enterprises - it was internally-oriented. Shahe was characterized by light and electronics industries but Shekou has developed a more balanced industrial structure. In addition, Shekou as an autonomous zone was able to develop manufacturing as its main economic activity, and export a major proportion of its industrial product to overseas markets. Furthermore, enterprises within the Zone were mainly foreign-related firms. Thus, Shekou has been regarded as a model of success.

As a whole, the industrial performance of Shenzhen has been less successful. Although the planned targets for industrial growth rates, employment and number of enterprises have been achieved, those regarding the degree of capital intensity, are far from being fulfilled. The Zone's goal of developing industry as the main economic sector has been gradually met, however. By 1984, manufacturing output matched the value of retailing and surpassed construction, and within the total industrial and agricultural output, it achieved a predominant proportion of 90 per cent. Further, by the end of 1984, the industrial sector has attracted nearly half the foreign investment used in the Zone. Thus, Shenzhen was able to generate a high rate of industrial growth, but not in the direction desired and designed by its planners. Capital-intensive and technologically advanced manufacturing fell short of planned targets.

Admittedly, Shenzhen was still at the early stage of development and has yet to develop an externally-oriented economy. After more than four years of the Zone's operation, it was only able to export 20 per cent of its manufacturing products in 1984 to earn foreign exchange. Likewise, the import of foreign investment fell below the targets. By 1984, the Zone was only able to derive one-fifth of its development capital from foreign investment, which was 38 per cent lower than expected. Further, it had managed to derive only 7 per cent of the total amount of foreign capital expected by 2000. In terms of employment, the contribution of foreign-related enterprises had been secondary. Nevertheless, as noted, a major proportion of foreign capital has been invested in the industrial sector. The outputs and exports of foreign-related firms also dominated the manufacturing sector. Thus, foreign investment has been channelled to the Zone's targetted production activity. The goal of luring foreign investment as the

major source of development may have been over-ambitious for these initial years of the Zone's development since the construction costs of export processing zones are usually borne by the host countries, rather than depending upon foreign investment.

By 1985, China's investment in the Zone had not been profitable as earnings still fell short of total expenditure. The emergence of huge trade deficits aggravated the situation. The large influx of overseas goods, the high speed of industrialization and the local development of light industrial goods also had a profound effect on Shenzhen's society. Thus, the assessment of the Zone's performance in economic terms must be considered incomplete without a survey of the changes brought to its social geography. Consequently, the changes brought into the life of Shenzhen's residents have to be considered, especially as the ultimate goal of China's modernization program - and the Shenzhen experiment - is to raise the living standard of the masses.

CHAPTER 5

SHENZHEN: THE SOCIAL DIMENSION

The essential task of socialism is to develop the forces of production, create ever more social wealth and meet the people's growing material and cultural needs (*Decision of the Central Committee of the Communist Party of China on Reform of the Economic Structure, Renmin Ribao, 21 October 1984*).

Marked social changes have been triggered by the opening of Shenzhen to large-scale industrialization and external influences. They have ranged from the restructuring of social relations and societal values, through the transformation of social landscapes and living environments to the transfers of livelihood, and shifts in living standards and style. Rather than examine all of these topics, attention is focused on changes in the 'well-being' of the Zone's population, given that the ultimate goal of China's modernization program is to satisfy the needs of the ordinary people.¹ Any assessment of the welfare of Shenzhen's residents necessarily involves an examination of their economic prosperity, and their accessibility to social goods. Further, variations within the population need to be canvassed.

Since the distribution of economic power and the supply of services have to be assessed in relation to demographic and socio-economic characteristics, an assessment is initially made of existing population structure. We are then in a position to raise a series of critical questions: what are the changes in wage levels; what are the distributive patterns; what have been the costs of basic living? After these questions have been resolved, we can tackle the final set: what and where are the social services provided; how adequate are they; and does everyone have similar access to them? Such an investigation provides evidence that while living standards have been improved, socio-economic polarization has taken place because of the more stratified income structure and the differential access to social services.

1. For analytical purposes, 'well-being' or 'welfare' refers to the residents' income level, purchasing power and their accessibility to social goods such as housing, medical facilities, education, transport, recreation, and fuel and water supplies.

POPULATION STRUCTURE

In 1978, Shenzhen possessed a rural and predominantly female and unskilled population of 68,166 (Ng, 1983a; Zheng *et al.*, 1981). As a result of the special economic zone policy, however, the population had increased to 338,000 by 1984, of which 147,000 were temporary residents (*Shenzhen Special Economic Zone Yearbook 1985:581-2*). Simultaneously, qualitative changes occurred. The expanded population was urbanized and predominantly male with a higher proportion of the younger and economically active age groups. As well, education levels were higher and a wider range of skills was available. These marked changes need to be investigated. In addition, the internal migration policy has to be detailed because in-migration has been a major source of Shenzhen's population growth and preferential access to social services has been granted to attract particular groups of prospective in-migrants (i.e. professionals and technicians). Thus, attention is directed to identifying Shenzhen's population growth and its distribution, its demographic and social patterns, and the features of its migration policy.

Growth and Distribution

As shown in Table 5.1, the number of permanent residents in Shenzhen's Special Economic Zone had expanded almost threefold between 1978 and 1984 - from 68,000 to 191,000 - achieving an annual growth rate of 19 per cent. The expansion was even more phenomenal when the temporary population is taken into account - a fivefold increase at an average annual growth rate of 31 per cent between 1978 and 1984. The population 'take off' commenced in 1980 - the year the Special Economic Zone was officially inaugurated. In that year, 13,000 permanent residents² arrived, in addition to thousands of temporary residents (exact figure unpublished).³ Rapid growth also occurred in 1982 and 1983, with annual increments of more than 30,000 permanent residents. The number of temporary residents expanded at a similar pace, increasing by 20,000 in 1983 and 27,000 in 1984. Indeed, the high proportion of temporary residents - constituting over two-fifths of Shenzhen's population in 1984 - was a prominent demographic feature of the Zone.

The population density in Shenzhen also rose correspondingly. It doubled between 1978 and 1984 - rising from 208 persons per sq km to 584 persons per sq km (Table 5.2). If temporary residents are included, the density was 1,032 persons per sq km in 1984. Such a density was one and a half times higher than that of the provincial city of

2. Permanent residents are those whose places of abode are registered in Shenzhen.

3. Temporary residents are those whose registered places of abode have not been transferred to Shenzhen. They are usually employed in the Zone on a contractual basis.

Table 5-1: Population Growth in Shenzhen Special Economic Zone, 1978-1984
(Numbers in 1,000)

Year	Total Population		Permanent Residents			Temporary Residents		
	Number (1,000)	Growth (1,000)	Number (1,000)	Per Cent	Growth (1,000)	Number (1,000)	Per Cent	Growth (1,000)
1978	68	-	68	100.0	-	0	0	-
1979	-	-	71	-	3	-	-	-
1980	134	-	84	62.7	13	50	37.3	-
1981	-	-	98	-	14	-	-	-
1982	229	-	129	56.3	31	100	43.7	-
1983	285	56	165	57.9	36	120	42.1	20
1984	338	53	191	56.5	26	147	43.5	27

Source: Based on Zheng *et al.* (1981:23); Zhang *et al.* (1984:28); *Shenzhen Special Economic Zone Yearbook 1985:581-2*.

Guangzhou (438 persons per sq km) (*Zhongguo Shouce 1984:1-42*). As the population was not spread evenly across the Zone, the key features of its geographical distribution need to be described.

Table 5-2: Population Density of Shenzhen Special Economic Zone, 1978-1984

Year	Permanent Population Persons/sq km	Total Population Persons/sq km
1978	207.6	207.6
1979	216.5	-
1980	256.8	409.5
1981	300.2	-
1982	392.7	698.0
1983	503.8	870.0
1984	584.4	1032.1

Source: Based on Zheng *et al.* (1981:23); Zhang *et al.* (1984:28); *Shenzhen Special Economic Zone Yearbook 1985:581*.

Table 5-3: Population Distribution in Shenzhen Special Economic Zone, 1979 and 1984 (permanent residents)

Administrative District	Area sq km	Number		Density	
		1980 (1,000)	1984 (1,000)	1980 per sq km	1984 per sq km
Shatoujiao	65.0	5	7	76.9	107.7
Luohu	74.2	46	92	619.9	1239.9
Shangbu	68.8	11	60	159.9	872.0
Nantou	108.1	17*	22	157.3	203.5
Shekou	11.4	4**	13+	350.9	1140.4
Total	327.5	83***	194++	253.4#	592.4#

Notes: * Includes the population of Chiwan. ** Excludes the population of Chiwan. *** Differs from Table 5.1 due to rounding. + As this figure is the size of the workforce in Shekou Industrial Zone, it probably underrepresents the District's population size. ++ This figure differs from that provided in Table 5.1, but *Shenzhen Special Economic Zone Yearbook 1985* does not account for the difference. # These two figures differ from those contained in Table 5.2 because of rounding and unexplained differences in the original sources.

Sources: *Shenzhen Special Economic Zone Yearbook 1985*:101-11, 306; interview with Shenzhen Planning Bureau, April 1982.

As reflected in Table 5.3, the Luohu Administrative District⁴ had captured the largest proportion of the Zone's permanent population - 55 per cent in 1980 and 48 per cent in 1984. It was the most densely populated district, with 620 persons per sq km in 1980 and 1240 persons per sq km in 1984 - both were more than double the Zone's overall densities in these two years. The Shangbu Administrative District also emerged as an important residential area in 1984, holding a population of 60,000. It was not, however, as densely populated as the Shekou Administrative District which, though

4. As there is insufficient locational data, the description of population distribution is only possible at the Administrative District level. The jurisdiction of the Administrative Districts are: a) Shatoujiao District - Shatoujiao Town, Yantian Harbour District; (b) Luohu District - Luohu Town, Huacheng, Shuibe Industrial District, Liantang Industrial District, Shenzhen Reservoir District, Sungang Qingshui River Warehouse District, Hongling District; (c) Shangbu District - Shangbu Multipurpose District, Futian New Town, Chegongmiao Industrial District, Agronomic Research Park, Xiangmihu Tourist District; (d) Nantou District - Nantou Central District, Houhai Bay Research and Culture District, Mawan Harbour and Warehouse District, Nantou Industrial District, Xili Reservoir District, Shahe Industrial District; (e) Shekou District - Shekou Commune, Shekou Industrial District and Chiwan Harbour District (Source: *Shenzhen Special Economic Zone Yearbook 1985*:306).

possessing a smaller population of 13,000, gained a population density of 1140 persons per sq km in 1984.

In 1980, therefore, the Zone's population was concentrated in the eastern section of the Central Region, in which the Shenzhen Old Town was located (Fig. 5.1). The second largest population conglomeration was found in the Western Region - Nantou - which was the pre-1953 county-seat of the previous Baoan County. With the commencement of the special economic zone policy in 1980, this pattern began to change.

By the end of 1984, Figure 5.2 shows the whole Central Region - consisting of Luohu and Shangbu - had become the most populous region. Providing accommodation in high-rise living quarters, the Central Region alone housed nearly 80 per cent of the Zone's permanent population (152,000) and almost the entire temporary population (175,000).⁵ Nantou, and thus the Western Region, had lost its relative importance. Invariably, the Eastern Region remained the least populated area.

The pattern of population density in 1980, shown in Figure 5.3, reflected the pattern of population distribution - except in the Western Region, where the less populated Shekou possessed a density higher than Nantou (compare with Fig. 5.1). Indeed, at the onset of the special economic zone policy, the whole Zone - apart from Luohu and Shekou - was sparsely populated, holding less than 200 persons per sq km. Luohu in the mid-east region, which includes Shenzhen Old Town, was the only area with a density higher than that of Guangzhou, the provincial city (438 persons per sq km).

By 1984, Shangbu had acquired a much higher population density - increasing from 160 to 872 persons per sq km. Hence, the whole Central Region was the most densely populated area (Fig. 5.4). Similar to the pattern in 1980, the Western Region was more densely populated than the east, and Shekou continued to possess a relatively higher density (1140 persons per sq km), only subordinate to that of Luohu.

Shekou's second-rank, however, was lost to Shangbu when temporary residents are considered (Fig. 5.5). Temporary residents were concentrated in the Central Region where faster infrastructural and economic developments were taking place. As a result, the Central Region's 'real' population density was almost doubled as it increased from 1,056 persons per sq km to 1,867 persons per sq km. By 1984, therefore, the most

5. The Luohu Administrative District Council quoted 125,000 temporary residents in its district, and the Shangbu Administrative District Council 50,000 (*Shenzhen Special Economic Zone Yearbook 1985*:105, 110). In fact, the sum of these two figures exceeds the figure of total temporary residents cited on p.582 of *Shenzhen Special Economic Zone Yearbook 1985*.

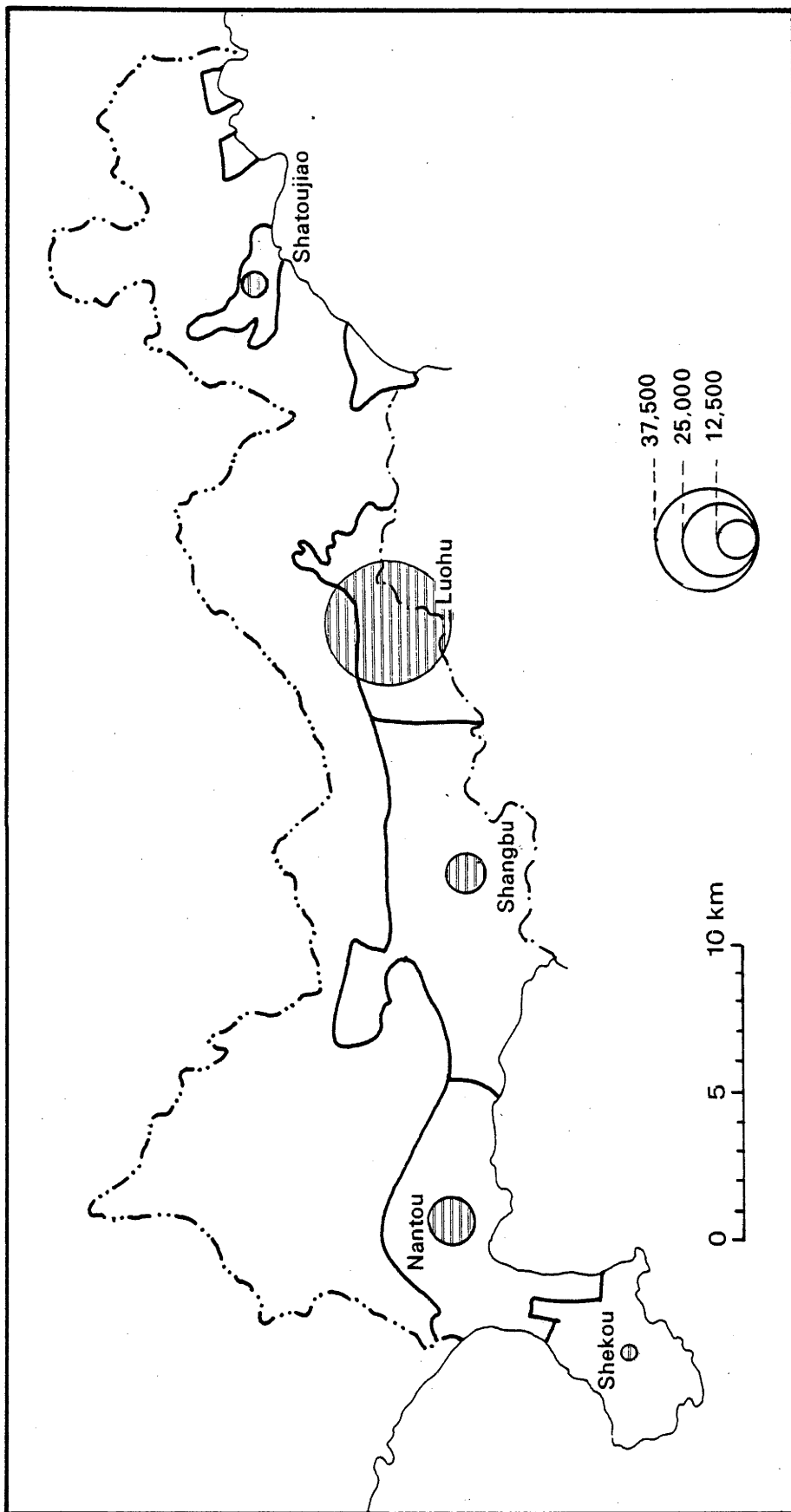


Figure 5.1: Population distribution in Shenzhen Special Economic Zone 1980. (Source: See Table 5.3.)

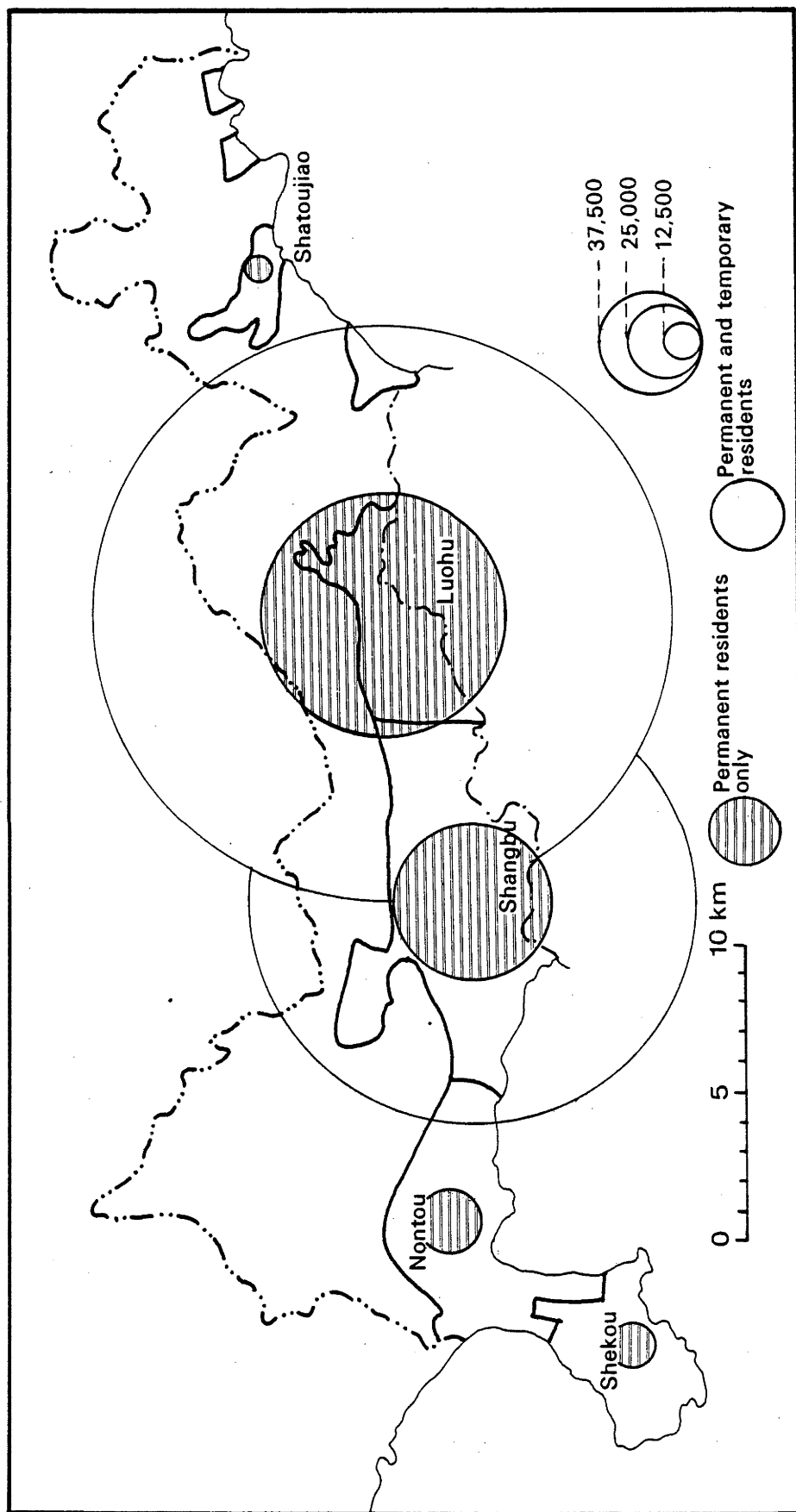


Figure 5.2: Population distribution in Shenzhen Special Economic Zone 1984. (Source: Based on Ng (1983a:140-5); Shenzhen Special Economic Zone Yearbook 1985:101-111; interview with Shenzhen Planning Bureau.)

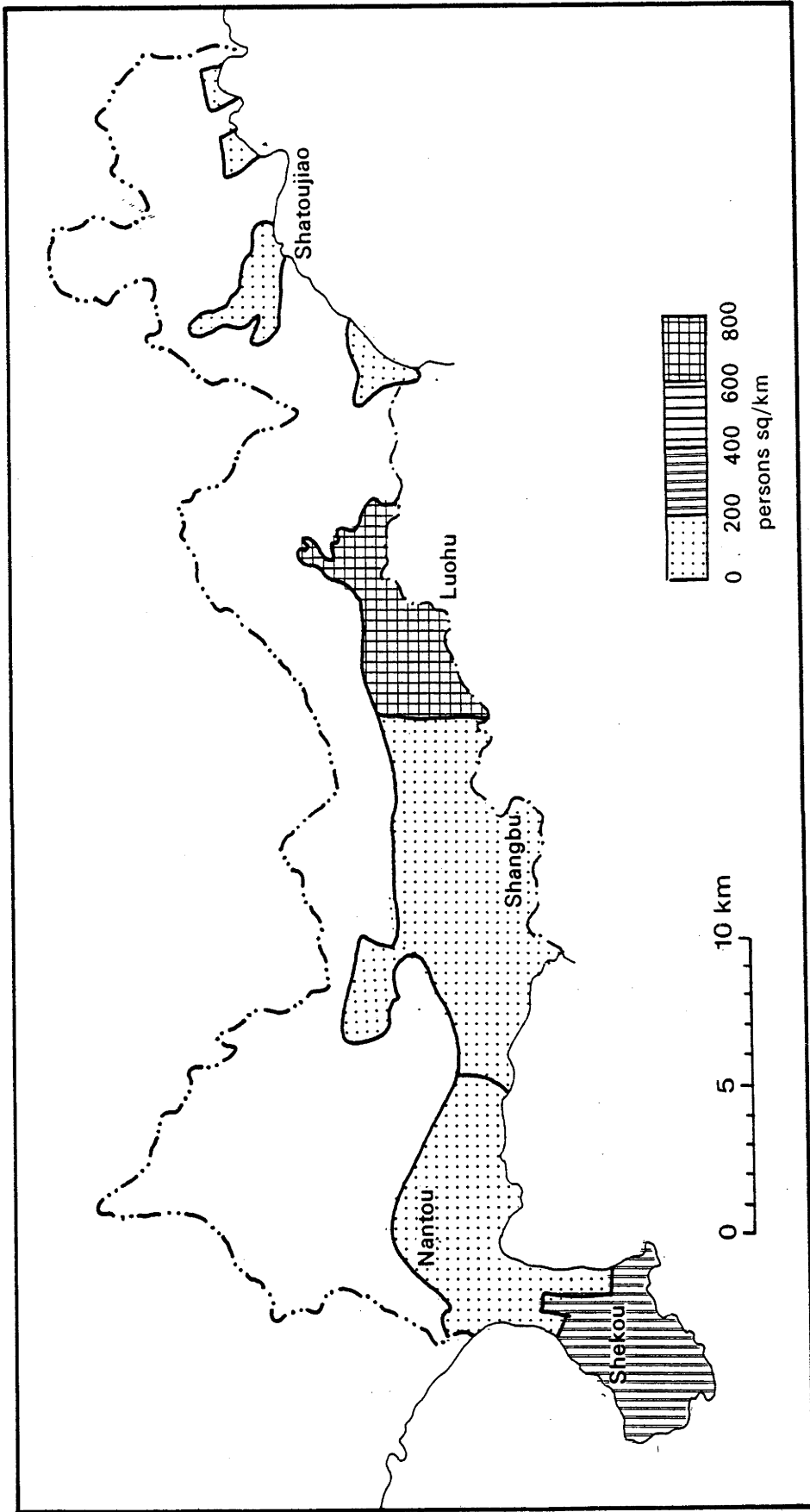


Figure 5.3: Population density in Shenzhen Special Economic Zone 1980. (Source: See Table 5.3.)

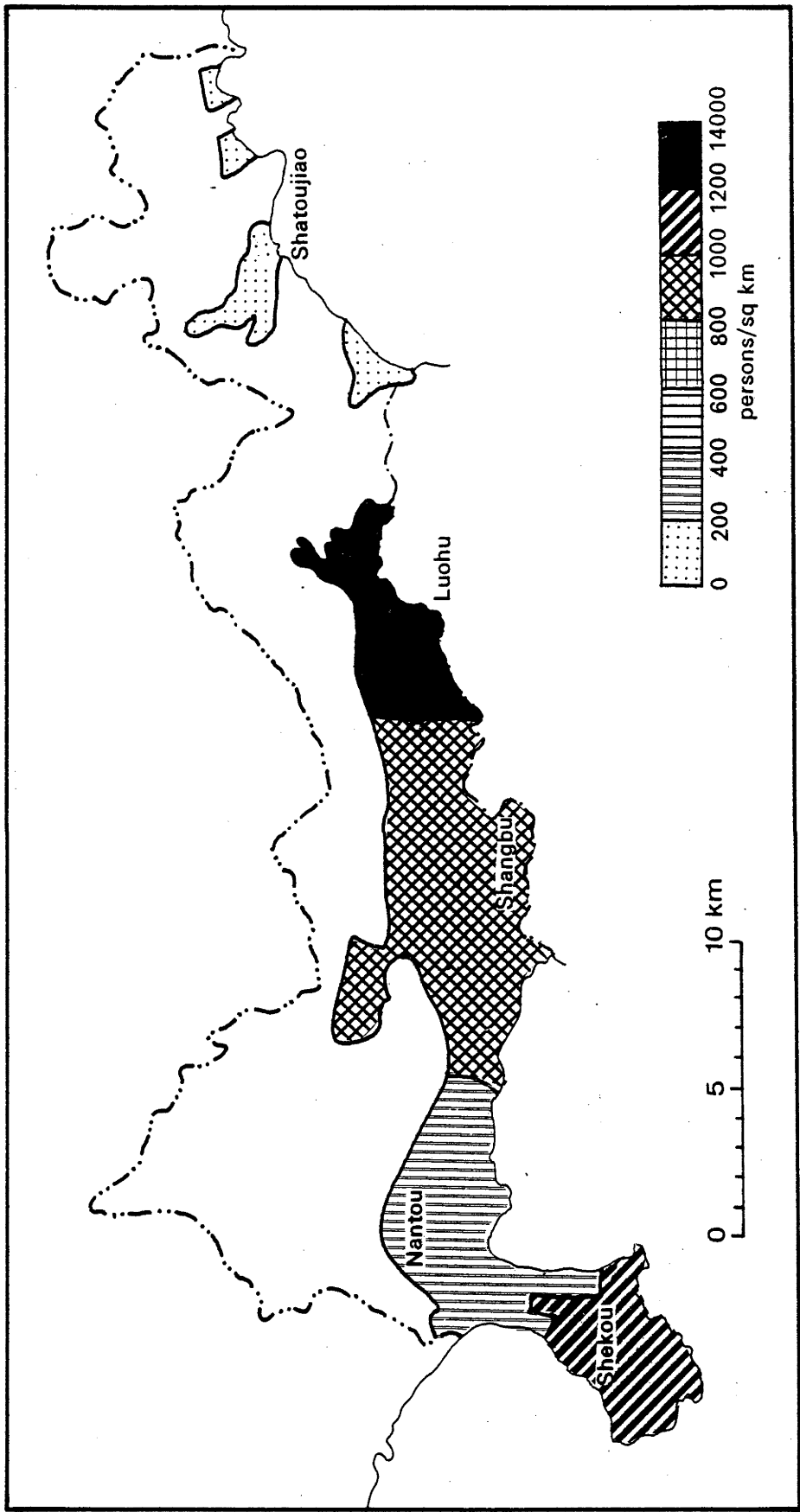


Figure 5.4: Population density in Shenzhen Special Economic Zone 1984 (permanent residents only).
(Source: See Table 5.3.)

populous Central Region held a density that was 81 per cent higher than the Zone's average. Indeed, Luohu has been the most densely populated area since the Zone was established.

This pattern of development, however, deviated from that stipulated by the *Shenzhen Special Economic Zone Master Outline Plan (Shenzhen Special Economic Zone Yearbook 1985:305-6)*. By the year 2000, Shangbu was expected to have emerged as the prime residential centre, housing a population of 365,000. As shown in Figure 5.6, Luohu was intended to be the second largest residential district and Nantou the third, holding populations of 220,000 and 135,000 respectively. By 1984, the realization of this plan was some way off. Although the population of Shangbu had expanded, its size was still below that of Luohu. Indeed, the expected large-scale population expansion of Shangbu will probably have to await the completion of the development project at Futian, which was expected to attract a population of 300,000 - 82 per cent of Shangbu's planned population. Although the contract was signed in November 1981, its implementation had still not commenced by 1985 (*Yearbook of China's Special Economic Zones 1983:161*).

Figure 5.7 shows that the planned distribution pattern of population density also differs from that exhibited in 1984 (see Fig. 5.5). By the year 2000, the Central Region is expected to have the highest population density and Shangbu, instead of Luohu, is anticipated to possess a higher density. Further, the population density of the Western Region is planned to reach a much higher level (1,249 persons per sq km in Nantou in 2000; and 4,386 persons per sq km in Shekou in 2000). Moreover, Shekou will possess a density higher than that planned for Luohu. In contrast, the Eastern Region will remain as the least populated area, with a density of 539 persons per sq km only.

By the year 2000, the Zone will hold a planned population of 805,000 (*Shenzhen Special Economic Zone Yearbook 1985:306*). This figure is based on an annual growth rate of 12 per cent - an increase of 716,000 between 1980 and 2000. As shown in Table 5.4, the average natural growth rate between 1979 and 1984, however, was only 14 per 1000. Hence, the fulfilment of the population target will have to rely on large-scale in-migration.

Indeed, in-migration was the predominant source of population growth between 1979 and 1984 (Table 5.5). Within this period, 93 per cent (114,210) of the Zone's total growth (123,400) was generated by in-migration, and only 9,190 (7 per cent) by natural growth. Prior to the formal establishment of the Zone in 1980, natural growth was an important contributor to population growth (40 per cent in 1979). Since 1980, however, it has become a minor factor. The large influx of selected migrants into the Zone has certainly altered the population characteristics. Hence, these demographic changes are investigated in more detail.

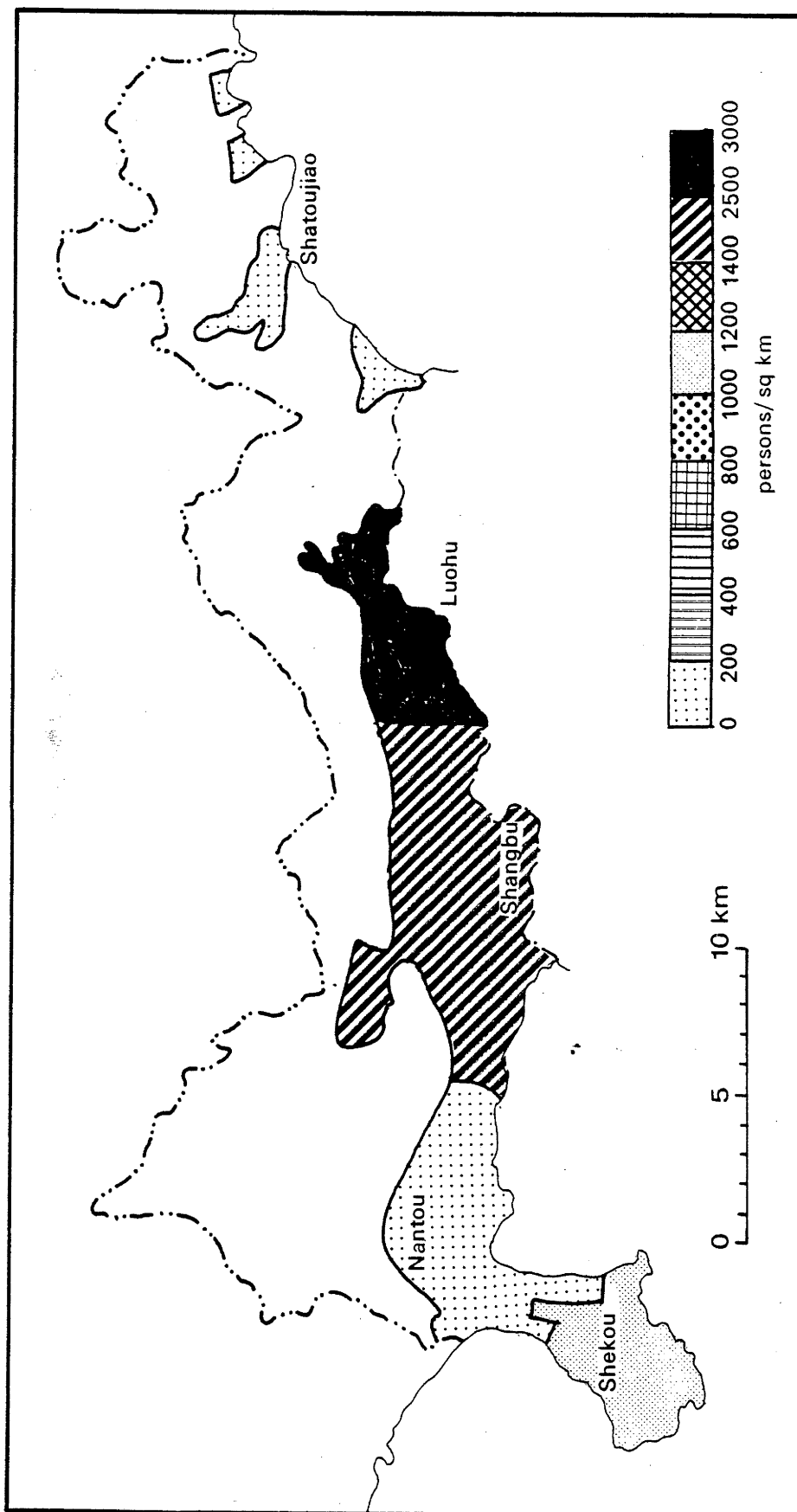


Figure 5.5: Population density of Shenzhen Special Economic Zone 1984 (including temporary residents).
 (Source: Based on Shenzhen Special Economic Zone Yearbook 1985:101-11, 306.)

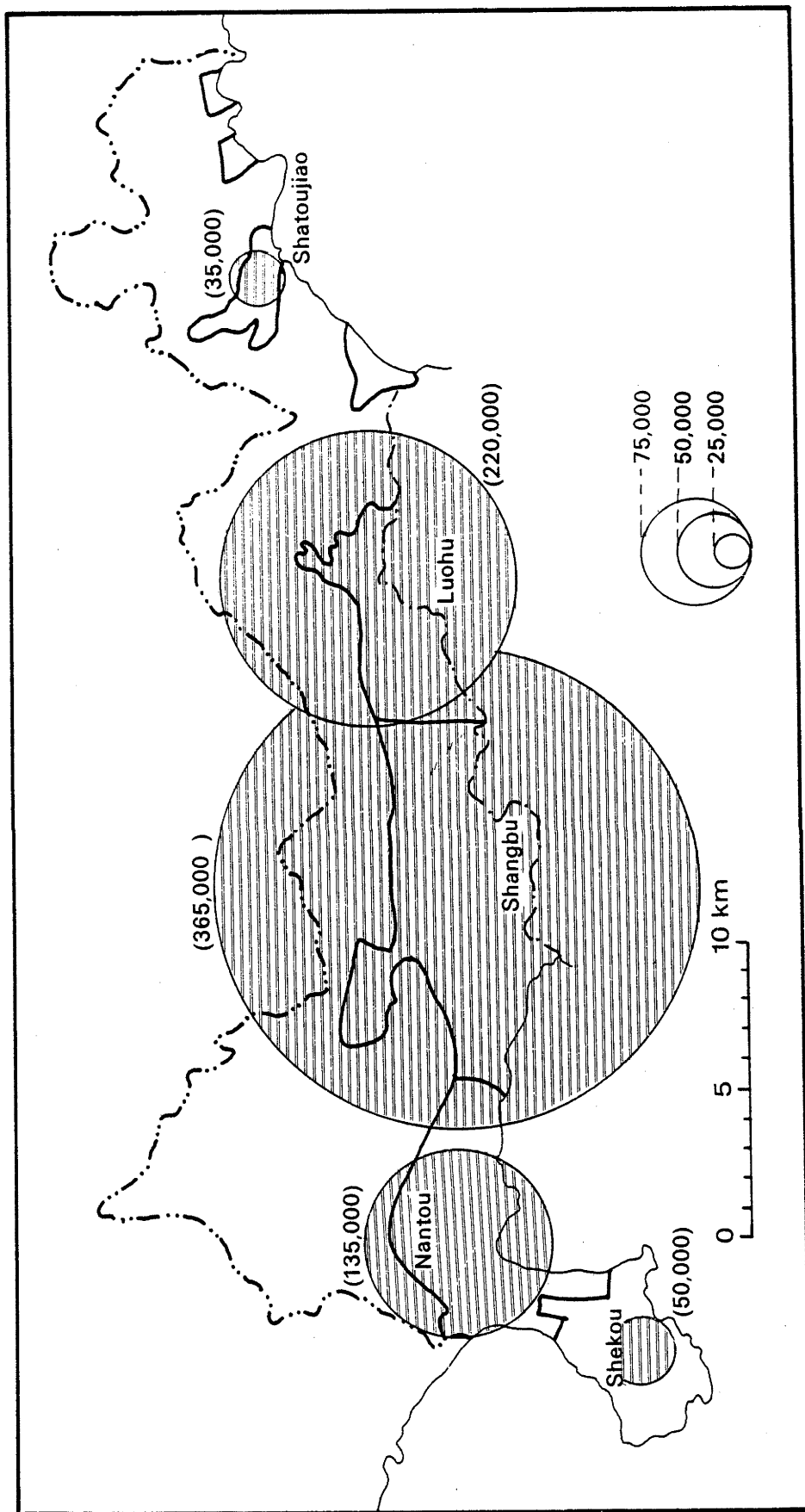


Figure 5.6: Planned population in Shenzhen Special Economic Zone 2000. (Source: Based on Shenzhen Special Economic Zone Yearbook 1985:306.)

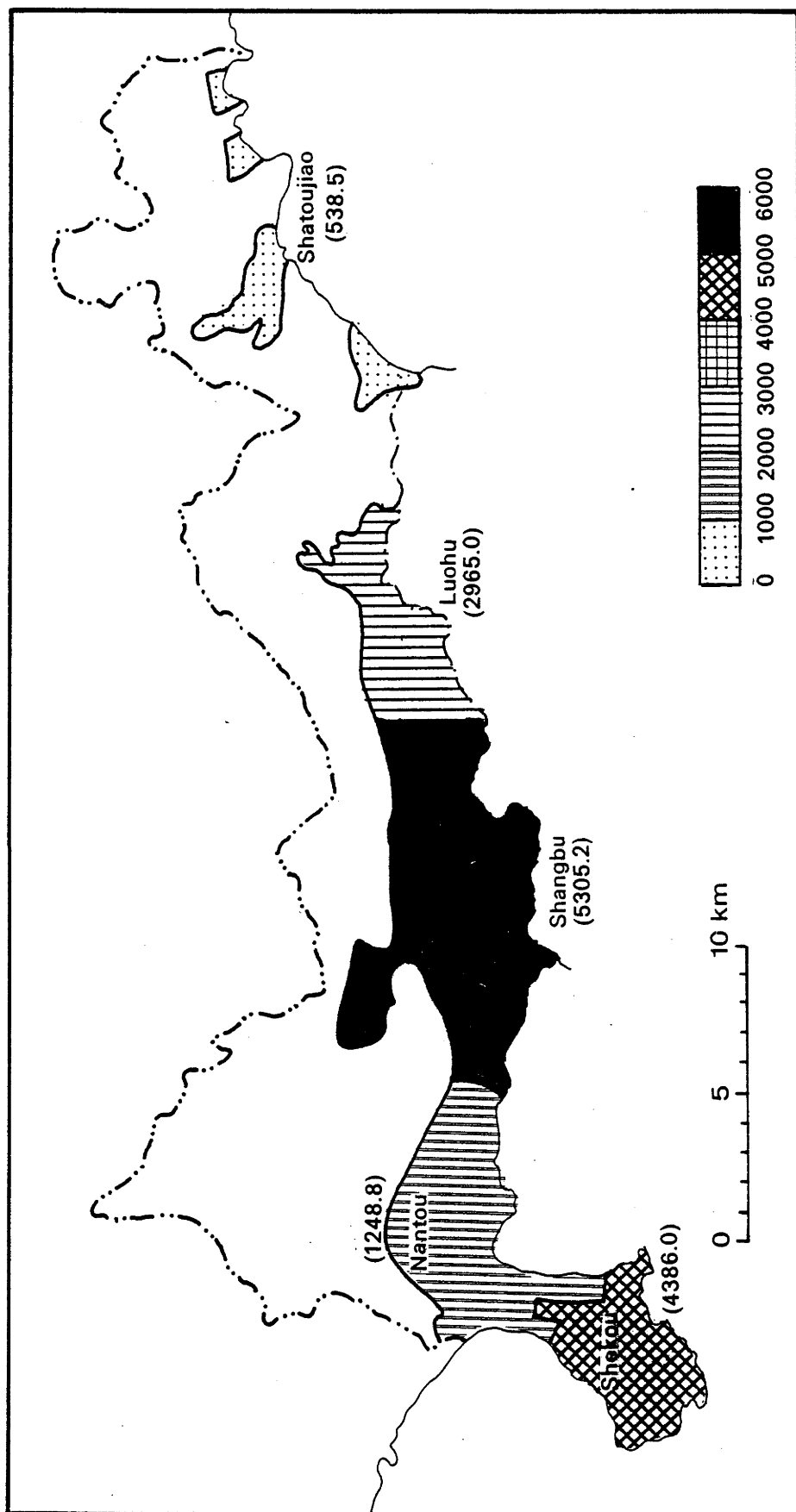


Figure 5.7: Planned population density in Shenzhen Special Economic Zone 2000. (Source: Based on Shenzhen Special Economic Zone Yearbook 1985:306.)

Table 5-4: Demographic Vital Rates of Shenzhen Special Economic Zone, 1979-1984*

Year	Births Number	Birth Rate per 1,000	Deaths Number	Death Rate per 1,000	Natural Growth Rate per 1,000
1979	1524	21.5	360	5.1	16.4
1980	1561	18.6	338	4.0	14.6
1981	2186	22.2	412	4.2	18.0
1982	2460	19.2	412	3.2	16.0
1983	1872	11.3	414	2.5	8.8
1984	1937	10.1	414	2.2	7.9
Average	1923	17.2	392	3.5	13.7

Note: * Instead of adopting the birth and death rates contained in the *Shenzhen Special Economic Zone Yearbook 1985*, which were found to be inaccurate, the author compiled these rates based on the number of births and deaths, and population size provided by the Yearbook.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985*:581.

Table 5-5: Natural Growth and In-Migration in Shenzhen Special Economic Zone, 1979-1984

Year	Population Growth Number	Natural Growth		In-Migration	
		Number	Per cent	Number	Per cent
1979	2,900	1,164	40.1	1,736	59.9
1980	13,200	1,223	9.3	11,977	90.7
1981	14,200	1,774	12.5	12,426	87.5
1982	30,300	2,048	6.8	28,252	93.2
1983	36,400	1,458	4.0	34,942	96.0
1984	26,400	1,523	5.8	24,877	94.2
Total	123,400	9,190	7.4	114,210	92.6

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985*:581.

Characteristics

The delineation of Shenzhen's demographic and associated social characteristics is important both for gaining an understanding of the nature of Shenzhen's population and fashioning a basis for examining the distribution of economic power and the accessibility to social services. In particular, the following needs to be explored: the sex structure; rural-urban composition; age structure; education attainment and skill level; and employment structure.

Sex structure. As shown in Table 5.6, the male population of Shenzhen had tripled between 1978 and 1984, whereas the female component had expanded by less than two and a half times. Consequently, the male to female ratio rose from 97 males per hundred females in 1979 to 130 in 1984. Hence, the predominately female population of Shenzhen had been transformed to a heavily male-dominant population within a time-span of five years. Since the population growth of Shenzhen is largely due to in-migration, this change shows that the process had been strongly sex-selective.

Table 5-6: Sex and Urban-rural Structure of Shenzhen Special Economic Zone, 1979-1984 (permanent residents)

Year	Sex Composition			Urban-rural Composition				
	Male Number (1,000)	Female Number (1,000)	Per/100 Female Ratio	Urban (1,000)	Per cent	Rural (1,000)	Per Cent	Per/100 Rural Ratio
1978	33	35	94.3	27	39.7	41	60.3	65.9
1979	35	36	97.2	35	49.3	36	50.7	97.2
1980	42	42	100.0	46	54.8	38	45.2	121.1
1981	49	49	100.0	59	60.2	39	39.8	151.3
1982	65	64	101.6	78	60.5	51	39.5	152.9
1983	100	70	142.9	119	72.1	46	27.9	258.7
1984	108	83	130.1	152	79.6	39	20.4	389.7

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:581*; Zheng, 1981.

Urban-rural ratio. Reflecting rapid industrialization, the urban population of the Zone had expanded fivefold between 1979 and 1984, while the rural population more or less stagnated (Table 5.6). Consequently, the proportion of urban population to total population had increased sharply from 49 per cent in 1979 to 80 per cent in 1984, and the proportion of rural population dropped correspondingly. Similarly, this change reflects the origin-selective characteristic of the in-migration process, engendering high population concentration in the urban area (namely, Luohu and Shangbu).

Table 5-7: Age Structure of Shenzhen Special Economic Zone, 1982

Age Groups	Per cent
0 - 14	30.0
15 - 49	56.0
Over 50	14.0
10 - 34	49.0
20 - 34	27.0
45 - 54	9.9

Source: Based on Zhang *et al.* (1984:28).

Age structure. A general census taken in 1982 has been the sole source of information on Shenzhen's age structure (Table 5.7). Only 30 per cent of the population were shown to be under the age of fifteen years, but possibly 7 to 11 per cent were over sixty-four (since 14 per cent were over fifty). The Zone's population, therefore, can be described as 'matured' - a characteristic common to developed countries. However, this 'matured' structure (or 'aged', as described by Wilson, (1973)) - low proportion of the age group under fifteen years and high proportion of the group under sixty-four years, as compared with other countries - did not evolve from demographic maturation (i.e. low birth and death rates) as in the case of developed countries. Rather, it was due to a deliberate policy of allowing young and economically-active people to migrate to the Zone. Consequently, 27 per cent of the population were between the age of twenty and thirty-four years, and a further 10 per cent were between the age of forty-five and fifty-four (Zhang *et al.*, 1984:28). As the age-selective migration process continued apace after 1982, the Zone's population in 1984 was likely to be dominated further by the young and economically-active group.

Education attainment and skill level. The 1982 census data show that the education level of Shenzhen had been raised significantly. In 1964, only 48 per cent of the population in the present Shenzhen Zone area had received primary education or above. In 1982, however, 78 per cent had attained the equivalent standard. Further, comparing the education achievements of Shenzhen's population with those of the Guangdong Province and the whole country, higher proportions of Shenzhen's population had finished university (2 per cent compared to Guangdong's 0.5 per cent and the country's 0.4 per cent), or higher secondary (18 per cent compared to

Guangdong's 8 per cent and the country's 6.4 per cent), or lower secondary (26 per cent compared to Guangdong's 17 per cent and the country's 17 per cent) (Table 5.8). Correspondingly, smaller proportions of Shenzhen's population had received only primary education (32 per cent compared to Guangdong's 41 per cent and the country's 34 per cent), or were illiterate or semi-illiterate (9 per cent compared to Guangdong's 16 per cent and the country's 23 per cent) (Zhang *et al.*, 1984; *Ta Kung Po*, 28 October 1982). Thus, the education level of Shenzhen's population was higher than the provincial and national standard. As remarked by Zhang and others (1984:30), the high education level was due to the influx of educated and skilled migrants - a reflection of the fact that the in-migration process was education and skill-selective.

Table 5-8: Education Attainment of the Population of Shenzhen Special Economic Zone and Guangdong Province

Education Attainment	Shenzhen SEZ Per cent	Guangdong Province Per cent
University	2.0	0.5
Higher secondary	18.0	7.9
Lower secondary	25.9	16.9
Primary	31.6	40.6
Illiterate or semi-illiterate (over 12 years old)	9.1	16.4

Source: Zhang *et al.* (1984:30).

Indeed, the number of professionals and technocrats in Shenzhen had increased phenomenally - from 130 in 1978 through 5,000 in 1983 to 12,000 in 1984 (*Shenzhen Special Zone Daily*, 20 April 1984, 13 May 1985). Thus, in 1984, 6 per cent of Shenzhen's population comprised skilled labourers or professionals (i.e. engineers, lecturers and medical doctors).

Employment structure. Similarly, the employment structure had undergone radical change. As shown in Table 5.9, employment in state enterprises in the Zone expanded more than fivefold between 1979 and 1984, increasing from 23,000 to 118,000. Further, the source of employment had diversified beyond state enterprises and institutions: collective enterprises, commenced in 1982, employed 18,000 in 1984;

foreign-related enterprises (including sole proprietorships, joint ventures, and co-operative production enterprises) employed 19,000 in 1984. The state enterprises and institutions, however, remained the largest source of employment. In 1984, they accounted for 76 per cent of total employment while collective and foreign-related enterprises each totalled 12 per cent.

**Table 5-9: Employment in Shenzhen Special Economic Zone
by Nature of Enterprises***

(Numbers in 1,000)

Nature of Enterprise	Employment (at end of year)					
	1979	1980	1981	1982	1983	1984
State ownership	23	27	39	61	87	118
Collective ownership	0	0	0	6	10	18
Foreign-related	0	0	0	0	10	19
Total	23	27	39	67	107	155

Note: * It is not stated whether temporary workers were included. Judging from the size of total employment in 1984, temporary workers (e.g. contractual employees) could have been included since the employment size exceeded the economically active population by 40,400. Nevertheless, it is impossible to verify whether all temporary workers are included.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:606*.

An analysis of the employment structure of state enterprises and institutions by sector, therefore, holds the key to changes in the general employment pattern of the Zone between 1982 and 1984 (Table 5.10). In 1982, the largest sector was commerce and services (23 per cent), followed by manufacturing (20 per cent), and agriculture, forestry, water and meteorology (13 per cent). In 1983, though the commercial and services sector had expanded, it nevertheless gave way to the construction and resource exploration sector which employed 28,000 people (32 per cent). In 1984, the commercial sector had narrowly resumed its top rank, providing 27 per cent (32,000) of total employment, outstripping the construction and resource exploration sector by 2 per cent. Between 1982 and 1984, the number of industrial workers had only increased marginally (from 12,000 to 19,000), indicating the slow growth of the state manufacturing sector. Foreign-related enterprises, however, have concentrated in the manufacturing sector,

and therefore have comprised a major source of manufacturing employment. Hence, the total industrial workforce had grown to 50,000 workers by 1984, accounting for 32 per cent of total employment (see Chapter 4).

Table 5-10: Employment in State Enterprise by Sector, 1982-1984

Sector	1982		Employment 1983		1984	
	Number (1,000)	Per cent	Number (1,000)	Per cent	Number (1,000)	Per cent
Industry	12	19.7	12	13.8	19	16.2
Construction and resource exploration	6	9.8	28	32.2	30	25.6
Agriculture, forestry, and water and meteorology	8	13.1	3	3.4	3	2.6
Transport, mail and telecommunications	6	9.8	4	4.6	7	6.0
Commerce and services	14	23.0	21	24.1	32	27.4
Urban public facilities	4	6.6	4	4.6	7	6.0
Science and research	0*	0.0	1	1.1	0**	0.0
Education, health and social welfare	3	4.9	3	3.4	6	5.1
Finance and insurance	1	1.6	1	1.1	2	1.7
State and mass organization	7	11.5	10	11.5	11	9.4
Total	61	100.0	87	99.8	117***	100.0

Notes: * The original figure before rounding is 100. ** The original figure before rounding is 200. *** The difference from that contained in Table 5.9 is due to rounding.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:606-7*.

In contrast to the state industrial sector, the construction industry had expanded rapidly, particularly between 1982 and 1983, when 22,000 jobs were created. The commercial sector had also undergone significant growth. Zheng and others (1981)

reported that the commercial and services sector only occupied 8 per cent of the employment provided by state enterprises and institutions in 1981. This sector, however, had grown quickly since 1982; it accounted for 23 per cent of state employment in 1982, 24 per cent in 1983 and 27 per cent in 1984 (Table 5.10). Thus, throughout these three years, the sector had remained as a significant source of employment - providing one-quarter of total employment in state organizations. Conversely, the proportion of workers involved in agriculture, forestry, water and meteorology had declined since 1982, accounting for less than 3 per cent of total employment in 1984. The science and research sector remained insignificant: although it increased from one hundred people in 1982 to seven hundred in 1983, it declined to two hundred in 1984. State workers, therefore, had been mainly involved with commerce, services, construction and resource exploration activities. In contrast, less than one-fifth of the workforce was involved in manufacturing. Apart from the industrial sector, the employment structure is indicative of the general employment pattern in Shenzhen. As noted, the workforce in commerce and construction ranked second and third after manufacturing (Chapter 4).

Thus, the increasingly urbanized population of Shenzhen had shifted from being predominantly female to being predominantly male. A developed demographic profile had emerged - reflecting the dominance of the working age group. Education and skill levels had been heightened, with the former raised above the provincial level. All these changes were brought about by the large inflow of migrants. They had also diversified the employment structure, and boosted the industrial, commercial, services and construction sectors. As the in-migration process had caused these drastic changes, it deserves to be examined more carefully by investigating the government's migration policy.

Migration Policy

As repeatedly stressed by Liang Xiang, the Mayor of Shenzhen Municipality, inadequate semi-skilled manpower has been both an initial and a perennial problem of Shenzhen (*Shenzhen Special Zone Daily*, 20 April 1984, 7 February 1985; *Baixing*, 1 March 1985). Accordingly, two recruiting teams were despatched to major cities in May 1983 and March 1984. They aimed at recruiting professionals, technicians and educated labourers - the prime targets of Shenzhen's in-migration policy. Simultaneously, qualified or experienced personnel of different trades, especially the service industry, were also desired. Following the national policy of containing urban population growth, in-migrants to the Zone were generally limited to existing urbanites (*Ming Pao*, October 1981; Fieldwork, 1982; Ng, 1983; *Shenzhen Special Zone Herald*, 9 May 1983; *Shenzhen*

Special Zone Daily, 23 March 1984). Nevertheless, transfers of unskilled or low-skilled cadres into the Zone have been considerable (*Shenzhen Special Zone Daily*, 6 November 1984). Further, personal connections have also caused skilled or semi-skilled cadres to be transferred from Shenzhen's neighbouring counties where trained manpower was needed (*Shenzhen Special Zone Daily*, 15 November 1984). Indeed, according to Zheng *et al.* (1981), more than 14 per cent of the transferred personnel in 1980 migrated to the Zone through improper means. Nonetheless, several recruiting methods have been devised.⁶ They were designed to provide the widest channel to lure appropriate manpower to the Zone. As revealed in discussions with Shenzhen's in-migrants, the Zone has become a desired destination. The obstacles to such movement were, according to a transferred lecturer, the reluctance of the original institutions or enterprises to release their staff and the policy of the Shenzhen authority to fight for only the high priority applicants (Fieldwork, 1982). Indeed, preferential treatment has been offered to attract skilled cadres to this yet developing Special Economic Zone.

As stressed by *Wen Wei Po* (30 July 1982), the Shenzhen Government was fully aware of the importance of the intelligentsia to the development of the Zone. Hence, in 1982, the government guaranteed adequate social services to this target group. In the same year, the authority allocated three hundred newly-finished three-bedroom units to cadres who were equivalent to or above the rank of lecturers or engineers. In August 1982, the target group for preferential treatment was formally defined. They were high-ranked or intermediate technocrats including engineers, agriculturalists, veterinarians, horticulturalists, accountants, economists, lecturers, reporters, editors and others such as writers and athletes. The terms of preferential treatment included: access to political documents at the 'chu' level by high-ranked technocrats, and 'xinke' level by the intermediate technocrats; the allocation of residential units of 80 sq m to high-ranked technocrats and units of 50-70 sq m to intermediate technocrats; the provision of a guaranteed gas supply; the ability of technocrats (aged 40 or above, with fifteen or more years working experience) to apply for the transfer of their rural-based spouse and children (under sixteen years old) to the urban area; and the granting of certificates to high-ranked technocrats for priority medical treatment and the provision

6. Seven basic recruiting methods had been devised: (a) an annual public recruitment drive in designated cities since 1982; (b) direct invitation to contractual employment involving temporary residence with the prospect of a subsequent transfer to permanent status; (c) direct transfers of suitable cadres with the approval of their original working institutions (an examination of their educational standards and professional proficiency has been required since 1984); (d) open recruitment for contractual employment; (e) promotion of workers; (f) assignment of university and secondary school graduates to work in the Zone; and (g) transfer from the army (*Shenzhen Special Economic Zone Yearbook 1985:545-6*).

of private transport for work. These incentives were re-stated in May 1983 when a recruiting team was sent to Beijing, Tianjin, Shanghai and other provinces (*Wen Wei Po*, 26 August 1982; *Shenzhen Special Zone Herald*, 9 May 1983; *Ming Pao*, 16 May 1983). In short, the Shenzhen authority attempted to attract top-level technicians and professionals by ensuring political privileges, high living standards and rural-urban transfer of family members. By the end of 1984, fifty-five high-ranked and 1,805 intermediate technocrats had been recruited (*Shenzhen Special Economic Zone Yearbook 1985:545*).

Thus, we have demonstrated that Shenzhen's population has grown enormously since 1980, characterized by a high proportion of temporary residents. The population has been concentrated in the Central Region, particularly at Luohu. Also, the growth has been due to in-migration rather than natural increase. This large influx of migrants has altered the demographic and social characteristics of Shenzhen's population, creating a male-dominant, urbanized, economically active, and relatively better educated and trained population. Most people worked in state organizations - particularly in commercial and construction enterprises - but the industrial workforce was the largest sector. The in-migration policy has been further examined to reveal the authority's deliberate intention to entice skilled and semi-skilled labourers to the Zone. As professionals and technicians have been offered preferential treatment, they have formed a special class in Shenzhen. This tendency of polarization is further reflected by the examination of the economic well-being of Shenzhen's population.

ECONOMIC WELL-BEING

The wage reforms and the relaxation of rural policy accompanying the special economic zone strategy has diversified the income structure and raised income levels in Shenzhen. Between 1979 and 1984, the average wage per worker was raised by two and a half times; rural income, however, had multiplied fivefold. Nevertheless, the rise in real income was diminished by the simultaneous inflation in the prices of goods. Appraisals of changes in income and living costs, therefore, are necessary for any comprehension of the economic well-being of Shenzhen's population. Further, the distributive patterns also have to be considered because variations exist between workers in different sectors and enterprise types. Scarcity of data, however, impedes further explorations of the 'horizontal' apportionment of income. Nevertheless, by focusing on distributional trends and patterns, it is possible to examine the following topics: wage earnings; rural income; basic living costs; and the resultant real income.

Wage Earnings

In order to stimulate productivity, innovative remuneration measures have been introduced since the zone policy commenced, creating a more flexible and performance-oriented wage structure, and a general rise in rural income. Nevertheless, the reformed wage structure and the amended wage levels have not been homogeneous over the years. It is, therefore, necessary to detail wage reforms and the changes in wage levels.

Wage reforms. Prior to the official launch of wage reforms in 1982, various payment methods, including piece-rate wages, duty wages and floating wages, had already been practised in foreign-related firms, whereas workers in state-owned and collectively owned enterprises only received an extra amount of Rmb 15 as 'border district subsidy' (*Guangdong Jingji Tequ Yaolan 1981:84-5*). Subsequently, considerable wage discrepancies have developed among workers of different enterprises and sectors, and especially between factory workers, bureaucrats and teachers. As the achievements of the latter two categories were intangible, remuneration according to performance was difficult. Aggravated by the general rise in living costs, a universal wage reform was urged.

Thus, in March and April 1982, official wage reforms were initially carried out by the Youyi Restaurant and the Bamboo Garden Hotel on a trial basis, based on the *Regulations on Special Economic Zones in Guangdong Province* and the *Provisional Regulations of the Special Economic Zones in Guangdong Province on Labour Management and Wages in Enterprises*. The main items of reform included: (a) a shift from 'low wages but high subsidy' to 'high wages but low subsidy'; (b) the creation of duty wages and floating wages which associated wage levels with the worker's duty, responsibility, performance, and overall achievement of the enterprise. These practices were later applied to all new employees enlisted from 1 July 1982. In August 1983, the reform was further extended to all wage earners under the management of government instrumentalities, including Communist Party Organizations. As individual enterprises and institutions retained the right to formulate the precise wage structure, a range of wage systems had emerged by 1984, exhibiting differences in flexibility and incentives. They included: (a) piece-rate wages; (b) duty wages and floating wages; (c) duty wages, basic wages and floating wages; (d) duty wages, basic wages, seniority wages and floating wages (*Shenzhen Special Economic Zone Yearbook 1985:542*; Chen, 1984:294-300). Piece-rate wages and floating wages were the most common methods. These reforms had boosted the general wage level by raising the basic level and widening the channels for earning secondary salaries.

In August 1984, the wage policy was revised again in line with the imminent

abolition of the coupon system. Subsidies on the five basic goods (staple foods, oil, pork, coal and vegetables) channelled through the coupon system were transferred to the workers' monthly wages. Coupled with a general price subsidy and the 10 per cent increment derived from the reform of wage policy, the monthly salary for government and state enterprise employees was raised to Rmb 189 - an increase of 19 per cent on the previous year (*Shenzhen Special Economic Zone Yearbook 1985:550*). As a result of the wage reforms, there have been continuous variations in wage levels.

Wage level. Changes in the general wage levels in Shenzhen between 1979 and 1984 are provided in Table 5.11. The average monthly wages had increased from Rmb 65 in 1979, through a stagnant high of Rmb 103 in 1982 and Rmb 106 in 1983, to Rmb 165 in 1984. The 1982 wage level was one and a half times of the national average of Rmb 798 (Ip and Wu, 1985:221). This substantial increase in 1984 was the result of both the full extension of the wage reforms to state-owned enterprises and institutions since August 1983, and the revision of wages for government employees in August 1984 in preparation for the price reform of November 1984. As wages paid by state-owned enterprises and institutions accounted for the majority of total wages paid (79 per cent in 1983 and 81 per cent in 1984), the wage rise in state-owned enterprises and institutions had significantly raised the overall wage level. In 1985, wages continued to rise. Consequently, during the Plenary Session on Labour Wages in March 1985, the Shenzhen Government had to stress that monthly wage levels should be restricted to Rmb 200, except for highly profitable enterprises which could raise the wage ceiling to Rmb 250 (*Shenzhen Special Zone Daily*, 31 March 1985).

Table 5-11: Average Yearly and Monthly Income in Shenzhen Special Economic Zone, 1979-1984

Year	Yearly Income Rmb	Monthly Income Rmb	Increase Rate Per cent
1979	778.3	64.9	-
1980	998.9	83.2	28.3
1981	1180.3	98.4	18.2
1982	1238.2	103.2	4.9
1983	1267.5	105.6	2.3
1984	1981.0	165.1	56.3

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:606-7*.

Wage reforms, therefore, led to rises in income, either through the direct pay rises or a more flexible method of remuneration. By 1984, all wage earners were paid under the 'high wages but low subsidy' policy which emphasized performance. Rises in wages were rapid initially from 1979 to 1981, then subsided during 1982 and 1983, and were resuscitated in 1984. Having ascertained the earnings of urban workers, we can now proceed to examine rural income.

Rural Income

In the same vein, the rural sector has undergone a series of reforms to promote production and income. The mushrooming of the 'ten-thousand yuan households' endorses the success of these reforms. Thus, rural Shenzhen has been ascribed by the Chinese leadership as a successful model of rural reform. Indeed, rural income in Shenzhen has outstripped urban earnings. Hence, there is a pressing need to detail the rural reforms and the consequent changes in rural income, and compare them with variations in urban income.

Rural reforms. Radical reforms have occurred in rural Shenzhen since 1979. They have included: (a) the relaxation of regulation by the rural administration, (b) the diversification of agricultural production, and (c) 'pluralization' of rural activities. Since 1979, several liberal administrative measures have been introduced. For instance, some farmers have been allowed to grow vegetables and fish across the Hong Kong border. Some are also permitted to conduct 'border differential trade', that is, to sell their fresh agricultural products to Hong Kong privately and buy back goods for production and daily necessities. Imports of foreign investment and technology have also been promoted. Moreover, farmers residing in the border districts are granted full autonomy in farming (i.e. they can decide when and what to grow). In fact, since 1979, the 2,069 production brigades in the Municipality have been administered under the most liberal form of production responsibility system - *baogan daohu* (i.e. contracting everything to individual households). Under this system, all decision-making is devolved to individual households. The only obligation is the submission of an output value of HK\$150 for each mu (0.0667 ha) of agricultural land contracted to the authority (Zhang and Hu, 1984). Coupled with the government's intention to commercialize farming, this policy had led to diversification of farming and rural activities.

Since 1979, the cultivation of fresh agricultural products (e.g. vegetables, fruits, flowers, poultry, dairy cattle and aquatic products) for commercial distribution has been introduced, occupying more than one-quarter (100,000 mu) of original paddy field. Apart from supplying for local consumption, these products were also marketed in Hong Kong where they were sold for higher prices, thus augmenting rural income.

Non-agricultural activities were permitted and encouraged by the authority, leading to the flurry of commune enterprises. These firms have been mainly involved with industry (especially the processing industry), commerce, services, and transport (for construction work). In 1982, 273 non-agricultural enterprises were in operation. They had a capital of Rmb 92,860,000, and generated a total income of Rmb 20,330,000, which comprised 55 per cent of total rural income. They employed 3,885 workers, constituting 33 per cent of total rural employment.

Income level. These new measures had greatly increased rural income. As shown in Table 5.12, the total amount of collective income apportioned to rural members had increased almost fivefold between 1979 and 1984 - from Rmb 34,690,000 to Rmb 153,700,000. Similar growth rates were found in the net average income per capita - from Rmb 152 in 1979 to Rmb 656 in 1984 (*Shijie Jingji Daobao*, 28 September 1981; *Shenzhen Special Economic Zone Yearbook 1985:586*). The increase was particularly noticeable in 1982, with growth rates of 73 per cent in the total amount and 71 per cent at net average income per capita. Rates over 30 per cent were also achieved in 1980 and 1984.

Table 5-12: Yearly Rural Income in Shenzhen Municipality, 1979-1984

Year	Total Amount Apportioned to Commune Members		Net Average Income per Capita	
	Amount Rmb (1,000)	Change Per cent	Amount Rmb (1,000)	Change Per cent
1979	34,690	-	152.2	-
1980	46,500	34.0	208.5	37.0
1981	51,960	11.7	230.0	10.3
1982	89,640	72.5	393.0	70.9
1983	109,820	22.5	469.0	19.3
1984	153,700	40.0	656.0	39.9

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:586*.

Further, in 1982, a total of 2300 'ten-thousand yuan households' had emerged - one-quarter of the total rural households. Simultaneously, four 'ten-thousand yuan villages' near the border had arisen: the Yunong Village; Yumin Village, Luohu Village; and the Luofang Village (Zhang and Hu, 1984). Such an acceleration in rural income was unprecedented before the establishment of a Special Economic Zone in the area.

Rural-urban income comparison. Comparison of rural and urban income is difficult as a semi-wage economy has to be compared with a wage economy. Conroy (1984:2) has stated that as urban workers receive most of their income in wages and bonuses, and receive varying social and welfare benefits, it is difficult to quantify exactly the total benefits to the individual and his/her family gained from labour. Others have argued, however, that collective income of peasants has been consistently understated because a considerable portion of it has been paid in kind and valued below market prices (O'Leary (1981) as quoted in Conroy (1984)). Further, payment in kind is substantially undervalued, and richer collective units have often assigned considerable resources to the welfare sector (charging nominal fees or providing free services). Nevertheless, taking the ability to purchase consumer goods as the variable, Conroy (1984) has suggested that a net rural income of Rmb 500 per capita would derive a living standard comparable to that of the urban population - a standard only achieved by the rural sectors of Beijing and Shanghai. As shown in Table 5.12, Shenzhen's rural income level almost reached this standard in 1983, then surpassed it in 1984 when the net income level amounted to Rmb 656. Further, since 1982, Shenzhen's rural income has ascended well above the Rmb 300 criterion set for relative rural prosperity (Conroy, 1984).

Since the urban income of Shenzhen, however, is more than twice the average national wage level, the comparable level of rural income should be raised by a corresponding amount. Nevertheless, private income (such as that acquired through the sale of surplus produce, family sideline farming, profits from the 'differential border trade', wages obtained from working in the New Territories of Hong Kong) has gone unrecorded. Consequently, peasants have constituted the highest income group in Shenzhen (*The Seventies*, March 1982; *Zheng Ming*, January 1983; two Chinese economists interviewed in Guangzhou on 18 March 1982 and 15 May 1982). Indeed, a Chinese economist estimated an average weekly income of Rmb 300 to Rmb 400 for peasants but only Rmb 150 to Rmb 180 for urban workers (Fieldwork, 1982). Peasants at the border districts, according to another economist, enjoyed the highest income, followed by wage workers, peasants outside the border district, cadres and teachers. Without taking living costs into account (which are lower in the rural sector because a portion of basic food is provided by subsistence farming), rural incomes were comparable to, if not higher than, urban income.

Between 1979 and 1984, therefore, both urban and rural incomes had multiplied, with the former increasing by two and a half times and the latter by fivefold. The change in real income and thus purchasing power, however, has to be assessed in relation to variations in the costs of living.

Costs of Living

The costs of living in Shenzhen have escalated as the rapid expansion of urban population has resulted in shortages in housing and non-staple foodstuffs and created tension in transport and city management. The supply of non-staple foodstuffs was particularly inadequate. As reported in *Shenzhen Special Zone Herald* (19 July 1982), the average price for vegetables in 1981 was Rmb 10.6 per dan (50 kg), which was 130 per cent of the 1978 price. Further, supplies at listed price at the state grocers were always insufficient, hence, two-thirds of the shoppers had to purchase vegetables at negotiated prices.⁷ Indeed, the living costs in Shenzhen increased sharply during the initial three years following the informal operation of the Zone in 1979 but declined considerably in 1982 and 1983 when some controlling measures were taken. In 1984, the costs soared again when price reform was introduced. Each of these periods deserves further examination.

As shown in Table 5.13, the living costs of Shenzhen (calculated from the prices of forty-five basic commodity goods) rose sharply from Rmb 32 in 1978 to Rmb 58 in 1981 - an increase of 81 per cent in three years. The inflation is particularly remarkable when compared to the 23 per cent increase over the previous period of twelve years between 1966 and 1979 (Chen, 1984b). There was also a 42 per cent increase in the average price of 'social retailing goods' (i.e. non-staple food and service fees) between 1978 and 1981. Although manufactured goods, especially imported goods, were sold at prices lower than the national level, the general living costs in Shenzhen were the highest in the country.

In view of the mounting costs of living, several measures⁸ for controlling prices and improving supplies of essential goods were undertaken in the latter half of 1981 and were vigorously pursued after April 1982. Consequently, prices were stabilized with some even showing a noticeable decline.⁹ On the whole, the basic living costs between 1981

7. Both prices are set by the government. The negotiated price is decided according to supply and demand, and is therefore higher than the listed price. By setting a portion of the goods at the negotiated price, the market is confined to the genuine or better-off buyers, thus partially alleviating the supply problem.

8. These measures were aimed at enlarging the production of non-staple foods, facilitating the retail network, gaining more domestic supply, and conducting an overall price rectification over commodity goods and service fees (*Guangdong Jingji Tequ Yaolan* 1982; *Shenzhen Special Zone Herald*, 19 July 1982).

9. A survey conducted by the Shenzhen Municipal Pricing Bureau in mid-December 1982 showed that when the current prices of 197 commodity goods (of thirty-eight categories) were compared with those on 9 January 1981, only twelve were priced higher while eight were lower. Thus, the Bureau maintained that the 1982 price change complied with the national strategy of allowing marginal rises and falls which cancelled each other out overall (*Guangdong Jingji Tequ Yaolan* 1982:76).

Table 5-13: Monthly Costs for Basic Living in Shenzhen Special Economic Zone, 1966, 1978-1984

Year	Amount Rmb	Increase Rate Per cent
1966	26.2	-
1978	32.1	22.5
1979	40.9	27.4
1980	49.8	21.8
1981	58.0	16.5
1982	50.1	-13.6
1983	51.1	2.0
1984	57.8	13.1

Sources: *Guangdong Jingji Tequ Yaolan* 1982:75-78; Chen (1984b:311); *Shenzhen Special Economic Zone Yearbook* 1985:551.

and 1982 had dropped to Rmb 50 - a decrease of 14 per cent (Table 5.13). Although the average price for 'social retailing goods' increased by 8 per cent, the rise was trivial compared with the 42 per cent rise during the previous year (Chen, 1984b). More specifically, the supply of non-staple foods was improved and the price lowered. Larger quantities of non-staple foods were available in the market with a higher proportion sold at the listed price. The prices of some groceries had actually declined. According to the survey of 6 June 1982, most foodstuffs in the Shenzhen market were either lower than, or equivalent to, the prices of the same commodity in neighbouring counties¹⁰ (*Shenzhen Special Zone Herald*, 19 July 1982).

In 1983, the basic living costs increased by 2 per cent only. The average price for 'social retailing goods' also rose at the same rate (Chen, 1984b). Moreover, the volume of goods had increased.¹¹ A notable feature of the year was the increased influence of the market principle on the pricing system. It represented a gradual shift from listed or negotiated price monitored by the state to market prices decided by individual enterprises which offered goods of better quality and quantity. During the year, only 25

10. For instance, the price of pork in Shenzhen was the same as that in Dongguang and lower than Huizhou; fresh chickens were one-third cheaper than those in Guangzhou; fish was priced lower than that in Huizhou, Shantou and Guangzhou; vegetables were dearer than in Guangzhou but cheaper than in the neighbouring counties.

11. For example, vegetable supplies expanded by 96 per cent, aquatic products by forty-three times, poultry by more than twice, and pork by 98 per cent.

per cent of retail goods, and 35 per cent of the 'social retailing goods' were sold at listed prices (Chen, 1984b).

In November 1984, a drastic measure - the abandonment of the subsidized coupon system for the five basic necessities (staple foodstuffs, oil, pork, coal and vegetables) - was undertaken by the Shenzhen government to reform the price system. Instead of purchasing these goods at fixed quantities and at subsidized rates, the abolition of coupons meant that residents had to purchase them at negotiated prices. As shown in Table 5.14, prices rose. The price rise for peanut oil was the highest (116 per cent) whereas the lowest was briquet (14 per cent). Also, the prices for entertainment fees, newspapers, magazines, medicines and fuel increased markedly (*Shenzhen Special Economic Zone Yearbook 1985:552*).

Table 5-14: Prices of Five Basic Goods Before and After the Price Adjustment on 1 November 1984

Goods	Unit of Measurement	Before Adjustment Rmb	Price After Adjustment Rmb	Increase Rate Per cent
Rice				
a) No. 3, precision 93	catty	0.15	0.29	98.6
b) No. 3, precision 88	catty	0.18	0.32	81.8
Peanut oil	catty	0.93	2.00	115.1
Pork	Dan*	106.34	160.00	50.5
a) pork with fat	catty	1.40	2.10	50.0
b) lean pork	catty	2.40	3.20	33.3
Gas	Bottle (15 kg)	9.40	12.00	27.7
Briquet	Piece	0.025	0.06	140.0

Note: * One dan equals 50 kg.

Source: *Shenzhen Special Economic Zone Yearbook 1985:552*.

Consequently, the average price index rose by 16 per cent between October and December 1984 - a sharp rise compared with the 3 per cent increase rate between January and September. Accordingly, the monthly costs of living had risen to Rmb 66 in November and Rmb 72 in December (*Shenzhen Special Economic Zone Yearbook*

1985:551). Indeed, the average monthly living costs in 1984 reached Rmb 58, which were comparable to the highest recorded price in 1981 (Table 5.15).

Table 5-15: Changes in Monthly Basic Living Costs and Real Monthly Income, 1979-1984

Year	Living Costs		Money Wages Rmb	Real wages		Rural Real Income Per Capita	
	Rmb	Index*		Rmb	Increase Per cent	Rmb	Increase Per cent
1979	40.9	100.0	64.9	64.9	-	12.7	-
1980	49.8	121.8	83.2	68.3	5.2	14.3	12.6
1981	58.0	141.8	98.4	69.4	1.6	13.5	5.6
1982	50.1	122.5	103.2	84.2	21.3	26.8	98.5
1983	51.1	124.9	105.6	84.5	0.4	31.3	16.8
1984	57.8	141.3	165.1	116.8	38.2	38.7	23.6

Note: * The base year is 1979.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:551, 586, 606-7; Guangdong Jingji Tequ Yaolan 1982:75-78; Chen (1984b:311)*.

Nonetheless, the volume of fresh agricultural products continued to expand in 1984.¹² Indeed, Shenzhen enjoyed the best supply of non-staple foods. As well, the average price of 53 'sideline' agricultural products decreased by 5 per cent (*Shenzhen Special Economic Zone Yearbook 1985:548*). Fresh agricultural products in the Shenzhen market, however, also attracted external customers. Lower prices and the availability of some delicacies banned in the Hong Kong market (e.g. pangolin and masked civet) attracted housewives to shop in Shenzhen. Although the number of external shoppers was unrecorded, their presence raised the prices of, and demand for, goods in Shenzhen's free market (Fieldwork, 1984).

Hence, living costs in Shenzhen increased by 81 per cent between 1978 and 1981 because of the lack of price controls. Since 1982, however, the introduction of several effective measures increased the supply of goods and regulated prices, which deflated prices and facilitated stability until October 1984. Meanwhile, the influence of the free market on prices had widened, resulting in a higher proportion of goods purchased by

12. For example, vegetables increased by 96 per cent, aquatic products by 17 per cent, poultry by more than onefold, and pork by more than twofold.

negotiation. The removal of subsidies on the five basic goods in November 1984, however, has reinforced inflation. Nevertheless, the rise was anticipated and wages were revised prior to the price reform. Thus, we need to compare wage fluctuations with price variations to determine the real income and the purchasing power of Shenzhen's population.

Real Income and Purchasing Power

Both wage levels and living costs in Shenzhen have escalated, but at different rates. Hence, money wages have to be adjusted for inflation so that the real wage levels can be ascertained. The proportion of income spent on basic living costs also has to be examined to assess the population's ability to purchase tertiary and luxury goods. A comparative study between sectors is also necessary for identifying the distribution of real income.

Real income. The inflation rate in Shenzhen, as shown in Table 5.15, was consistently higher than 20 per cent between 1980 and 1984; it reached 41 per cent in both 1981 and 1984. The rise in money wages, however, was able to combat high inflation. Nevertheless, real wage increases were negligible in 1981 and 1983: 1.6 and 0.4 per cent respectively. In contrast, the increase was considerable in 1982 and 1984, particularly in the latter year, when a 38 per cent increase was recorded. Whereas the high rate in 1982 was attributable to effective price control, that of 1984 was due to a substantial wage increase.

Variations existed, however, between different types of enterprises. As illustrated by Table 5.16, the real wage levels of state-owned enterprises and institutions rose continually between 1980 and 1984. Paralleling the general trend of wage rises, growth in 1981 and 1983 was very low (0.9 per cent and 0.6 per cent respectively), but the increase in 1982 and 1984 was substantial, particularly in the latter year when real wages rose by 51 per cent. Conversely, real wages in collectively-owned enterprises dropped from Rmb 110 in 1982 to Rmb 81 in 1983. Although a 20 per cent rise occurred in 1984, the wages were still below the 1982 levels. Workers in foreign-related firms enjoyed the highest wage level in 1983 (Rmb 109), but received the lowest in 1984 - the result of a 20 per cent decline in real wages. If the higher wage level (Rmb 148) quoted by *Shenzhen Special Zone Daily* (16 April 1984) is adopted, however, the real wages was Rmb 105, showing only a slight decrease of 3.7 per cent.

Further differentiation among sectors can be identified within the state-owned enterprises (Table 5.17). Although basic living costs only increased by 2.4 per cent between 1982 and 1983, owing to a decline in money wages, real wages diminished in the sectors of construction and resource exploration (24 per cent), finance and insurance (14

Table 5-16: Changes in Real Wages in Enterprises of Different Ownership, 1979-1984

Year	Real Wages of Different Enterprises					
	State-owned		Collective		Foreign-related	
	Amount Rmb	Increase Rate Per Cent	Amount Rmb	Increase Rate Per Cent	Amount Rmb	Increase Rate Per Cent
1979	64.0	-	-	-	-	-
1980	69.6	8.8	-	-	-	-
1981	70.2	0.9	-	-	-	-
1982	82.1	17.0	109.6	-	-	-
1983	82.6	0.6	80.5	-26.6	108.8	-
1984	124.7	51.0	96.2	19.5	86.9	-20.1

Note: The base year is 1979.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:606-7*.

per cent), industry (9 per cent), and state and mass organizations (5 per cent). On the other hand, substantial rises in real wages were evident in all other sectors, particularly education, health and social welfare (47 per cent), urban public facilities (47 per cent), and agriculture, forestry, water and meteorology (36 per cent). Nevertheless, the situation was almost reversed in 1984. Wage increases were found in all sectors that experienced a decline in wages during 1983. The extent of increase ranged from: 117 per cent for construction and resource exploration; 59 per cent for state and mass organizations; 48 per cent for industry; to 45 per cent for finance and insurance. In addition, wage levels in the science and research sector and the commerce and services sector continued to rise at the rates of 106 per cent and 53 per cent respectively. Conversely, only marginal rises were experienced in sectors which enjoyed substantial wage increases in 1983. The agriculture, forestry, water and meteorology sector, and education, health and social welfare sector, in particular, suffered losses in real wages - 16 per cent for the former and 7 per cent for the latter. Hence, it seems that the Shenzhen government attempted to regulate real wage differences between sectors by alternating massive wage rises with meager increments or even wage reductions, and vice versa. By 1984, workers and staff in the science and research sector constituted the highest income group (Rmb 139), whereas those in the commerce and services sector ranked second (Rmb 137). In contrast, workers in agriculture, forestry, water and meteorology were the poorest paid (Rmb 83). Thus, five years of reforms and regulation have produced high income groups comprised of state workers and staff in the science and research sector, and the commerce and services sector.

Table 5-17: Changes in Real Monthly Wages in State Enterprises by Sector, 1982-1984

Sector	Real Monthly Wages			Rate of Wage Increase	
	1982 Rmb	1983 Rmb	1984 Rmb	1982-83 Per cent	1983-84 Per cent
Industry	89.2	81.1	120.3	-9.1	48.3
Construction and resource exploration	78.9	60.3	130.6	-23.7	116.6
Agriculture, forestry, and water and meteorology	72.6	98.9	83.0	36.2	-16.1
Transport, mail and telecommunications	90.1	97.8	104.1	8.5	6.4
Commerce and services	83.3	89.8	137.2	7.8	52.8
Urban public facilities	87.5	128.6	130.6	47.0	1.6
Science and research	47.6	67.4	138.6	41.6	105.6
Education, health and social welfare	85.4	125.7	116.6	47.2	-7.2
Finance and insurance	94.6	81.1	118.2	-14.3	45.7
State and mass organization	70.3	67.1	106.5	-4.6	58.7

Source: *Shenzhen Special Economic Zone Yearbook 1985:606-8.*

Comparison of urban and rural real income is problematical because of differential living costs (rural living cost is lower due to the general practice of subsistence farming and private housing), exacerbated by a lack of data on rural living costs and rural earnings on a per worker basis. Nevertheless, by comparing the rates of change, it is possible to indicate the relative affluence of these two population aggregates. As can be observed from Table 5.15, rural real income expanded annually between 1980 and 1984 despite high inflation rates. The growth was remarkable in 1982 - achieving almost a 100 per cent increase. The rates of increase, with the exception of 1984, were often markedly higher than those exhibited by the urban sector. Thus, the improvement in the standard of living was far more significant for the rural population than the urbanites until 1983. The wage reforms introduced in 1984 reversed the situation - real

urban wages expanded by 38 per cent and rural income by only 24 per cent. Nevertheless, the rural rate of growth was still greater than that managed by the collectively-owned and foreign related enterprises (Table 5.16).

Ratio of Living Costs to Income

Having compared the changes in income levels with price inflation, the proportion of income spent on basic living costs shall be ascertained to indicate the population's purchasing power for tertiary and luxury goods. During the 1984 wage and price reforms, the Shenzhen government forecast that a sum of Rmb 48 was necessary to cover the basic living costs and accordingly raised the average monthly wages to Rmb 189 (*Shenzhen Special Economic Zone Yearbook 1985:550-1*). In other words, only 25 per cent of money wages was expected to be spent on basic living costs. Table 5.18 shows that this standard had never been achieved although the ratio of living costs to wages had diminished by almost half between 1979 and 1984. The decline in the ratio from 0.6:1 in 1979 to 0.4:1 in 1984, implies that the purchasing power of Shenzhen's population on tertiary and luxury goods had been expanding overall. Indeed, visits to their homes confirmed that recently acquired electrical household appliances, such as rice cookers, tape recorders, refrigerators, stereo sets and television sets, were common. Gold ornaments in the two newly-opened jewellery shops were always out of stock since they were sold out quickly, indicating the purchasing power of the residents (Fieldwork, 1984).

Table 5-18: Ratio of Basic Living Costs and Monthly Wages in Shenzhen Special Economic Zone, 1979-1984

Year	Living Costs/Average Monthly Wages	Living Costs/Monthly Wages by Enterprise Ownership		
		State	Collective	Foreign-related
1979	0.63	0.64	-	-
1980	0.60	0.59	-	-
1981	0.60	0.58	-	-
1982	0.49	0.50	0.37	-
1983	0.48	0.50	0.51	0.38
1984	0.35	0.33	0.41	0.47

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:551, 586*.

More specifically, the ratio of living costs to monthly wages for those employed in

the state-owned enterprises declined slightly faster than the overall average - from 0.6 in 1979 to 0.3 in 1984 (Table 5.18). In contrast, it fluctuated for those employed in collective enterprises - increasing from 0.4 in 1982 to 0.5 in 1983, and then declining to 0.4 in 1984. For those employed in foreign-related firms, it increased from a low of 0.4 in 1983 to 0.5 in 1984 (*Shenzhen Special Economic Zone Yearbook 1985:551, 586*). The ratio remained static, however, if the wage levels provided by *Shenzhen Special Zone Daily* (16 April 1984) are adopted. Thus, on the whole, state workers enjoyed a steady improvement in their standard of living while those in the collective and-foreign-related firms experienced little or no growth in their power to purchase tertiary and luxury goods.

Table 5.19 provides further detail on the distribution of purchasing power between employees in different sectors. In 1982, workers in the finance and insurance sector devoted the lowest proportion (43 per cent) of their wages to basic necessities whereas those in science and research had to spend a major part of their income on basic living costs (86 per cent) - a difference of 43 per cent between the two sectors. Conversely, workers of other sectors had to spend about half of their wages on basic living costs. The pattern changed in 1983. Workers in the sectors of urban public facilities and education, health and social welfare devoted 32 per cent of their wages to basic living whereas construction and resource exploration workers devoted 68 per cent, and those in science and research, and state and mass organizations spent 61 per cent of their wages on basic goods. The purchasing power of Shenzhen's population, therefore, had improved. Differences between the highest and lowest ratios had diminished marginally to 36 per cent, and workers in most sectors spent less than half of their wages on basic living costs. Further advances were made in 1984. On average, workers spent only 35 per cent of their income on basic goods. The gap between groups with the highest and lowest ratios had been reduced to 0.2 (0.3 for the sectors of commerce and service, and science and research, and 0.5 for the sectors of agriculture, forestry, water and meteorology).

Between 1982 and 1984, the decline in the ratio of living costs to basic wages was marked in the science and research sector (i.e. 0.9 in 1982, 0.6 in 1983, and 0.3 in 1984). The decrease in the commerce and service sectors was also considerable: from 0.5 in 1982 to 0.3 in 1984. A slow decline was also experienced among workers of public facilities and transport, mail and telecommunications; all other sectors recorded fluctuations. Thus, workers in the science and research sector experienced the greatest increase in purchasing power.

Unfortunately, it is not possible to ascertain the ability of rural labourers to purchase tertiary and luxury goods since data on rural living costs and rural incomes per

**Table 5-19: Ratio of Basic Living Costs and Monthly Wages
by Sector in Shenzhen Special Economic Zone, 1982-1984**

Sector	Living Costs/Monthly Wages		
	1982	1983	1984
Industry	0.46	0.50	0.34
Construction and resource exploration	0.52	0.68	0.31
Agriculture, forestry, and water and meteorology	0.56	0.41	0.49
Transport, mail and telecommunications	0.45	0.42	0.39
Commerce and services	0.49	0.46	0.30
Urban public facilities	0.47	0.32	0.31
Science and research	0.86	0.61	0.30
Education, health and social welfare	0.48	0.33	0.35
Finance and insurance	0.43	0.50	0.35
State and mass organization	0.58	0.61	0.38

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985*:551, 606-8.

worker have not been published. Nevertheless, data on the savings of the urban and rural sectors shed some light on this matter. As illustrated in Table 5.20, savings per capita increased almost eightfold between 1980 and 1984, confirming the improved purchasing power of Shenzhen's population. Moreover, the rates of increase had expanded from 78 per cent to 119 per cent. More specifically, the increased rates of the rural sector were always higher than the urban sector. Although the amount of savings per capita in the latter sector were higher than the former between 1980 and 1982, rural savings were considerably greater than urban savings in 1984. The lower savings of the rural in the initial years could possibly be due to investments in farming facilities as rural activities diversified. Hence, the ability of the country residents to purchase tertiary and luxury goods could have been higher than, or comparable to, city dwellers.

Since the operation of the special economic zone policy, therefore, Shenzhen's

Table 5-20: Savings in Shenzhen Special Economic Zone, 1979-1984

Year	Amount		Urban Population		Rural Population	
	Per capita*	Change	Amount	Change	Amount	Change
	Rmb	Per cent	Per capita Rmb	Per cent	Per capita Rmb	Per cent
1979	-	-	374	-	-	-
1980	231	-	270	-27.8	183	-
1981	410	77.5	424	57.0	390	113.1
1982	525	28.0	554	30.7	480	230.8
1983	819	56.0	800	44.4	869	81.0
1984	1,796	119.3	1,700	112.5	2,168	149.5

Note: * Based on permanent residents only.

Source: *Shenzhen Special Zone Herald*, 14 February 1983; *Shenzhen Special Economic Zone Yearbook* 1985:604.

population has experienced a marked improvement in its real income, especially after the wage and price reforms of late 1984. Prior to these reforms, rural real income grew faster than urban wages. Moreover, the ability to purchase tertiary and luxury products was stronger in the rural sector. After the 1984 wage and price reforms, the economic well-being of the urban sector increased to match that of the rural population. The desired criterion of spending only one-quarter of money income on basic living costs, however, had not been achieved. Nevertheless, the government had succeeded in minimizing differential real income between sectors through regulation of wage levels between 1983 and 1984 by granting substantial or marginal increments. Yet, a marked increase for workers in the science and research sector shows that, despite its regulatory policy, the government had been determined to raise their socio-economic status. Both income levels and the basic living costs in Shenzhen had increased between 1979 and 1984. Further, the patterns of expansion were similar: an initial surge between 1979 and 1981; a slow or negative growth in 1982 and 1983; and a resurgence in 1984. The general increase in wages, however, had always been higher than that of living costs despite high inflation in 1980, 1981 and 1984. Thus, the population of Shenzhen had experienced a genuine improvement in real income. More specifically, prior to the 1984 wage and price reforms, the rural population, particularly those residing in the border region, enjoyed a faster growth in income and a rapid improvement in their purchasing power. Among the urban wage earners, the real income of those in state-owned enterprises and institutions increased, whereas those in the collective firms fluctuated

and those in foreign-related firms declined. By 1984, workers in the science and research sector, and in the commerce and services sector had acquired the highest real income levels. Although the economic well-being of Shenzhen's population had been improved, and attempts had been made to minimize sectoral variation in wages, differential income levels did emerge. In order to further comprehend this process of socio-economic stratification occurring within the Zone, we need to examine the provision of social services.

PROVISION OF SOCIAL GOODS

An examination of the provision of social goods in Shenzhen provides an indication of whether the special economic zone policy can meet the daily needs of the masses - the pronounced beneficiaries of the general modernization program. In Shenzhen, as in other Chinese cities, 'social goods' range from housing through medical facilities and education to public transport, recreation facilities, and the supply of water and fuel. Apart from delineating the supply of these goods, it is important to highlight the standard of provision by contrasting Shenzhen's levels with those provided in Guangzhou, the provincial city. Accessibility to these goods will also need to be explored through an identification of their geographical and socio-economic distribution. Although the absence of transport data precludes an analysis of residents' accessibility, an enumeration of land-use activities within a defined geographical area does give a good indication of the supply of local opportunities (see Rimmer, Black and Kuranami, 1982). Because available data on public transport, recreational facilities and public utilities is poor, attention is focused on housing, medical facilities and education.

Housing

Housing was initially one of the chronic problems of the Zone as construction could not keep pace with rapid population expansion. Indeed, new arrivals had to live under appalling conditions (such as in an abandoned school) for up to a year before proper accommodation could be offered. In particular, temporary construction workers had to stay in 'mat shed' type dormitories (Fieldwork, 1982). To ease the problem, old houses in the nearby villages were renovated for leasing (Ng, 1983b). The large-scale construction of state housing, however, has been the major means used to resolve the problem. Thus, the progress of housing construction, types of housing, and the rent and purchase policy need to be addressed.

Housing Construction. As illustrated in Table 5.21, the size of residential floor areas had expanded tremendously between 1979 and 1984 from 53,000 sq m to 1,238,000 sq m. In 1984 alone, 614,000 sq m was added to the store. Also, the per capita

residential floor area had improved - increasing from 3.5 sq m in 1979 to 9.6 sq m in 1984. While the increase in 1982 was negligible (0.3 sq m), that in 1984 was notable (1.9 sq m). Indeed, by 1984, Shenzhen had acquired the highest per capita residential floor area in the country (*Shenzhen Special Economic Zone Yearbook 1985:315*). Compared with Guangzhou, which provided 3.5 sq m residential area per capita in 1982, 4.9 sq m in 1983, and 5.3 sq m in 1984, the residents of Shenzhen were offered living units at least 57 per cent larger¹³ (*Guangzhou Economic Yearbook 1984:662; Guangzhou Yearbook 1985:597; Shenzhen Special Economic Zone Yearbook 1985:315*).

Table 5-21: Housing Construction in Shenzhen Special Economic Zone, 1979-1984

Year	Finished Residential Floor Area sq m (1,000)	Residential Floor Area per capita	
		sq m (1,000)	Annual increase Per cent
1979	53	35	27.4
1980	179	56	60.0
1981	234	62	10.7
1982	456	65	4.8
1983	624	77	18.5
1984	1238	96	24.7
Total	2784	-	-

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:315*.

Types of housing. Most new housing units have been living quarters supplied to workers by their institutions or enterprises. Basically, three types of living quarters have been built: three or four bedroom units with one or two verandahs that are offered to factory directors, section chiefs, school headmasters, high-ranking technicians and professionals; two bedroom units that are offered to married workers of different trades; and rooms with two double-decked bunks shared by four single workers (Fieldwork, 1982). Hence, different types of housing were allocated according to employment and

13. This comparison, and those in the following sections, are based on the permanent populations in both cities. Although the number of temporary residents in Shenzhen may be larger than that in Guangzhou, and therefore lowers the per capita ratio of social facilities to the total population, the absence of official data on the size of Guangzhou's temporary population impedes full comparison. In any case, comparisons based solely on permanent population are more meaningful in the long term.

marital status, with a major emphasis on the former. As individual institutions or enterprises usually accommodated their staff and workers within the same building adjacent to or at the workplace, the different types of quarters were located at the same place - a practice preventing the emergence of spatial stratification of housing types.

Apart from living quarters, the Shenzhen authority also began to construct housing estates in designated residential areas. Between 1982 and 1984, fourteen housing estates were developed (e.g. Xiabumiao, Yuanling, Huaxin, Mutoulong). These housing estates were usually surrounded by green belts, and provided with shopping centres, post offices, markets, sports grounds, recreation areas, clinics and kindergartens. The size of apartment ranged from fifty to 120 sq m. Better building materials¹⁴ were also used. These housing estates had been built and administered by the Shenzhen Special Zone Urban Construction and Residential Development Company. Apart from renting or selling the units to institutions and enterprises as living quarters for their staff, they were also available for private sale. Unfortunately, no data have been available to analyse the socio-economic status of the occupants (*Shenzhen Special Economic Zone Yearbook 1985:614; Shenzhen Special Zone Daily, 16 January 1985*).

In the rural areas, owing to the substantial income rise, most families were able to build their own houses which were usually two-storey buildings costing Rmb 40,000. The floor area of each house averaged 180 sq m. Usually, these houses had a big lounge room, a kitchen, a toilet, a bathroom and a bedroom downstairs, and another lounge room, two bedrooms and one or two verandahs upstairs. These rural houses, financed by private funds, were known to be the best type of housing in the Zone (Fieldwork, 1982, 1984; *New Look of Shenzhen Special Economic Zone:15*).

Rent and purchase policy. Since housing is a subsidized social good, rent in Shenzhen was very low before the full implementation of the 'high rent but low sale price' policy which was started in Shekou in 1981. In 1982, monthly rents, depending on the type of housing supplied, only ranged between Rmb 0.08 to Rmb 0.12 per sq m. Hence, for a unit of 40 sq m, the monthly rent was only Rmb 3.2 to Rmb 4.8 (*Guangdong Jingji Tequ Yaolan 1982:76*). In 1984, however, a family occupying a two to three bedroom unit in Shangbu might have to pay a monthly rent of Rmb 15 to 20. Rents were even higher in Shekou because of the higher wages enjoyed by workers. Singles sharing a room were charged Rmb 9 for rent and Rmb 1.1 for electricity, while a family keeping a two to three bedroom unit were charged Rmb 30 (Fieldwork, 1984).

The 'high rent but low purchase price' policy which was motivated by the desire to quicken capital return for construction and mitigate government subsidies after

14. For example, spray lacquer, latex paint, aluminium window frames.

substantial wage rises. Due to the relatively higher wages offered to workers in the Shekou Industrial Zone, the policy was first introduced to this Zone in early 1981. As an encouragement to residents to purchase their own housing, rent was raised to Rmb 0.7 per sq m, while the ten-year instalment rate for house purchase was only set at Rmb 1.2 per sq m (*Guangdong Jingji Tequ Yaolan 1981:78*). Further, if a resident bought the same unit as a sitting tenant, the purchase price was reduced by the total amount of rent paid. The policy seemed to have received a good response, as the Party Secretary of Shekou claimed that it had helped to resolve the housing problem (*Shenzhen Special Economic Zone Yearbook 1985:62-3*).

Commodification of housing in other parts of Shenzhen was not vigorously promoted until 1984. In February 1985, the Shenzhen authority offered a further subsidy to house purchasers through the issue of *The Trial Method for the Commodification of Housing for Workers and Staff of the Administrative Units and Institutions of Shenzhen Special Economic Zone* (*Shenzhen Special Zone Daily*, 6 February 1985). The regulations stipulated that the government would extend a 50 per cent subsidy to all prospective house purchasers. The size of subsidized housing ranged from 70 sq m to 190 sq m, allocated according to the vocational ranking of the purchaser. Units were priced between Rmb 400 and Rmb 500 per sq m, depending upon the facilities installed and the quality of the building. The subsidized cost could be paid by instalment, deducted from wages and cleared within a maximum period of fifteen years. If the whole sum was paid within one year, a 30 per cent discount would be granted. If paid within three years, 25 per cent would be deducted, and within five years, 20 per cent. The regulations also stipulated that the buyer possessed the ownership of building property which could be transferred or inherited, but not leased, mortgaged or sold. Although the regulation was drafted for workers and staff in government administrative units and state-owned institutions, other organizations were encouraged to make arrangements based on the regulations (*Shenzhen Special Zone Daily*, 9 February 1985). No data have been provided on the total number of units sold. It is known, however, that 8,118 units in the housing estates had been sold to domestic buyers by 1984¹⁵ (7,084 units to foreign buyers) (*Shenzhen Special Economic Zone Yearbook 1985:465*). Assuming that all these units were purchased by private households (some would have been purchased by various institutions and enterprises to accommodate their staff), 25 per cent of the urban households would have acquired their own dwellings by that date.

15. As the average monthly income in the Zone was Rmb 165 in 1984 but the lowest instalment payment was Rmb 156 per month, house purchases had to be limited to those who either had high wages or had accumulated considerable savings, and families with more than one wage earner (Fieldwork, 1984).

Thus, despite speedy population expansion, Shenzhen residents were offered more spacious housing than those in Guangzhou. More specifically, the rural population enjoyed the highest quality of housing, followed by the top echelon of cadres and technicians. As noted, there was no segregation of house types. Hence, no geographical residential patterns based on socio-economic characteristics emerged. It is clear from the housing allocation policy, however, that higher ranked cadres and staff had the best access to higher quality housing either for rent or purchase. Indeed, the subsidization method assisted the higher income groups to acquire their own housing more cheaply as further concessions were granted to those who could afford to buy housing units, and pay within a shorter time limit. The commodification of housing, as evidenced from the fivefold rent increase between 1982 and 1984, and the encouragement of house purchase, stemmed from the government's desire to reduce subsidies in view of the mounting wage levels. Conversely, the provision of medical services was fully borne by the government.

Medical Facilities

At the onset of the special economic zone policy, medical facilities in Shenzhen were limited, comprising only one small hospital, six clinics, one epidemic prevention station and one maternity and child care centre. Total medical personnel numbered 555, 130 of whom were medical practitioners (including qualified doctors and those receiving intermediate medical education only). While only 258 hospital beds were available, medical equipment was scarce.¹⁶ (*Shenzhen Special Economic Zone Yearbook 1985:507*).

The explosion of population since 1980 demanded urgent improvements. By 1984, over Rmb 35,000,000 had been spent on medical facilities. As can be observed from Table 5.22, five new hospitals had been built since 1982, and the number of clinics also increased from sixteen to eighty-six. Although not all the hospitals provided accommodation, after five years of hospital construction and renovation, the number of hospital beds had mounted to one thousand in 1984, fostering a ratio of 5.2 beds per 1000 population. It compared favourably to the 2.9 beds per 1000 population in Guangzhou. Further, much advanced and sophisticated equipment had been imported¹⁷ (*New Look of Shenzhen Special Economic Zone:213*).

Four hospitals were classified as 'first-grade' - the Shenzhen Municipal People's Hospital, the Shenzhen Municipal Chinese Medicine Hospital, the Maternity and Child Care Hospital, and the Kangning Hospital (psychiatric hospital). The Shenzhen

16. It consisted of two electrocardiogram machines, two ultrasound units, and one X-ray unit.

17. It included a central oxygen supply system, a central respiration system, computer-controlled sectional scanners, and B-type ultrasonic diagnosis instruments.

Table 5-22: Medical Facilities in Shenzhen Special Economic Zone, 1979-1984

Year	Hospital*	Clinics	Hospital Beds Number	Ratio per 1000 population+
1979	8	16	258	3.6
1980	8	29	254	3.0
1981	8	34	402	4.0
1982	9	47	367	2.8
1983	13	57	432***	2.6
1984	11**	86	1000***	5.2

Notes: * Not all hospitals provide accommodation. ** The drop in number is owing to the exclusion of two commune hospitals as hospitals. *** The figure provided on p.510 of the Yearbook, rather than p.613 is adopted because the former is included in a section which deals specifically with medical facilities and offers an explanation of the changes in the number and ratio of hospital beds. The reasons for the decline in number and ratio were the rapid expansion of population and the demolition of some existing hospitals for renewal and expansion. + Permanent population only.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:510, 613*.

Municipal People's Hospital was the pivotal hospital. It occupied a total floor area of 27,700 sq m, and provided six hundred beds equipped with an intensive medical care ward. The capacity of its Outpatient Department was 3,000 patients per day. Seven thousand medical employees were employed, catering for a number of specialized medical departments.¹⁸ Other hospitals were mostly specialized hospitals; these included the Shenzhen Municipal Chinese Medicine Hospital, the Gynaecological and Paediatric Hospital, the Ophthalmological Hospital and the Stomatology Hospital. Hence, by 1984, Shenzhen had been able to provide a wide range of medical services (*Shenzhen Jingji Tequ Shouce:161; Shenzhen Special Economic Zone Yearbook 1985:507; Wen Wei Po, 3 January 1985*).

Geographically, these hospitals were located in the most populated districts of Luohu and Shangbu (Fig. 5.S). Indeed, all four first-grade hospitals were based in these

18. These included internal medicine, surgery, gynaecology, paediatrics, dermatology, ophthalmology, otolaryngology, radiography, and Chinese medicine, acupuncture and moxibustion.

two districts. Although the locations of other medical centres and clinics were not published, an examination of the distribution of hospitals suggests that the pattern minimized travel time.

In terms of medical personnel, the Zone was able to recruit a larger and better qualified workforce. As shown in Table 5.23, not only was the number of medical staff expanded, but the ratio of doctors and nurses per 1000 population also increased. Prior to the establishment of the Zone, there were only 1.1 nurses and 1.5 doctors for every 1000 persons. By 1984, the ratios had steadily increased to 2.2 and 3.4 respectively. In fact, both ratios were higher than those for Guangzhou in 1983 and 1984: 2.0 nurses per 1000 population compared to 1.8, and 2.5 qualified doctors compared to 2.1 in 1983; and 2.2 nurses compared to 1.8, and 3.4 doctors compared to 2.0 in 1984 (*Guangzhou Yearbook 1985:526, 569*).

Since the establishment of the Zone, therefore, the Shenzhen authority had been able to improve medical services by providing a wider range of medical treatment. Moreover, by 1984, the ratios of hospital beds, doctors, and nurses to the population size had been raised above the levels of Guangzhou, the provincial city. As noted, the distribution of hospitals closely matched the pattern of population distribution, thereby facilitating accessibility to these services. The distributive pattern of schools also exhibits similar characteristics.

Education Facilities

At the onset of the special economic zone policy in 1980, there were 238 primary schools, seven secondary schools and one intermediate vocational school in Shenzhen, catering for 14,744 students, with a teaching staff of 757. Since 1980, the influx of young and economically active immigrants put great pressure on education facilities as they brought their school age children with them. In 1982 and 1983, more than 12,000 students had migrated with their parents to the Zone, thus causing the problems of insufficient teaching staff and school facilities (*Shenzhen Special Zone Daily*, 10 January 1984). As those problems directly affected the willingness of prospective migrants to move to the Zone, the Shenzhen authority had given priority to solving these problems. Hence, in 1982 and 1983, a total amount of Rmb 22,882,000 was put into school construction (*Shenzhen Special Zone Daily*, 10 January 1984). A further Rmb 30,000,000 was invested in 1984 (*Shenzhen Special Zone Daily*, 27 February 1984). In 1984, in order to hasten school construction, the task was assigned as a project under urban planning and construction, rather than delegating it to individual school authorities.

Consequently, between 1980 and 1984, one tertiary institution (the Shenzhen

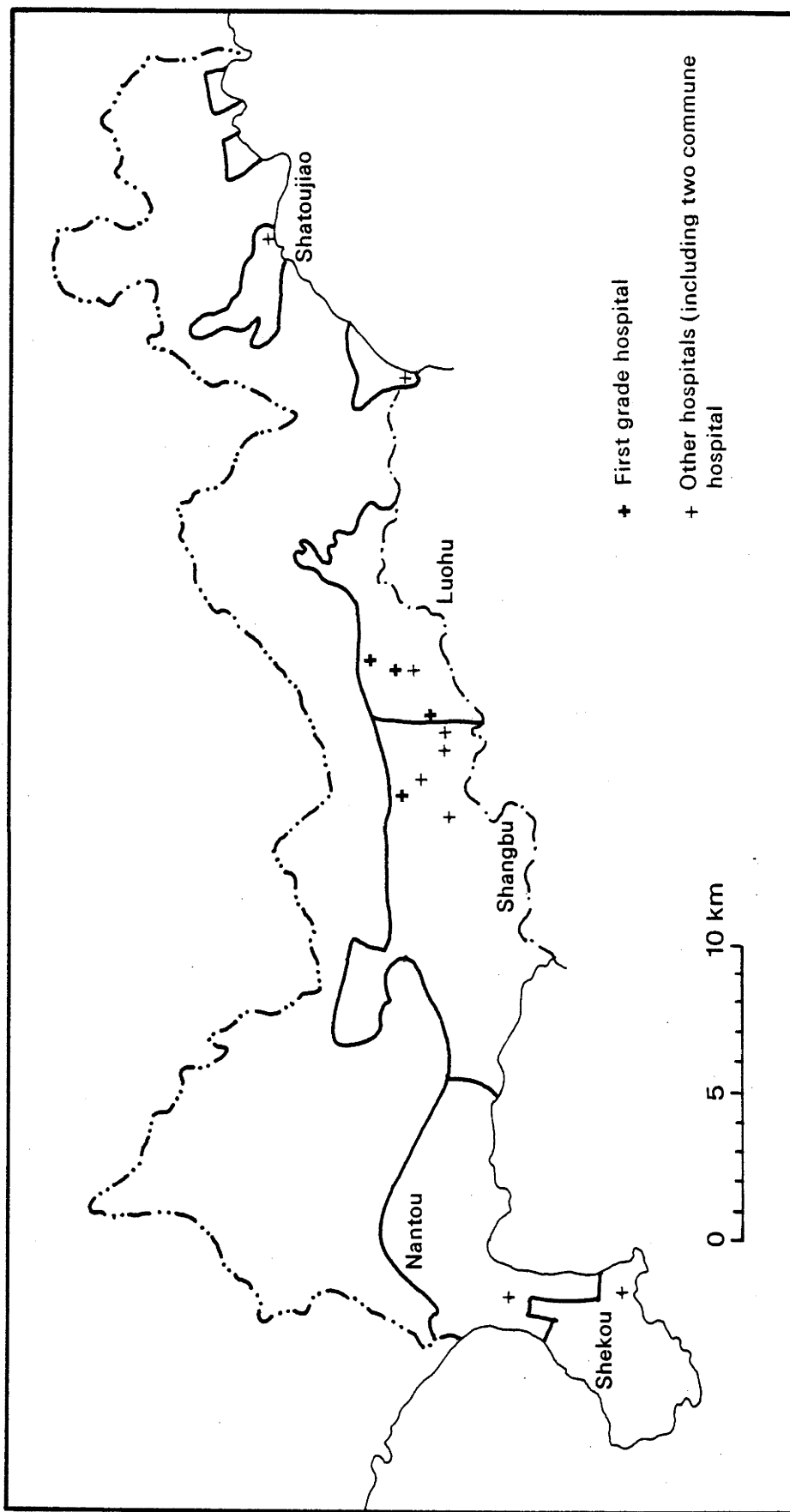


Figure 5.8: Locations of hospitals in Shenzhen Special Economic Zone, 1984. (Source: Based on Shenzhen Special Economic Zone Yearbook 1985:509.)

Table 5-23: Medical Personnel in Shenzhen Special Economic Zone, 1979-1984

Year	Nurse*		Doctor***	
	Number	per 1000 population**	Number	per 1000 population**
1979	79	1.1	108	1.5
1980	106	1.3	140	1.7
1981	137	1.4	160	1.6
1982	170	1.4	241	1.9
1983	326	2.0	410	2.5
1984	429	2.2	643	3.4

Notes: * Nursing aides are included. ** Permanent population only. *** Qualified doctors only.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:510*.

University), six intermediate vocational schools, seven secondary schools and twenty-four primary schools had been built (Table 5.24). The total number of students had also increased two and a half times from 14,744 to 38,722. In particular, the number of secondary school students had increased more than threefold from 3,718 to 12,900, while primary school students had more than doubled from 10,884 to 24,800. By the end of 1984, the demand for primary and secondary education had been met, according to newspaper reports, and surplus places were available for newcomers (see, for example, *Shenzhen Special Zone Herald*, 25 December 1984). Universal secondary education had been achieved as 90 per cent of primary school graduates had continued on to lower secondary education, and 85 per cent of lower secondary school graduates had been promoted to higher secondary education (*Shenzhen Special Zone Daily*, 26 February 1985). By 1984, Guangzhou had been able to achieve universal primary education. Thus, the younger population of Shenzhen enjoyed better opportunities for higher education.

More specifically, in the most populated district of Luohu, six secondary schools and nineteen primary schools had been built by December 1984, providing over 20,000 places. In the Shangbu District, three secondary schools, and six primary schools had been constructed since 1980, catering for 4,800 students. Most students attended schools, according to reports, within their own residential districts (*Shenzhen Special Zone Daily*, 25 December 1984).

**Table 5-24: Number of Schools and Students in
Shenzhen Special Economic Zone, 1979-1984**

Year	Tertiary Institutions		Intermediate Vocation School		Secondary School		Primary School		Total	
	(1)*	(2)*	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1979	-	-	-	80	7	3,480	38	9,326	46	12,886
1980	-	-	1	142	7	3,718	39	10,884	47	14,744
1981	-	-	4	133	9	4,761	43	13,458	56	18,352
1982	-	-	5	262	10	6,901	45	15,996	60	23,159
1983	1	216	4**	310	12	9,400	49	18,600	65	28,310
1984	1	689	7	1,072	14	12,900	63	24,800	84	38,772

Note: * (1) = School; (2) = Student. ** The decline was due to the combination of Shenzhen Municipal Teachers' Training School with the In-service Training School for Secondary and Primary School Teachers to form the Shenzhen Municipal Education College at the end of 1982. However, a training school for lower secondary school teachers at the intermediate vocational level was re-established in 1984.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:611*.

Alongside an increase in the number of schools and students, the Shenzhen authority had also recruited teachers from other parts of China (e.g. Beijing, Shanghai and Guangzhou). Between 1980 and 1984, the number of teachers had increased from twenty-five to 128 in the intermediate vocational schools, from 284 to 714 in the secondary schools, and from 448 to 981 in the primary schools (Table 5.25). Although the student-teacher ratios (number of students per teacher) fluctuated between 1979 and 1984, they were much higher in 1983 and 1984. Compared with the same ratios in Guangzhou, each secondary teacher in Shenzhen had to cater for five more students in 1983, and 2.2 more in 1984. Similarly, each Shenzhen primary school teacher had to take care of four more students in 1983, and 3.4 more in 1984 (*Guangzhou Economic Yearbook 1984:704*; *Guangzhou Yearbook 1985:622*; *Shenzhen Special Economic Zone Yearbook 1985:611-2*).

Thus, due to the rapid progress in school construction and the recruitment of teachers from different parts of the country, the Shenzhen authority was able to provide sufficient primary and secondary education to children of school age by 1984. As noted, students in the two most populated administrative districts had only to travel a short distance to school. Compared with Guangzhou, however, teachers had to cater for a

Table 5-25: Size of Teaching Workforce and the Student-teacher Ratio in Shenzhen Special Economic Zone, 1979-1984

Year	Tertiary Institutions		Intermediate Vocational School		Secondary School		Primary School	
	Teacher Number	No. of Students per Teacher	Teacher Number	No. of Students per Teacher	Teacher Number	No. of Students per Teacher	Teacher Number	No. of Students per Teacher
1979	-	-	22	3.6	266	13.1	381	24.5
1980	-	-	25	5.7	284	13.1	448	24.3
1981	-	-	50	2.7	354	13.4	417	32.3
1982	-	-	31	8.5	479	14.4	743	21.5
1983	80	2.7	44	7.0	470	20.0	700	26.6
1984	109	6.3	128	0.4	714	18.1	981	25.3

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985:611-2*.

higher number of students in 1983 and 1984 when full primary and secondary school education was provided to all children.

Other Facilities

Transport. Since 1980, public transport in Shenzhen has been improved and diversified. In addition to buses, minibuses and taxis have also been introduced. As shown in Table 5.26, the number of buses had increased from twelve in 1979 to 142 in 1984. Similarly, the number of routes had also expanded from two to fourteen, among which nine were inter-city routes serving all industrial, residential and commercial areas. Despite these improvements, passengers still found the bus service inadequate as the buses were infrequent and full. As illustrated by Table 5.26, no improvement was made in the ratio of population to buses until 1983 when it declined to 1875 persons per bus and 1348 persons per bus in 1984. Although the ratios had declined below the Guangzhou level in 1983 and 1984 (2436 and 2656 persons per bus respectively), the presence of a comparable size of temporary population had, in fact, almost doubled the ratio in Shenzhen to 4404 in 1983, 3239 in 1983, and 2380 in 1984. Indeed, fieldwork in 1984 confirmed that bus services were far from adequate. Further, although the supply of taxi services appeared to be ample, totalling 1296 cars in 1983 and 2046 in 1984, local residents made little use of this more expensive option. In order to gain higher fares in foreign exchange certificates and Hong Kong currency, drivers refused to take locals and passengers who either paid in Chinese Currency, or went for short trips (Fieldwork, 1982

and 1984; *Shenzhen Special Zone Daily*, 30 August 1984). Although the authority despatched inspectors to eradicate these malpractices, the problems still persisted in November 1984 (*Shenzhen Special Zone Daily*, 15 November 1984). Hence, self-owned bicycles and services provided by minibuses were good alternatives to buses and taxis. Although the minibuses were more flexible and efficient, they charged Rmb 0.5 per trip - ten times the normal bus fare (Rmb 0.05) (Fieldwork, 1984).

Table 5-26: Bus Service in Shenzhen Special Economic Zone, 1979-1984

Year	Bus Number	Bus Route Intra- city Number	Outskirts Number	Passenger Volume (1,000)	Population*/Bus persons
1979	12	2	-	-	5,908
1980	38	2	1	-	2,213
1981	44	3	2	1,580	2,234
1982	52	3	2	5,360	2,473
1983	88	5	2	13,990	1,875
1984	142	9	5	29,740	1,348

Note: * Permanent population only.

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985*:339, 581.

Recreation facilities. Recreation facilities in Shenzhen were minimal by 1984, despite the undertaking of construction projects (a sports centre, five parks, library, museum, theatre, book stores and an art centre) two years earlier. Although the number of film screening units had increased to sixty-six, there were only three cinemas in Shenzhen (Table 5.27). The old cultural centre, museum and library were poorly equipped (Fieldwork, 1982). Fortunately, although there were only three local performing organizations, others had visited the Zone. In 1983 alone, thirty-five theatre troupes performed in the Shenzhen Cinema (*Shenzhen Special Zone Daily*, 30 April 1984).

Recreation activities had been hosted by government organizations (e.g. the Municipal Cultural Bureau, Workers' Union, the Communist Youth League), various workers' clubs, and other amateur organizations (e.g. the Luohu Troupe of Musicians and Artists, and the Workers' Music Association). These activities included singing contests, art exhibitions, drama, musical performances, Tai Chi classes, dancing classes, dancing parties, and speech contests (*Shenzhen Special Zone Herald*, 19 July 1982;

Table 5-27: Cultural and Entertainment Facilities in Shenzhen Special Economic Zone, 1979-1984

Facilities	Year					
	1979	1980	1981	1982	1983	1984
Film screening units	4	11	16	38	44	66
Performance organization	1	1	1	2	3	3
Cultural centre	1	1	1	1	1	1
Museum	-	-	-	-	-	1
Library	1	1	1	1	1	1
Television channel	-	-	-	-	1	1

Source: Based on *Shenzhen Special Economic Zone Yearbook 1985*:610.

Shenzhen Special Zone Daily, 16 January 1984, 17 May 1984, 10 June 1984, 27 August 1984).

Private leisure activities ranged from watching television at home to visiting holiday resorts. Television and radio programs broadcast from Hong Kong were very popular. Visits to the tourist spots, originally built to attract Hong Kong tourists, were exciting as they provided activities not offered elsewhere. These included horse riding, archery, boating and shooting. Disco dancing and electronic games were also favoured by youngsters. Sports activities, such as badminton, basketball, soccer and martial arts also received mounting interest. Dining in the new restaurants or taking supper at the foodstalls along the street were also enjoyed. A general interest in reading was reflected by the large patronage of the two new book shops selling imported as well as indigenous publications. The favoured subjects were history, foreign languages, technology and economics. Gambling was popular but was carried out beyond the public gaze (Fieldwork, 1982 and 1984; *Shenzhen Special Zone Daily*, 4 May 1984; *The Seventies*, March 1982). Thus, with the limited recreation facilities, a considerable proportion of the leisure activities enjoyed by local residents were related to Hong Kong (e.g. the television and radio programs) or originally provided for Hong Kong tourists (e.g. electronic games, activities in the holiday resorts and restaurants). Finally, we have to consider water and gas supplies in Shenzhen.

Water supply. The construction of new water pipes and water utility (e.g. the Shatoujiao water utility and Shangbu water utility), had resulted in a steady expansion

in the supply of tap water to residents (Table 5.28). Between 1979 and 1984, the Shenzhen Municipal Tap Water Company was able to provide tap water to an extra 137,000 people. The proportion of the population using tap water also increased from 43 per cent in 1979 to 89 per cent in 1984. Although considerable progress has been made in Shenzhen, it still fell short of the 100 per cent tap water supply in Guangzhou (*Guangzhou Yearbook 1985:596*). Similarly, the supply of natural gas had not been universal.

Table 5-28: Tap Water Supply in Shenzhen Special Economic Zone, 1979-1984

Year	Total Population*	Population Served by Tap Water Supply	
		Number	Per cent
1979	71,000**	30,796	43.4
1980	84,057	38,562	45.9
1981	98,337	51,678	52.6
1982	116,571	75,900	65.1
1983	165,040	148,360	89.9
1984	188,356	167,800	89.1

Notes: * Permanent population only; the size of population quoted for 1982 and 1984 is smaller than that provided on p.581 of the Yearbook, but the difference is negligible. ** This figure is obtained from p.581.

Source: *Shenzhen Special Economic Zone Yearbook 1985:513, 581.*

Natural gas supply. In 1983, Shenzhen was only apportioned 15,000 tons of natural gas by the state - a figure only sufficient for 10,000 households (assuming four members in each household). By March 1984, the situation had been improved: over 30,000 tons were provided which met the demand of 20,000 households - 50 per cent of the total.¹⁹

Thus, social facilities were minimal at the onset of the Zone but the Shenzhen authority had been able to improve their supply and access despite the burgeoning demand. Since 1983, the provision of housing, medical services, education, and transport has been superior to that provided in Guangzhou. The ratio of students and teachers and the supply of tap water, however, lagged behind those in the provincial city.

19. Comparison with Guangzhou is impossible as only the supply of gas, but not natural gas, is recorded by the *Guangzhou Yearbook 1985*.

Although it is difficult to compare recreation facilities in the two cities, the limited facilities in Shenzhen were inadequate as most leisure activities either originated from Hong Kong or were related to tourism. As they were concentrated in the more populated districts (Luohu and Shangbu), the catchment areas of hospitals and schools indicate that locations of social facilities were efficient as they minimized travel time. Nevertheless, there is evidence that socio-economic status affected accessibility to social goods. Housing, for instance, was allocated according to bureaucratic ranking or vocational status. Also, Shekou residents were able to purchase their own dwellings at an earlier period owing to higher incomes; better-off residents were subsidized to enable them to acquire their own housing; better transport services were available to those who could afford higher fares; and wider channels of more costly leisure activities were available to those who could afford them. In addition, more qualified technicians and professionals were lured by the provision of spacious housing, priority medical treatment and private transport. Individuals of higher social and economic status, therefore, possessed better access to social goods. Thus, the process of socio-economic stratification accelerated. Nevertheless, the government's ability to provide relatively high standards of social services indicates the viability of the special economic zone policy to improve general living standards.

RESUME

This Chapter has examined the well-being of the Zone's population by focusing on its economic ability and the provision of social goods. Attention has also been devoted to variations engendered by different socio-economic characteristics. Prior to the analysis of the population's economic well-being and the provision of social goods by the government, the demographic structure of Shenzhen was studied to provide a basis for assessing the distribution of economic and social assets. This review highlighted that between 1979 and 1984, rises in income had always been higher than inflation, fostering a real expansion in income. As the population is dominated by the young and economically active group, the rise in income had a greater significance to the general economic well-being of the population than if it is dominated by another group. Also, prior to the wage and price reforms introduced between August and November 1984, the rural population, which only constituted one-fifth of the total population in 1984, enjoyed the highest income in the Zone. In the urban sector, workers and staff of the state-owned institutions and enterprises had enjoyed a general rise in income. In particular, workers in the science and research sector had experienced the greatest growth. By 1984, their income level had escalated from the lowest to the highest. Workers in the commerce and services sector which constituted the largest segment of the workforce in state enterprises and institutions, followed with the second highest income.

The discussion of social goods underlined that the Shenzhen authority has been able to provide services to an expanding population beyond those achieved by Guangzhou, the provincial city. Recreation facilities for indigenous leisure activities were, however, inadequate. Given the large number of in-migrants, the need for ample recreation facilities cannot be overstated as social activities would otherwise be minimal for these newcomers. Generally, the location of social services has followed the pattern of population distribution. Hence, hospitals and schools were concentrated in the most populated districts. Nevertheless, accessibility to the social goods was affected by an individual's income and social status as instanced in the allocation of housing (rent and purchase), access to cheap and efficient transport, exotic leisure facilities, priority medical treatment, and private transport. Population groups which enjoyed better income and higher vocational ranks obviously enjoyed better access to higher quality services. Hence, the differences in accessibility have promoted the process of socio-economic stratification. Peasants residing in the border region and high-ranked technicians and professionals constituted the highest socio-economic groups in the Zone. Despite this socio-economic polarization and the removal of subsidies on basic goods, the performance and incentive-oriented wage reforms and new rural policy ensuing from the general zone policy were able to improve the well-being of the masses.

PART III

CHAPTER 6

SHENZHEN AND CHINA'S MODERNIZATION

The Shenzhen experiment has been designed and implemented as a novel urban and economic endeavour with the ultimate aim of accelerating the speed of China's modernization. It is, however, only after analysing the development of Shenzhen in terms of other processing zones that we can comprehend its potential impact on China's modernization. We have to compare and contrast Shenzhen's development, therefore, against the two divergent views on the ability of export processing zones to 'bootstrap' industrialization: those represented by the United Nations Industrial Development Organization (1980) and Fröbel, Heinrichs and Kreye outlined in *The New International Division of Labour* (1977). The viability of Shenzhen as an effective development strategy will depend upon the extent to which it conforms to these schools of thought and the strength of their underlying rationale when applied to the Chinese case.

Once Shenzhen's role as an export processing zone is understood we can proceed to evaluate the degree to which this large coastal centre has fulfilled its designated function as an 'open city'. In the process, we assess its preliminary contribution to China's modernization. Although the cost of establishing the Zone has been high, the Zone should be able to generate long-term gains to the country. As these effects have just begun to emerge, this final appraisal is focused on the evaluation of Shenzhen's local achievements in the context of the export processing zone phenomenon.

SHENZHEN AND THE EXPORT PROCESSING ZONES

At the end of 1984, the Shenzhen Special Economic Zone had been in existence for less than five years. Given its short official life-span, a full assessment of its performance is premature. Rather than follow the comprehensive evaluation framework devised by UNIDO (1980) and Fröbel and others (1977), attention is concentrated on Shenzhen's objectives, investment incentives, economic performance, and social consequences. Hence, the aims of the assessment are to ascertain major similarities and dissimilarities between Shenzhen and other export processing zones, to evaluate the performance of Shenzhen in the light of the general export processing zone phenomenon, and finally to indicate the ability of the Shenzhen Special Economic Zone to act as a catalyst for industrial development in China. Before the investment incentives can be considered, the Zone's objectives have to be examined.

Objectives

The objectives of the Shenzhen Special Economic Zone include and transcend those of other export processing zones. Apart from pursuing goals common to other zones - gaining foreign capital, foreign earnings, foreign technology, managerial skills and employment expansion - Shenzhen has other targets. It is also destined to: develop into a growth pole; serve as a test-ground for new economic policies; and act as a showplace demonstrating China's openness to capitalist initiatives. These unique objectives have both diversified the types of activities and deepened the importance of the Zone to China.

The planned development of Shenzhen into a large city has necessitated a much wider spectrum of economic activities than that found in other export processing zones. In particular, commerce developed quickly. Shenzhen was designed to develop into a major industrial city according to the *Shenzhen Outline Social and Economic Plan* and *Shenzhen Special Economic Zone Master Outline Plan* published in September 1982. In 1984, however, the authority had to add trade and commerce to the list of approved economic activities at the announcement of the Seventh *Five Year Plan* (1986-1990). It was specified in the Plan that the Zone should develop into an entrepôt handling both national and international trade. Indeed, between 1979 and 1984, commercial activities had accounted for the highest proportion of output and registered the highest employment gain. In 1983 alone, a total amount of Rmb 1,437,000,000 was involved in trade, 80 per cent of which was trans-shipments. Although the relaxation of constraints on commercial activities was a conscious strategy adopted by the government to accumulate capital for development, the designation of Shenzhen Special Economic Zone as a metropolitan city has provided the venue for, and entailed the undertakings of, large-scale commercial activities.

The use of the Zone as a laboratory for understanding and testing either capitalist or hybrid economic policies is unique to China (see reasons for establishing export processing zones cited in Chapter 2). Since 1978, China has been urgently seeking effective measures that can modernize the socialist economy, after almost two decades of isolation. Thus, the export processing enclave has been used to observe, learn and test new economic measures - including those thought to be the preserve of capitalists. In turn, the tried, tested and modified policies will be transplanted to other parts of the country. Hence, the 'pacesetter' function of the Zones has raised their national significance above that of other export processing zones.

The establishment of an export processing zone has been used by the host country

to indicate its long-term commitment to collaborate with foreign companies (UNIDO, 1980). In the case of China, however, the 'showing of the flag' has additional political connotations. By stating that capitalist practices are tolerated, the Zone represented a plan for national unification with the Chinese population of Hong Kong and Taiwan. Further, the creation of a Special Economic Zone close to Hong Kong has been regarded as a strategic and pragmatic step to prepare the Colony for a smooth changeover of government in 1997. These additional political factors amplify the prominence of Shenzhen compared with its counterparts in other parts of the world.

These additional objectives certainly impinge upon the viability of the Special Economic Zones as catalysts for economic development. The encompassing variety of economic activities bedevilled administrators, but enhanced the linkage with the domestic economy - a crucial connection for the transfer of technology. Naturally, the augmentation of the Zone's economic and political significance to the nation requires a stronger commitment by the Central Government to fashion the Zones, particularly the Shenzhen Special Economic Zone, into successful showcases.

Investment Incentives

Among the various investment incentives offered by the Shenzhen authority, the granting of taxation concessions and the rapid progress in infrastructural provisions resembled those provided by other export processing zones. In contrast, the terms specifying capital transfer and labour policy exhibited some minor differences. Further still, the relaxation on the exports to the internal market and the stress on domestic participation in Shenzhen's economy was a major departure from the experiences of other export processing zones. These dissimilarities changed the perception of the Zone's attractiveness in the eyes of potential investors and strengthened its connections with the domestic economy.

Paralleling the regulations on capital transfer in other zones, Shenzhen stipulated no restriction on the repatriation of profits and initial investment. Nevertheless, the inconvertibility of the Chinese Currency aggravated administrative delays in the transfer of capital. The imposition of maximum investment limits - common to most other zones - was, however, removed in Shenzhen. Thus, the financial system impeded some potential clients, but provided more favourable conditions for big investors.

The investors' nominal freedom to hire, fire and penalize employees was a significant concession from a Chinese perspective but it is a common practice in other export processing zones. The inclusion of social security costs in the gross wages was, however, rare in other zones (Fröbel *et al.*, 1977). Nonetheless, the hourly wage in Shenzhen in 1984 was only about US\$0.1 higher than the average wage level in other

zones in 1978 (UNIDO, 1980). Moreover, Shenzhen's wage levels were only about half of those in Hong Kong. Hence, leaving productivity aside, the cheapness of labour was certainly inviting to the small businessmen in Hong Kong, although it might not be particularly attractive to transnational investors.

The most attractive incentive, however, was the ability to sell a portion of the manufactured products to the domestic market - not only Shenzhen but China as a whole. Further, products could be sold internally if they were either manufactured with Chinese equipment and raw materials, or produced with advanced equipment installed by the foreign investors. Irrefutably, overseas capitalists were attracted by the possibility of gaining access to the vast and yet unopened Chinese market through the Special Economic Zones. In turn, the local consumption of products furnished forward linkages between the Zone and the domestic economy.

The promotion of domestic participation in Shenzhen was another device to vitalize the Zone's bondage to the domestic economy. Indeed, the stress on internal participation had already been underlined in the two development plans published in 1982. As indicated in Chapter 4, only 58 per cent of total investment in the Zone was expected to be generated from overseas sources. In contrast, foreign investment predominated in other export processing zones (e.g. 85 per cent in the case of Masan Zone in the Republic of Korea) (UNIDO, 1980). In May 1983, the promotion of domestic investment in Shenzhen was institutionalized with the announcement of the *Interim Regulations on Certain Policies of Recent Domestic Enterprises and Institutions in Shenzhen Special Economic Zone*. These included more generous incentives than those granted to overseas investors. By the same token, joint ventures were much preferred to other forms of investment. Although the presence of a domestic partner might not appeal to a foreign investor, jointly-run activities were yet another avenue of facilitating the transfer of technology.

In summary, the incentives offered by the Shenzhen authority were not more conducive than those offered by other export processing zones to attract foreign investment. By permitting local consumption of products and emphasizing domestic participation, the main advantage of Shenzhen's incentives were that they reinforced the backward and forward linkages between the Zone and the domestic economy. According to UNIDO (1980:37-8), the strengthening of this relationship should result in the Zone fulfilling its catalytic function. The effectiveness of these incentives, however, should be reflected in Shenzhen's economic performance.

Economic Performance

As a guide to Shenzhen's overall success in stimulating economic development, attention is focused initially on its industrial performance. The interest is centred successively on foreign participation and profit, local earnings and balance of payments.

Industrial performance. Capital from overseas sources only accounted for 54 per cent of total investment in the manufacturing sector of Shenzhen - a marked deviation from the experience of other export processing zones. Another dissimilarity was the emphasis on real estate and commerce during the initial years of the Zone's operation, compared with the manufacturing bias of the other processing zones. By 1984, however, manufacturing activities had gained equal significance in terms of output and emerged as the main contributor to employment. Indeed, the pace of industrial development has been satisfactory in terms of planned growth rates, generation of employment and the anticipated number of enterprises and labour productivity. Industrial development, however, had not followed the desired path. Labour-intensive production of consumer goods, especially electronic products, had predominated at the expense of capital-intensive and high technology activities. Nevertheless, industrial production with a low technological content is an all too common feature of export processing zones. Shenzhen's exports, however, appeared extremely low when compared to the virtual total export of products in other zones; they accounted for only 20 per cent of total production in 1984. Nevertheless, 99 per cent of exports originated from foreign-related firms, which were able to sell 72 per cent of their products on the international market. Hence, it was mainly the goods produced by domestic enterprises that were consumed locally. Thus, the general industrial structure and the export performance of goods produced by foreign-related enterprises resembled other zones, albeit products of locally-financed firms were marketed domestically.

The spatial pattern of Shenzhen's industrial development provides more insight into the Zone's manufacturing performance. Due to the establishment of ten discrete industrial districts established within the Zone, development had not been evenly distributed. Among the three most developed industrial estates, Shangbu has spearheaded the electronics industry based primarily on domestic capital and market, whereas Shahe has managed to import advanced equipment. Shekou, under the efficient management of the Hong Kong-based China Merchant Steam Navigation Company, has developed a wide industrial base, underpinned by foreign investment. Shekou also exported 70 per cent of its total production in 1984; its foreign investment occurred in joint ventures with domestic enterprises. Paradoxically, its linkage with the domestic economy was, therefore, stronger than that of other zones. Further, heavy industry accounted for at least 47 per cent of the total number of industrial projects in 1984 - a

feature most uncharacteristic of export processing zones (Table 4.12). Thus, although the general industrial structure of Shenzhen complemented that of other export processing zones, its pioneering Shekou Industrial Estate surpassed the achievements of other zones (see Appendix IV for the main factors leading to Shekou's success).

Foreign participation and profits. Between 1979 and 1984, Shenzhen was mainly engaged in infrastructural construction. Therefore, it was only able to attract 20 per cent of its development capital from overseas. Nevertheless, in contrast to other export processing zones, more than one-quarter of Shenzhen's construction capital was derived from foreign sources. Further, the flow of foreign investment to the Zone had been increasing steadily, and the boost in 1984 probably signified an upsurge in the Zone's consumption of overseas capital. By 1984, however, more than four-fifths of its foreign investment had originated from Hong Kong. Thus, although Shenzhen's absorption of foreign capital had been rapid, it has been derived almost exclusively from one source. Since the planned target for foreign investment was only 58 per cent of total capital in Shenzhen, the participation of foreign investment was expected to be lower than in other zones.

Further, foreign investment projects had mainly been in the form of joint ventures and co-operative activities (over three-fifths of total investment in 1984) (*Shenzhen Special Economic Zone Yearbook 1985*: 95). Unlike other zones, the domestic sector in Shenzhen was strongly linked to the foreign firms. As noted, these forms of joint activities require the active participation of the Chinese partners and, in the case of co-operative production arrangements, all equipment rights are transferred to China at the expiry date of the contracts. Thus, a favourable condition for the transfer of technology was formulated.

Similar to other zones, foreign capital has mainly been used in the industrial sector. Nevertheless, the mere 44 per cent share is low compared to the predominantly industrial use of overseas capital in other zones. Also, compared to their exclusive export of manufactured products, the export of 72 per cent of goods produced by foreign-related firms in Shenzhen is unimpressive. As well, these firms only provided 12 per cent of the Zone's total employment in 1984. Hence, foreign participation in industry, exports and employment is relatively low, particularly in employment.

Nevertheless, most of the firms were able to make a profit. The Shenzhen authority claimed that more than four-fifths of the foreign-related enterprises had averaged profits above 14 per cent between 1982 and 1984. The annual rate, however, had declined from 18 per cent in 1982 to 12 per cent in 1984. Further, tourist ventures, rather than manufacturing, were the most profitable (16 per cent). Between 1982 and 1984, a total profit of Rmb 196,660,000 was generated. Only a quarter of the amount,

however, represented dividends from industrial activities. Compared with the profit rate of foreign companies operating in other export processing zones (e.g. 40 per cent in the Philippines), however, the profit rate was not particularly high (Fröbel *et al.*, 1977:382).

Local earnings. As noted, the Zone had suffered from an overall deficit of Rmb 662,010,800 by the end of 1984, even after taking into account all forms of income, including the profits of domestic investors. Hence, the 15 per cent profit target for investment in a zone had not been met. Similarly, the balance of external payments on current account had been in deficit.

Balance of external payments. As with other processing zones, Shenzhen was designed by the authorities to improve the structure of the balance of external payments. Contrary to this intention, trade deficits have resulted in the Zone from high imports and the low export content of the domestic-related firms. Thus, the Zone has been used by local investors to obtain foreign raw materials and commodities to produce goods for internal consumption.

Hence, the economic performance of Shenzhen has resembled that of other zones in terms of having a low level of technology, the bulk of manufactured exports produced by foreign-related firms, and the mass of foreign investment involved in manufacture. Nevertheless, Shenzhen has not surpassed other export processing zones except for the dominance of joint ventures. The foreign component, however, has been unable to offset the adverse results produced by the domestic sector. Further, the participation of foreign investment in Shenzhen was not as strong as in other zones - as reflected by its relatively low share in development capital, industry, export and employment. As well, the sources of foreign investment have been 'shallow' in that they have been mainly focused on Hong Kong - an economy conspicuous for the absence of high technology. Nevertheless, the achievement of the Shekou Industrial Zone was notable. It had diversified its industrial structure and strengthened its linkages with the domestic economy through the establishment of joint ventures. Consequently, it has outstripped the performance of other zones. Indeed, Shenzhen's success hinged on Shekou - the model for the rest of the Zone. Success, however, should not be judged solely on economic performance - the transformation of social conditions is equally important to a socialist regime. Hence, attention is focused on the Zone's social conditions.

Social Consequences

The inception of the special economic zone policy permeated all aspects of life in Shenzhen. Attention, however, is focused on the three issues most pertinent to the general export processing zone debate: the question of human resources; the economic well-being of workers; and the provision of social goods. As human resources are fundamental to Shenzhen's operation, they will be considered first.

Human resources. The heavy drain of skilled people from other parts of China to Shenzhen was obvious from the outset. Between 1979 and 1984 over 114,210 people migrated to the Zone - 93 per cent of its growth in total population. Unlike other export processing zones, however, in-migrants were not only recruited from the surrounding rural area, but from all parts of China (even as far as Liaoning in the north-east). Further, demographic changes demonstrate that recruitment has focused on drawing educated and skilled male urbanites from the economically-active age groups. This bias was evident in the incentives offered to this particular cohort. Consequently, the education level in Shenzhen was substantially higher than that in the Guangdong province and the country as a whole. This large-scale transfer of human resources has adversely affected the development potential of the source regions. Although temporary residents may take back innovative skills as they return, the transfer would be minimal at this early stage. Trained labour was a particularly scarce resource in China in view of the stagnation in education - a reflection of the political upheaval in the past thirty years, particularly during the campaign of the Cultural Revolution.

There are no specific data on industrial workers in the Zone. Broad generalizations, therefore, cannot be made. Nevertheless, the Shenzhen Zone was notable for the high proportion of male employees. Admittedly, females predominated in manufacturing whereas males were more prominent in other sectors. The male orientation, however, did little to assuage the strains on marriages that were common to the preponderant female employee of the non-Chinese export processing zones. As only 12 per cent of Shenzhen's workforce was employed in foreign-related firms, there was less job insecurity compared with its overseas counterparts.

The working conditions of industrial labourers, as summarized from the *Provincial Regulations of the Special Economic Zones in Guangdong Province on Labour Management and Wages in Enterprises*, appeared to be better than that of other zones. Although the forty-eight working hours scheme was general, the Chinese workers enjoyed more legal holidays, better job security, better working conditions, insurance and care for female workers. Indeed, the 'social labour insurance' policy, implemented in 1982 and 1983, was comprehensive. It covered retirement pensions, medical expenses, burial costs, condolence funds for the families of the deceased, and living allowance to the needy unemployed; the most attractive feature, however, was the high wage level.

Economic well-being. In 1982, Shenzhen's wage level was 50 per cent higher than the national average. Although the inflation rate was high and subsidies on some basic goods had been withdrawn, real income rose at an average rate of 14 per cent between 1979 and 1984. Within Shenzhen, the Government was also able to stabilize wage levels between sectors, though it was particularly committed to raising that of the

science and research sector above others, a reflection of its stress on the value of skilled workers. Paradoxically, however, the rural sector was found to have the highest income level. On the whole, Shenzhen's population was paid sufficiently high wages to meet daily needs. In fact, they were able to raise their standard of living. Indeed, the ratio of basic living costs to wages had dropped from 0.6 in 1979 to 0.4 in 1984. Thus, tertiary and luxury goods were commonly consumed.

A crucial factor contributing to the wage rise was the introduction of a more flexible, incentive-oriented wage policy spearheaded by the foreign-related firms. The transfer of management skills from foreign investors to the socialist enterprises and administration, was indeed an important part of the Shenzhen experiment. These management skills also infiltrated the provision of social services.

Provision of social services. The performance-oriented labour policy has quickened the construction of public buildings such as houses, education institutions and medical facilities. More relaxed management practices have also allowed the diversification of means of transport. Although the construction of recreational facilities still fell behind the demand - a reflection of its perceived secondary importance - the general provision of social services was of a relatively high standard.

Two noteworthy features relating to social services had emerged: the influence of socio-economic status on the accessibility to social goods; and the priority given to education. Clearly, population groups enjoying better income and higher vocational ranks also possessed better access to higher quality services. Thus, polarization has been occurring. Stress has been given to the construction of education facilities - primary and secondary schools, vocational schools and tertiary institutions. Given the range of training courses run by various research institutes, government bodies and individual enterprises, Shenzhen has made an effort to upgrade its labour force. The incentives offered to skilled workers and the priority given to the educational sector demonstrated the government's clear commitment to providing the conditions necessary for the transfer of technology so that a strong technological base can be developed in Shenzhen. Such a strategy, however, has been largely at the expense of skilled manpower in other parts of China.

Compared with other export processing zones, therefore, the achievement of Shenzhen Special Economic Zone is mixed. As yet, Shenzhen has not been able to fulfil its more immediate goals - the generation of a favourable balance of payments on current account and the recuperation of the cost of infrastructural provision. Shenzhen, however, has laid the foundation for long-term gains by strengthening its linkages with the internal economy through large-scale commercial activities and joint enterprises, the promotion of domestic investment, and permitting the local consumption of products. It

has also paved the way for the transfer of technology by upgrading the skill and education level of the labour force. The participation of sole proprietors in Shenzhen's economy, however, needs to be regulated. Although it strengthened the Zone's linkages with the host economy and permitted the multiplier effects to occur, the preoccupation with the domestic economy has defeated the purpose of establishing an externally oriented economy in Shenzhen. Rather than using the Zone as an export base, the relaxation of customs policy has been manipulated by domestic investors to import foreign goods and raw materials. Their subsequent inability to export the manufactured goods had, therefore, caused a marked deficit in the current account of the balance of payments. Nonetheless, the successful case of Shekou indicates the tendency for, and the possibility of, Shenzhen developing into a sophisticated industrial zone with a marked dependence on exports. The social consequences represented other achievements. Due to the reforms in labour and management policies, real wages rose continuously and demands for social services were rapidly met. The living standards were therefore raised above the provincial level. The changes in management were, in fact, a kind of technological transfer. The viability of the Shenzhen Special Economic Zone as an industrialized base, however, has to be considered in the context of the export processing zone debate epitomized in the 1980 working paper of UNIDO and the pertinent chapters in *The New International Division of Labour* written by Fröbel, Heinrichs, and Kreye in 1977.

Shenzhen and the Export Processing Zone Debate

Similar to the situation of other zones, as described by Fröbel and others, Shenzhen has not provided financial returns on investment in the Zone as yet. Going beyond Fröbel and others, however, the Zone has exerted an adverse effect on the current account of the balance of payments. More management experience, however, would mitigate this adverse effect. Indeed, Shenzhen had only operated for five years by 1984, whereas the more successful zones of Kaosiung in Taiwan and Masan in Korea had been run for eighteen and thirteen years respectively. Indeed, Shenzhen cannot be expected to mature within such a short period. After five years, Shenzhen had gained, or paved the way for, longer term achievements. These have been the strong linkages established with the domestic economy, the introduction and transfer of management skills, and the trend towards more sophisticated industrial production. The ensuing social consequences have been favourable. The improved living standards of the Zone's population and the rural sector in particular, contradicted Fröbel and others' contentions that workers could not meet their daily needs and the rural population suffered from the construction of an export processing zone in its region. On the contrary, the economic and social conditions of Shenzhen's population matched the

description of UNIDO. Further, the Organization has stressed that the adoption of a general outward-looking policy is essential to the success of the zones. Hence, China's continual pursuit of its 'open door' policy, and specifically, the opening of fourteen coastal cities and Hainan Island, should provide a more conducive environment for Shenzhen. If the Chinese Government has to fashion Shenzhen into a successful avenue because of the Zone's political and experimental significance, it has to commit itself to reducing domestic investment to an appropriate level and controlling its form of operation, tightening the restrictions on imports of raw materials and goods, and exporting the products produced by domestic firms. When these objectives have been achieved, it will then be possible for China to recoup its capital investment in the Zone. Further, when the multiplier effects take full force, Shenzhen will be able to send skilled and semi-skilled human resources to other parts of the country. If these goals are achieved, Shenzhen would be seen as an effective development strategy.

SHENZHEN AND CHINA'S URBANIZATION AND ECONOMIC POLICIES

As the Special Economic Zones, particularly Shenzhen, bear the national goals of propelling China towards modernization, it is important to evaluate their performance and potential in the context of China's modernization policies. As canvassed in Chapter 1, the creation of Special Economic Zones was an outcome of the revived economic policy based on foreign investment and high technology. In particular, the creation of the Shenzhen Special Economic Zone, a *de facto* international city located in the coastal region, was a product of the current urbanization policy which emphasized a 'shift-back to the cities and coast'. Hence, the performance of Shenzhen has to be appraised in the light of the urban and economic roles entrusted to it. Before the function of Shenzhen can be examined against the new economic policy, it is necessary to analyse its contribution to urbanization.

Shenzhen and the 'New' Urbanization Policy

As discussed in Chapter 1, coastal cities - and Shenzhen in particular - were expected to establish international relations, to import foreign capital, and to absorb foreign technology. Further, the establishment of Shenzhen exemplified the dominance of the camp that emphasizes the construction of medium and large cities as the precondition for generating a spatially-integrated urban pattern and an overall reduction of rural-urban divergence. Hence, apart from its general commercial service to the hinterland as a city, Shenzhen should also generate 'growth pole' impacts into the interior. This raises the critical question: does this strategy contrast China's urban policy of creating 'productive' (as compared to consuming) cities? In resolving this

question, attention is focused on Shenzhen's international relations; its 'growth pole' effects; and its industrial characteristics.

International relations. As a result of the 'open door' economic policy, the cities, especially the coastal ones, have been urged to expand international relations. This mission is obvious in Shenzhen's case. In fact, the choice of Shenzhen was mainly based on its connections with the overseas Chinese. Indeed, foreign investment in the Zone has largely stemmed from Hong Kong. Nevertheless, the electronics and textile industries of Hong Kong are mainly labour-intensive production. High technology was not obtainable through the Hong Kong connection. Managerial skills, however, have filtered to the Zone from Hong Kong - an economy which rewards economic efficiency. Access to, and knowledge of, international markets were also obtainable by the Chinese through the operation of joint ventures. Thus, Shenzhen's international connections were largely established through the ties with its neighbour, the metropolitan city of Hong Kong. In contrast, the 'growth pole' effects of Shenzhen have been more diversified.

Growth pole effects. The growth pole effects of Shenzhen can be broadly divided into three categories - production technology, managerial skills and financial support. Due to the low technological level of production in Shenzhen, technological transfer was still premature. Nevertheless, as noted, some preconditions for importing higher technology have been realized. Indeed, the transfer has been effected in Shekou owing to the dominant practice of joint ventures.

The transfer of management skills was more substantial. As noted, wage reforms, rural reforms, and management reforms in construction had all produced positive effects in Shenzhen. Their success can certainly be copied, though the reforms may have to be modified before being transplanted elsewhere. Indeed, it has been reported that the filtering of management skills to the interior has occurred (Liu and Liang, 1985). Thus, the transfer of management skills to other parts of the country was reportedly one of the most immediate effects of the establishment of Shenzhen.

In great contrast, no financial support could be directly generated by the Zone to facilitate the development of other regions. In fact, it has drawn capital from the Central Government, the state banks, and various state enterprises to finance infrastructural construction. A total sum of Rmb 5,802,020,000 had been invested in the Zone. The slow accrual of profits by the Zone authority reduced the returns on capital. This capital represented a high opportunity cost to the potential development of other regions in China. As well, Shenzhen was granted the privilege of retaining all revenue until 1985 to assist its operation. Until then, the state would not have been able to benefit financially from the Zone. However, indirect means of creating profit for other

regions has occurred. As the Zone was also opened for domestic investment, domestic enterprises were able to make profits through their operation in the Zone. Reportedly, a total profit of Rmb 70,000,000 was derived in 1984. As yet, the greatest achievement of Shenzhen lies in its ability to develop industry as the main sector at the end of 1984.

An industrial city. As the experiment of Shenzhen exemplifies China's new urbanization policy, it is necessary to ascertain whether the city has been planned and developed in a manner conforming with China's overall emphases on establishing 'productive' cities. As noted, Shenzhen was planned to be 'productive' by being developed into a major industrialized city. Commercial activities, however, flourished quickly because of the relaxed import policy and the need of the local government to accumulate the necessary development capital through trading. Hence in the initial four years of development (1979-1983), commercial activities, both in terms of transaction value and employment, have dominated the economy. By 1984, however, industrial output matched the value of commercial transactions, and industrial employment dominated the workforce. Thus, Shenzhen can be considered a 'productive' city, on present evidence.

Further, Shenzhen was successful in reducing the rural-urban difference within the Zone. In fact, rural reforms were so successful that between 1979 and 1983, peasants constituted the highest income group in Shenzhen. Rural activities in Shenzhen were also commercialized and industrialized, producing a rural living standard comparable to, and in places higher than, the urban sector. Shenzhen, therefore, will not jeopardize the overall emphasis of China's urbanization policy in the long run. Having examined the present and potential roles played by Shenzhen in China's urbanization, we can proceed to investigate the function of Shenzhen in the broader economic scene.

Shenzhen and Economic Policy

The economic policies which are related to the Shenzhen experiment can be classified into two groups: those pertinent to foreign economic policies - international trade, acquisition of foreign technology and foreign investment; and those relating to the domestic economic policies inherent in its test-ground function - wage policy and agricultural policy. The creation of the Shenzhen Special Economic Zone can be regarded as a concentration of efforts over a geographical locality to pursue the desired goals pertinent to these specified policies. As Shenzhen's main emphasis has been placed on external economic relations, its contribution to foreign economic policy will be evaluated ahead of the domestic economic policies.

Foreign economic policies. An important component of the post-1976 foreign economic policy was the opening of China to international trade. Although imports

were limited to those needed by the country, a commensurate expansion of exports was necessary to earn foreign exchange to pay for them. Hence, export bases, including the Special Economic Zones, were set up to manufacture goods for sale in the overseas market. Shenzhen did not achieve this goal. While the small-scale export of local goods was negligible in the national context, the massive inflow of foreign goods has accounted for 3.3 per cent and 3.6 per cent of the country's imports in 1983 and 1984 respectively. The opening of the internal market, the relaxation of customs policy, and the retention of a portion of profits in foreign exchange by indigenous enterprises, though perceived as a necessary strategy to entice initial foreign investment and technology, has nevertheless fostered massive imports. However, the loss of foreign earnings and exchange has been staggering. As economic crimes were rampant, official deficits represented but a proportion of the foreign exchange lost through Shenzhen (*The Nineties*, December 1985:55-7). Although the great loss (estimated to be between US\$4,000,000,000 to US\$6,500,000,000) in the national foreign exchange reserve in late 1984 and early 1985 was mainly due to the shortfalls of China's general foreign exchange policy, it has been alleged that a major proportion of the loss was fostered by the illegal or semi-illegal trade transactions in Shenzhen (*The Nineties*, July 1985). Hence, in contradiction to the objective of improving the national balance of payments, Shenzhen had greatly undermined it. Although this may be regarded as a 'teething problem', it calls for a serious tightening of administrative and commercial policies. Indeed, in the long term, the Shenzhen Government has to decide on the extent to which the internal market should be opened to lure investment - foreign as well as domestic - and enhance the Zone's forward linkages with the domestic market. In other words, the 'international city' function of Shenzhen - trading and attracting capital - has to be prudently implemented. The growth pole effects achieved through the Zone's strong linkage with the host economy have also to be weighed against the degree of foreign-orientation that is desired by the state.

The filtering of foreign technology by Shenzhen was most successful in the transferring of management skills. Thus, Shenzhen has been fulfilling its role as a test-ground. And yet, management is only one form of 'technology' that the Chinese Government desires to acquire through Shenzhen. The introduction of other forms of foreign technology (e.g. sophisticated industrial production) has been minimal. Although Shenzhen had been able to lay the conditions for future absorption of industrial production of a higher technology content, Hong Kong investment will have to be replaced by another source to realize this goal. In terms of quantity, progress in the absorption of foreign investment was also far from meeting the target set for the year 2000. In the national context, foreign investment expended in the Zone only occupied 3 per cent of the total volume of foreign capital channelled into the country between 1979

and 1984. A portion of this capital might still have been committed to the country even if the Zone was not created. Nonetheless, Shenzhen's share in the country's foreign capital imports has expanded from 6 per cent in 1983 to 8 per cent in 1984 (*1985 Almanac of China's Foreign Economic Relations and Trade*:1066; *Shenzhen Special Economic Zone Yearbook 1985*:599). The dominant practice of joint ventures and co-operative production arrangements has also facilitated the acquisition of technology at the lowest import costs and minimum use of foreign exchange.

Domestic economic policies. Domestically, Shenzhen was able to introduce more positive effects upon the country. As noted, the most advanced wage reforms were practised in all enterprises and institutions (including Communist Party Organizations). The effectiveness of these policies, as exemplified by the efficient construction of social facilities, had testified to the importance of performance-oriented management for productivity. As well, the 'Shekou model' has demonstrated the importance of efficient management in economic development. Also, the successful introduction of commercial and industrial activities and the diversification and specialization of farming activities had confirmed the direction of agricultural reforms recently undertaken by the country. Nevertheless, similar to the rest of the country, these reforms have engendered socio-economic polarization. This occurrence points to the loss of some of the socialist tenets (such as egalitarianism and the pursuit of a classless society), at least temporarily. The change, though undesirable, is an inevitable consequence of introducing an incentive-oriented management strategy.

RESUME

This Chapter has attempted to evaluate the contribution of the Shenzhen Special Economic Zone to China's current drive for modernization. The assessment, owing to the recency of its inception, has focused on the viability of Shenzhen as an export processing zone to induce industrialization. Nevertheless, a preliminary report has been made to estimate its performance as a large coastal city and its contribution to the current economic endeavour as an externally-oriented city.

Shenzhen's potential to induce industrialization has been ascertained, through an examination of its major similarities and dissimilarities with other export processing zones, and the interpretation of its development in the context of the export processing zone experience. Although Shenzhen has not made a financial return to the country's investment in the Zone and it had strained the national reserve of foreign exchange, the inexperience of Shenzhen's administration and the short span of operation have to be considered. Indeed, Shenzhen had gained, or prepared for, longer-term achievements, which are most evident in its strong domestic linkages and the emphasis and priority

given to education and skilled labourers. Given the country's continuing adherence to the 'open door' policy, the Zone's potentials are reinforced. Further, its pacesetter, the Shekou Industrial Zone has moved onto more sophisticated production. Socially, Shenzhen has had positive effects on the population's well-being. Nonetheless, judging from the immense amounts of capital and manpower invested in the Zone by the state and the loss of foreign exchange through the Zone, the achievements of Shenzhen have been expensive. As yet, the Zone has not been able to facilitate China's rapid modernization.

Nevertheless, some positive 'growth pole' effects have occurred, the most notable being the transfer of management skills. Also, Shenzhen's role as an international city has provided a venue for the interaction between domestic and foreign investors. Strong ties have been developed with Hong Kong. These ties, though inevitable and convenient during this initial stage, have impeded the development of the Zone's connections with the technologically more advanced countries. Despite the novel nature of the Shenzhen experiment, the city has still complied with the country's general urbanization policy of constructing a 'productive' city and reducing urban-rural differences.

Ultimately, the Zone's major contribution to China's current economic endeavour had been as a test-bed for observing, learning and testing foreign management strategies, and filtering the experience to the rest of the country. These management skills have been most applicable to the country's agricultural and labour policies. Yet, the amount of foreign investment imported to the Zone was insignificant. The transfer of production technology and the creation of foreign earnings through expanded international trade were also to be realized. With a strong commitment to curbing illegal commercial activities, a continuance of the high technology and expertise-oriented bias, and an appropriate regulation of imports and exports, Shenzhen should be able to succeed as an effective measure to induce industrialization in China.

CONCLUSION

Shenzhen has been transformed from a desolate border town to a new modern city. It has established an investment environment of a particular standard; it has explored the ways for opening [China to the outside world] and [paved the way for] reforms (Liu Guoguang, *Renmin Ribao*, 12 August 1985).

This study has evaluated the economic performance and social conditions of Shenzhen. While Shenzhen's contribution to date has been minimal and negative, this study has shown that it has the potential in the longer term to induce industrialization in China. Although the objectives of the Shenzhen Special Economic Zone, both stated and unstated, are rooted in China's development history, its performance and potential have to be interpreted with reference to similar global phenomena - the export processing zones. Before examining the contribution of this thesis to the special economic zone debate, the achievements of Shenzhen in fulfilling its short-term and long-term goals have to be summarized.

Short-term goals. Shenzhen's prime aim of developing industry as the main economic sector had been met by 1984. The level of production, however, fell short of the ambitious goal of developing a manufacturing base that used high technology. Also, an externally-oriented economy has yet to be established in Shenzhen. Most products from foreign-related firms are exported. The high import and low export content of their domestic counterparts, however, has produced massive trade deficits. Overseas investment has only contributed to one-fifth of total development capital, and 12 per cent of zonal employment. Investment in the Zone by the Chinese Government has been unprofitable. Nevertheless, social conditions have been improved. Real incomes have soared and demands for social services has been met with unaccustomed speed. Indeed, the provision of social services have reached an enviable standard in Shenzhen. Yet, socio-economic polarization has been engendered.

The low level of technology in Shenzhen's industry echoed that of the assembly-lines in other export processing zones. Shenzhen's inability to develop an externally-induced economy comparable to that of other zones has been attributed to its short life and stress given to domestic investment. Only the export performance of the foreign sector resembled that of other zones. Government investment in the Zone has

not been recuperated - a failure also attributed to the Zone's short life-span. Nevertheless, an improvement in living standards was a recurrent feature of most export processing zones. Thus, the difference between Shenzhen and its overseas counterparts stemmed primarily from the recency of its inception. A secondary factor, however, has been the dominance of domestic investment which did little to boost exports - the Zone, therefore, fell short of being fully-integrated into the world economy.

Long-term goals. The long-term transfer of technology to the rest of the country has been limited to the transmission of management skills. Indeed, the twin objectives of simultaneously importing foreign capital and technology to help modernize the country were far from realization. Nevertheless, Shenzhen's function as a test-ground for observing, learning and experimenting with hybrid economic measures have been fulfilled. Also, conditions have been established for longer-term achievements, as evidenced in the strong domestic linkages, the emphasis and priority given to upgrading the labour force, and the adoption of a general outward-looking policy by China. Indeed, the successful case of Shekou has provided a model to show how Shenzhen as a whole could enhance industrial development in China.

Contribution to the special economic zone debate. This study has broken new ground by assessing the development of Shenzhen within the context of the general export processing zone phenomena. As highlighted by the opponents of Special Economic Zones, the Shenzhen experiment has been costly. This judgement, however, may be premature as a five year time-span is too short to weigh up the costs and benefits of the special economic zone policy. Rather than making hasty judgements on the pros and cons of Shenzhen, it is more pertinent to gauge its structure and performance against similar development elsewhere. Arguments derived by the Zone's proponents that some initial achievements have been generated by Shenzhen are, therefore, insufficient. Hence, this study has gone further to include the export processing zone experience and demonstrated that it will provide a springboard for future industrial development. This study has also examined the oft-neglected social impacts in some detail by directing attention to the Zone's undeniable achievements in improving the 'well-being' of the people - the ultimate goal of socialist modernization.

This study, however, has left some tasks unfulfilled. At best, it is a premature assessment of Shenzhen and the special economic zone policy. Hence, a continuing research program is required to monitor the Zone's progress towards meeting the short-term and long-term goals. Before gauging the Zone's longer term impacts on China, we will have to wait until it becomes fully mature. Meanwhile, in-depth studies on specific aspects of the Zone need to be undertaken. These could investigate the influence of domestic demands for imported consumer goods on Shenzhen's trade, the

impact of the country's foreign exchange control on the Zone's price and trade policies, the evolution of its industrial policies, changing work ethics and life style of local residents, and the comparative advantages of Shenzhen to other large coastal cities. Thus, this thesis is merely an initial assessment of a policy that promises to change the industrial and urban face of China.

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Appendix I

REGULATIONS ON SPECIAL ECONOMIC ZONES IN GUANGDONG PROVINCE

Chapter I - General Principles

Article 1. Certain areas are delineated from the three cities of Shenzhen, Zhuhai and Shantou in Guangdong Province to form Special Economic Zones (hereinafter referred to as Special Zones) in order to develop external economic cooperation and technical exchanges and promote the socialist modernization program. In the Special Zones, foreign citizens, overseas Chinese, compatriots in Hong Kong and Macao and their companies and enterprises (hereinafter referred to as investors) are encouraged to open factories or set up enterprises and other establishments with their own investment or undertake joint ventures with Chinese investment, and their assets, due profits and other legitimate rights and interests are legally protected.

Article 2. Enterprises and individuals in the Special Zones must abide by the laws, decrees and related regulations of the People's Republic of China. Where there are specific provisions contained in the present regulations, they have to be observed as stipulated herewith.

Article 3. A Guangdong Provincial Administration of Special Economic Zones is set up to exercise unified management of the Special Zones on behalf of the Guangdong Provincial People's Government.

Article 4. In the Special Zones, investors are offered a wide scope of operation, favourable conditions for such operation are created, and stable business sites are guaranteed. All items of industry, agriculture, livestock breeding, fish breeding and poultry farming, tourism, housing and construction, research and manufacture involving high technologies and techniques that have positive significance in international economic cooperation and technical exchanges, as well as other trades of common interest to investors and the Chinese side, can be established with foreign investment or in joint venture with Chinese investment.

Article 5. Land-levelling projects and various public utilities in the Special Zones such as water supply, drainage, power supply, roads, wharves, communications and warehouses, are undertaken by the Guangdong Provincial Administration of Special

Economic Zones. When necessary, foreign capital participation in their development can be considered.

Article 6. Specialists at home and abroad and personages who are enthusiastic about China's modernization program will be invited by each of the Special Zones to form an advisory board as a consultative body for the Special Zone.

Chapter II - Registration and Operation

Article 7. Investors wishing to open factories or take up various economic undertakings with investment should apply to the Guangdong Provincial Administration of the Special Economic Zones, and will be issued licenses of registry and use of land after examination and approval.

Article 8. Investors can open accounts and deal with matters related to foreign exchange in the Bank of China in the Special Zones or other banks set up in the Special Zones with China's approval.

Investors can apply for insurance policies at the People's Insurance Company of China in the Special Zones and other insurance companies set up in the Special Zones with China's approval.

Article 9. Products of the enterprises in the Special Zones are to be sold on the international market. If an enterprise wants to sell its products in the domestic market in China, it must have the approval of the Guangdong Provincial Administration of Special Economic Zones and pay customs duties.

Article 10. Investors can operate their enterprises independently in the Special Zones and employ foreign personnel for technical and administrative work.

Article 11. If investors want to terminate their business in the Special Zones, they should submit the reasons for their termination to the Guangdong Provincial Administration of Special Economic Zones, go through related procedures and clear the debts. The assets of the closed enterprises can be transferred and the funds can be remitted out of China.

Chapter III - Preferential Treatment

Article 12. The land in the Special Zones remains the property of the People's Republic of China. Land to be used by investors will be provided according to the actual needs, and the length of tenure, rent and method of payment will be given favourable consideration according to the different trades and uses. Concrete methods will be specified separately.

Article 13. Machinery, spare parts, raw materials, vehicles and other means of production for the enterprises in the Special Zones are exempted from import duties. The necessary consumer goods shall be subjected to full or lower import duties or exempted, depending on the merits of each case. Imports of the above-mentioned goods and exports of products of the Special Zones must go through existing customs procedures.

Article 14. The rate of income tax levied on the enterprises in the Special Zones is to be 15 per cent. Special preferential treatment will be given to enterprises established within two years of the promulgation of these regulations, enterprises with an investment of US\$5 million or more, and enterprises involving higher technologies or having a longer cycle of capital turnover.

Article 15. Legitimate after-tax profits of the investors, salaries and other proper earnings after paying personal income tax of the foreign, overseas Chinese and Hong Kong and Macao workers and staff members of the enterprises in the Special Zones can be remitted out of China through the Bank of China or other banks in the Special Zones in line with the Zone's foreign exchange control measures.

Article 16. Investors who reinvest their profits in the Special Zones for five years and longer may apply for exemption of income tax on profits from such reinvestment.

Article 17. Enterprises in the Special Zones are encouraged to use China-made machinery, raw materials and other goods. Preferential prices will be offered on the basis of the export prices of China's similar commodities and settled in foreign exchange. These products and materials can be shipped direct to the Special Zones with the vouchers of the selling units.

Article 18. Entry and exit procedures will be simplified and convenience offered to the foreigners, overseas Chinese and compatriots in Hong Kong and Macao going in and out of the Special Zones.

Chapter IV - Labour Management

Article 19. Labour service companies are to be set up in each of the Special Zones. Chinese staff members and workers to be employed by enterprises in the Special Zones are to be recommended by the local labour service companies or recruited by the investors with the consent of the Guangdong Provincial Administration of Special Economic Zones. Enterprises can test them before employment and sign labour contracts with them.

Article 20. The employees of the enterprises in the Special Zones are to be managed by the enterprises according to their business requirements, and if necessary, can be dismissed in line with the provisions of the labour contracts.

Employees of the enterprises in the Special Zones can submit resignation to their enterprises according to the provisions of the labour contracts.

Article 21. Scales and forms of the wages, award methods, labour insurance and various state subsidies of the Chinese staff members and workers in the enterprises are to be included in the contracts signed between the enterprises and the employees in accordance with the stipulations of the Guangdong Provincial Administration of Special Economic Zones in Guangdong Province.

Article 22. Enterprises in the Special Zones should have the necessary measures for labour protection to ensure that the staff members and workers work in safe and hygienic conditions.

Chapter V - Administration

Article 23. The Guangdong Provincial Administration of the Special Economic Zones exercises the following functions:

1. Draw up development plans for the Special Zones and organize for their implementation.
2. Examine and approve investment projects of investors in the Special Zones.
3. Deal with the registration of industrial and commercial enterprises in the Special Zones and with land allotment.
4. Coordinate the working relations among the banking, insurance, taxation, customs, frontier inspection, postal and telecommunications and other organizations in the Special Zones.
5. Provide staff members and workers needed by the enterprises in the Special Zones and protect the legitimate rights and interests of these staff members and workers.
6. Run education, cultural, health and other public welfare facilities in the Special Zones.
7. Maintain law and order in the Special Zones and protect according to law the persons and properties in the Special Zones from encroachment.

Article 24. The Shenzhen Special Zone is under the direct jurisdiction of the Guangdong Provincial Administration of Special Economic Zones. Necessary agencies are to be set up in the Zhuhai and Shantou Special Zones.

Article 25. A Guangdong Provincial Special Economic Zones Development Company is to be set up to cope with the economic activities in the Special Zones. Its scope of business includes fund-raising and trust investment, operating enterprises or

joint ventures with investors in the Special Zones, acting as agents for the investors in the Special Zones in matters related to sales and purchases with other parts of China outside the Special Zones, and providing services for business talks.

Chapter VI - Appendix

Article 26. These regulations shall be enforced after their adoption by the Guangdong Provincial People's Congress and after they have been submitted to and approved by the Standing Committee of the National People's Congress of the People's Republic of China.

Appendix II

A CRITICAL REVIEW OF THE THREE STRANDS OF SPECIAL ECONOMIC ZONE LITERATURE

PRELIMINARY STUDIES

As exemplified by Zheng Zhuyuan's (1981) study of the future development and Wong Kwan Yiu's (ed.) (1982) examination of the implication of the development of Shenzhen on China, Hong Kong and Shenzhen itself, some of these preliminary studies include initial analysis. This characteristic was also a feature of He Li's (1982) consideration of development problems and Zhang Rongfeng's (1983) study of the economic effects of the Zones on China now and in the future. Indeed, these preliminary studies exhibit many parallels but, as Table 3.1 shows, each makes a distinctive contribution to our understanding of the Zones.

Zheng's (1981) study, for instance, was narrowly based on planning and development problems (Table 3.1). As the first study on the future of the Zones, it pinpointed differences between their economic systems and that prevailing in other parts of China. Although the writer has succinctly outlined the characteristics and problems of the Zones during the experimental period, he left their future open-ended.

He's (1982) paper, not only covered planning and development problems, but examined the nature of the economy and administrative problems (Table 3.1). Although He provides a more detailed account of the formation of the Shenzhen Zone, the major emphasis was on its initial development problems. Five case studies are given to bring out the clumsy and complicated nature of the bureaucratic system. The author was also in a quandary about the ideological explanations of the development of the Zones offered by Chinese theorists.

The collective work of Wong and others (1982), *Shenzhen Special Economic Zone: China's Experiment in Modernization* was the most comprehensive study to that date. As shown in Table 3.1, the topics covered economic activities and economic relations and, for the first time, it discussed social conditions. This wide-ranging study of the Shenzhen Zone and its encompassing Municipality is divided into three parts: the first part summarizes the rationale of export processing zones and the Municipality's geographical and historical setting; the second part documents and maps the plans,

progress and problems of the main economic activities - agriculture, mining, manufacturing, real estate, transport, tourism and the economic relationships with Hong Kong; and part three investigates the impacts of Shenzhen on the local region, China and Hong Kong. In striving for such a comprehensive picture, the book has sacrificed some in-depth discussion on such significant topics as the ideological support for the special economic zones policy, the risks confronting Shenzhen from being exposed to fluctuations in the international market place, and the implications of possible over-investment in real estate. The Zone's needs for technological know-how and managerial skills and the importance of the Zone as a platform for discussing and testing new economic policies were also not examined.

L.T. Sigel's (1983) more extensive coverage of the economy and a consideration of labour policy has compensated, however, for some of the omissions in the study of Shenzhen by Wong and others (see Table 3.1). In particular, Sigel draws attention to the important function of the Zones as pacesetters in China's thrust towards modernization. His broader perspectives of the Shenzhen and Zhuhai experiments have ranged from China's open door policy through general features and characteristics of the Zones to a comparison with other Asian zones. Sigel has attempted to identify the motives and methods of implementing the zone policy. Drawing attention to the successful case of Shekou, the various administrative and economic reforms planned or undertaken in the Zones are discerned. Having spanned a wide spectrum of issues, Sigel concludes that the more tangible benefits of greater foreign investment, expanded foreign exchange and job creation are minor compared to their contribution to spearheading economic reforms. Nevertheless, Sigel's study did suffer from the absence of a coherent theme.

Zhang Rongfeng's (1983) monograph entitled 'Zhonggong Jingji Tequ De Yanjiu' [Research on the Special Economic Zones of China] was, however, more coherent in its identification of the objectives and special features of the Zones, and its systematic assessment of the possible economic effects and likely future developments of the Zones. On the basis of the characteristics and features of the Zones, as well as the experience of other export processing zones, Zhang has argued that the main contribution of the Zones will be found in increasing national income through direct channels and serving as a test ground for economic reforms. Forecasts on the future development of the Zones by Zhang are based on an examination of the investment environment of the Zones, an exploration of potential linkages and the possibilities of establishing backward linkages with the rest of China. This appraisal led Zhang to a number of conclusions: that the Zones have failed to utilize their assets; that among other economic sectors, tourism and light industry possess relatively better markets; and that backward linkages will be

difficult to establish. Thus, Zhang's monograph has offered a strategic study based on preliminary analysis of the economic features and organization of the Zones.

Collectively, these five descriptive studies have documented major events, detailed plans and progress, and outlined early development problems. These studies did not venture beyond preliminary analysis. As the development of the Zones have proceeded apace, these initial analyses have become quickly dated and out of touch with current developments. For example, the problems of establishing backward linkages highlighted by Zhang (1983) have been overcome through the Government's deliberate policy of forging linkages between the Zones and the domestic economy.

There was no unanimity among the writers over the development of the Special Economic Zones. Wong (ed.) (1982:106) has optimistically remarked that 'the Shenzhen Special Economic Zones seems quite adequate in fulfilling the primary objectives of introducing modern technologies and allowing the Chinese leaders to observe and to understand how the economic systems under capitalistic management works'. In contrast, Zhang (1983:90-2) viewed the future with apprehension. Another divergence of opinion focused on Hong Kong's contribution to the Zones and Shenzhen in particular. Wong (1982) regarded the Hong Kong relationship as mutually beneficial. Conversely, Zhang (1983) argued that the close proximity of Hong Kong to the Zones has strengthened their 'foreign enclave' status by inhibiting backward linkages and copying its overheated investment environment (unnecessarily heightening wage levels). More contentious opinions are found in the strategic and theoretical studies.

STRATEGIC AND THEORETICAL STUDIES

Thirty-nine separate papers are considered. These include studies that were part of two collaborative exercises: a monograph prepared by the Geography Department of the Zhongshan University in Guangzhou entitled *Jingji Tequ Dili Wenji* (Collected Work on the Special Economic Zones) published in 1981, and a compiled resume of 113 Chinese writings on thirteen special economic zones issues compiled by the Guangdong Research Centre of Special Economic Zones (GRCSEZ), published in the *Yearbook of China's Special Economic Zones 1983*. Before discussing the material on specific issues, the material covering the broader topics is reviewed.

General Studies

As shown in Table 3.2, there have been fifteen studies on general planning and development problems of the Special Economic Zones. These studies can be further subdivided into two groups: (a) those examining the problems and factors of development confronting the Special Economic Zones; and (b) those discussing the strategic planning of the Zones.

Development problems. Initial development problems have been the topic of papers by Wong Kwan Yiu (1981, 1982), Zeng Muye (1982), He Jiasheng (1984a) and the reviewed article of Guangdong Research Centre of Special Economic Zones (1982b). Other pertinent studies have focused their attention on two major aspects of development: (a) economic structure and (b) legislation. Papers reviewed by the Guangdong Research Centre of Special Economic Zones have made a particular contribution to these two topics.

(a) Economic structure. There are two basic foci in the academic opinions on the economic structure gathered by the Guangdong Research Centre of Special Economic Zones: the first has concentrated on the ownership of the means of production in terms of sources of investment; and the second has pinpointed the structure of productive forces and has been particularly concerned with the level of technology. There was general agreement that capital should be derived from foreign sources. Zeng Muye and Li Kegang (GRCSEZ, 1982e) have favoured joint ventures but Guan Qixue advocates cooperative production (GRCSEZ, 1982e) and Lu Zhuosen (GRCSEZ, 1982e) has argued for sole proprietorship. Similarly, diverse views have been expressed on whether industry should be capital-intensive or labour-intensive. Liang Zhisen (GRCSEZ, 1982e) has argued that the former should be the long-term aim but the latter should be welcomed in the short term. It has been generally agreed that there should be no restrictions on economic activities. Although light industry should be the prime activity and agriculture should concentrate on fresh produce, commerce, property development and tourism should also be encouraged. Concerning the policy of economic planning, the most popular opinion is that the State will control overall planning (i.e. land use planning, industrial allocation and bank credit) in keeping with socialist tenets, but market prices should determine the operation of these activities at the micro level (GRCSEZ, 1982c). A transitional period in switching from a state planning economy to a market economy is envisaged. Both state and foreign enterprises, however, should be subject to Government planning targets.

(b) Legislation. The legislation underpinning the economic structure of the Zones has been discussed by Wang Zhiyuan (1981, 1982), Chu Kim Yu (1983b), Li Xueling and others (GRCSEZ, 1982d). While Wang has stressed the importance of a sound legal system and expounded theoretically on the principle of legislation, Chu has made a preliminary assessment of the legal system under construction in Shenzhen. The reviewed articles of the Guangdong Research Centre of Special Economic Zones have canvassed the same issues, emphasizing the need, urgency and principles of establishing strong systems of legislation, judiciary and arbitration.

Strategic planning. There are five key studies on strategic planning by Zheng

Weiming (1982), Lam Kin Che (1983a), Kwok Yin Wang (1983), Sit fung Shuen (1981) and Yan Zexian (1982). Zheng has disclosed the tentative Master Outline Plan, and Lam has severely criticized it. Sit has stressed the high demand for land in Hong Kong and Yan has discussed the direction of development. The major research on this topic, however, is that undertaken by Kwok.

In analysing the economic and social impacts of the development of Shenzhen, Kwok (1983) has addressed the problems of strategic planning. He has pointed out that the special features of Shenzhen's economy - a mixed economy and heavy reliance on foreign investment - must, of necessity, dominate the strategies undertaken. Accordingly, a short-term, open-ended planning approach is recommended with phases based on the volume of public and private investment available. After scrutinizing the social and spatial characteristics of Shenzhen, Kwok has suggested that social investment will also be high. In particular, transport has been accorded a pivotal role in both economic and social development because of Shenzhen's position as a border transit point for people and goods. According to Kwok, Shenzhen's ultimate success will hinge on the quality of co-ordination between private and public sectors and different sections of the bureaucracy, the clarification of guidelines and controls prior to the adoption of the Master Outline Plan, and constant modification and feedback.

Specific Studies

As shown in Table 3.3, there have been more than twenty studies of individual policies or activities. Rather than attempt to consider each study in turn they are grouped into those concerned with public finance, particular sectors of the economy, economic relations with other parts of China and Hong Kong, and social topics.

Public finance. The introduction of Special Economic Zones has created a series of novel issues of public finance in communist China. These matters are conveniently grouped together in terms of taxation, land use fees, or currency.

(a) Taxation. Only studies by Zhou Weiping and Li Haifeng (GRCSEZ, 1982h) have canvassed this important and controversial topic. Both authors have investigated the nature and function of taxation in the Zones. Zhou, however, has gone further and examined ways of expanding government revenue and maximizing capital distribution. He has also commented on the Central Government's financial policy on the Zones, and advised on the formulation of taxation policies.

(b) Land use fees. The need to introduce land use charges has been a novel issue in communist China. It has attracted the attention of theoreticians such as Zhou Weiping, Huang Jiaju and Huangsun (GRCSEZ, 1982f) who have tried to explain and

determine the rate of fees from Marxist principles of 'land rent'. Their conclusion was that land use charges were an economic realization of land rights. Hence, absolute and relative differences were expected to exist in the Special Economic Zones. The debate as to whether the source of land use fees is single, arising from surplus labour of the Special Economic Zones, or multiple, taking into account the surplus value of Hong Kong and Macao, is still unresolved.

(c) Currency. Another controversial issue has revolved around the issue of the currency of the Special Economic Zones. Lin Hongqian and Liu Runhua (1984) have offered the most comprehensive study by drawing attention to the problems of three currencies circulating concurrently in Shenzhen, and considering the pitfalls of designating one of them as the sole currency in the Zones. Yuan Shibang (1981) and Zhang Yuanyuan (1983) have advocated a new currency for exclusive circulation in the Zones. Chu Kim Yu (1983c), however, has drawn attention to the problems of currency speculation if this suggestion is adopted. Conversely, Tang Huai (1981) has argued that China should not issue a special currency but should transform the Chinese Currency into an internationally convertible currency common throughout China. A further alternative proposed by Hu Mingli and Shi Biao (GRCSEZ, 1982g) suggests the creation of a Shenzhen Foreign Exchange Certificate to ease the present situation. Before these matters can be resolved there has been widespread argument that the banking system will have to be reformed (i.e. the China People's Bank should be empowered to act as the 'Central' Bank of the Special Economic Zones). There has also been the proposal by Yuan Shibang (GRCSEZ, 1982g) that foreign banks should be allowed to set up branches in the Special Economic Zones. These decisions will have far reaching repercussions on individual sectors of the economy.

Sectoral studies. Attention has been focused on the agricultural, industrial and the tourist sectors. An examination has also been made by Zhang Kedong (1981b) of the Zhuhai Special Economic Zone but this study of the port's economic potential is not pursued here.

(a) Agriculture. The direction and potential of agricultural development have been explored by Zheng Tianxiang and Wei Qingquan (1981) and Lei Qiang (1982). All authors have contended that since the Zones are close to overseas markets, they should concentrate on producing fresh agricultural produce. Also they have stressed that agricultural policy should be decentralized and controls relaxed. In particular, Lei (1982) has emphasized that both the use of domestic resources and advanced technology and foreign investment should be promoted. He has also reported that the agricultural reforms already undertaken in the Zones have produced favourable results.

(b) Industry. Recommendations on the type of industry that should be located in

the Zones have been made by Wu Yongming and Ni Zhaoqiu (1981) and Wong Kwan Yiu (1983a). Wu and Ni have specified the types of industries that should be encouraged in the Zone (e.g. electronics, textiles, oil refining) based on their survey of the geographical characteristics of the Zones, the nature of industries in export processing zones, and international market conditions. In contrast, Wong has been more concerned with the industrialization process. A three stage process of industrialization has been suggested together with recommended locations for different types of industry.

(c) Tourism. Studies of the tourist sector by Chen Qiaozhi, Zheng Muye and Luo Fuqun (GRCSEZ, 1982k) and Wang Yanyu (1984) have focused on the determinants of development. Collectively, they have distilled a set of favourable conditions: natural endowment, locational advantage, strong overseas kinship ties and outward orientation of the economy. Conversely, they have also recognized a series of deficiencies: lack of overall planning, lack of pre-feasibility research; over-investment in similar tourist facilities; and a disturbing 'get-rich quick' attitude. Not surprisingly, a series of policies for resolving these difficulties were recommended. However, these suggestions, as well as those recommended for the above two sections, cannot be viewed in isolation but must be considered with studies examining Shenzhen's economic relations with both her Chinese hinterland and Hong Kong.

Economic relations. Three studies, by Liao Yan and others (1981), Lin Bin and others (1982) and Sun Zhongwei (1983) have discussed Shenzhen's economic relations with its hinterland and Hong Kong. Liao and others have focused on the necessity of good communications between zonal and non-zonal areas of Guangdong to maximize the use of Guangzhou, the provincial city, and the Pearl River Delta on which Shenzhen and Zhuhai are located. More specifically, Lin and others have expounded theoretically on the advantage, principles, direction and forms of economic cooperation between Special Economic Zones and Guangzhou. In contrast, Sun has focused on Shenzhen's relationship with Hong Kong which is expected to benefit the Hong Kong Government and investors rather than the people of China and Hong Kong - an outcome something less than envisaged by their respective Governments.

Social topics. The limited range of topics investigated have been transport, wage reforms, employment opportunities, environmental issues and 'spiritual civilization'. A transport study by Zhang Kedong (1981a) has highlighted the need for studies of passenger and freight flows prior to large-scale urban construction. Wage reform has been deemed necessary by Zheng Deliang, Chen Suhui and others (GRCSEZ, 1982i) as uniformity in wage levels and absence of dismissals do not fit the requirements of the Special Economic Zones. Employment opportunities provided by the Special Economic Zones have been analysed by Wang Zhengxian (1981, 1982), who has concluded that

they cannot be a panacea for China's employment problem. Adverse environmental effects of accelerated economic development on Shenzhen's environment have been considered by Lam Kin Che (1983c) and Hsu Sheng I (1983), particularly in relation to water and air pollution, and remedial measures proposed. Building a socialist spiritual civilization has been considered by theorists such as Zhang Keliang, Sun Ru (GRCSEZ, 1982l) to be as important as the construction of material civilization typified by Shenzhen.

Resume

The publication of a considerable number of prescriptive studies has been timely. As Special Economic Zones in China are in their infancy, there is the need for strategic studies to map out their future development. All that this literature survey of strategic studies has attempted has been to provide brief insights into the debates over the principles involved in formulating zonal policy. There is still a need, however, for further empirical studies to assess the viability of recommendations and to formulate new recommendations. The theoretical derivation of policies alone does not suffice.

TOPICAL STUDIES

The bulk of this set of studies has been published as articles but there are two major edited collections: *The Largest Special Economic Zone in China - Shenzhen* (Chu Kim Yu, 1983) published in Hong Kong and *Zhongguo Tequ Jingji* [The Economy of China's Special Economic Zones] (Zhao Yuanhao and Chen Zhaobin, 1984) published in China. Rather than consider these studies as a whole they are divided into those examining economic issues and those studying social problems.

Economic Issues

Nature of economy. There has been considerable theoretical debate about whether the economy should be socialist based on state and collective investment (Yu Guangyuan, 1983), state capitalist with a role for foreign enterprises, capitalist underpinned by foreign investment, or a hybrid based on a mix of external and internal influences (see GRCSEZ, 1982a). In a bid to resolve this theoretical issue, an empirical analysis by He Jiasheng (1984b) has sought to differentiate the Special Economic Zones from similar areas in capitalist countries, the Zones from the future Special Administrative Zones of Taiwan and Hong Kong, the Zones' societal nature from their economic organization, and the Zones and non-Zones in China. He concluded that the Special Economic Zones were based on a mixed economy dominated by state capitalism and operated under the guidance of a socialist government.

Management. As shown in Table 3.4, there have been few studies of the Zones' management in general, and economic, administrative and legal structure in particular. Most of these studies are very brief. Nevertheless, they provide important insights into the management of Special Economic Zones.

(a) General. There has only been one study on the general management of the Zones. The joint article by Wong Kwan Yiu and Chu Kim Yu (1983) has attempted to assess the investment environment of Shenzhen. The seven aspects reviewed range from the administrative system, development and enforcement of legislation, through the financial system, land policy and infrastructural provision, to labour and labour productivity, entrepreneurship and preferential treatment. They concluded that investment risk in the Shenzhen Zone was still high.

(b) Economic structure. The most comprehensive study of economic management has been undertaken by He Jiasheng (1984c) but Chu Kim Yu (1983e) has also contributed. By examining the Zones' management in foreign trade, taxation, and economic planning, and their financial commitment to the Central Government, He concluded that the Zones enjoyed a high, though not full, degree of autonomy. At a micro scale, Chu has scrutinized the pricing of land in the Shenzhen Zone, and commented that the principle of exchange value has been employed and the concept of 'differential land rent' applied. Chu further remarked that upon the completion of massive land development, the market will exert a greater effect on land pricing in Shenzhen.

(c) Legal structure. An analysis of the legal system in the Special Economic Zones is found in Jiang Zhenliang's article (1983). A major part of the article is devoted to the delineation of the unique feature of the Zones. Nevertheless, Jiang's analysis also includes an examination of laws and ordinances governing the Zones. As the review was, at best, a preliminary analysis, further work is required on the legal structure governing the Special Economic Zones.

(d) Administrative structure. Chu Kim Yu (1983a) has investigated administrative changes in Shenzhen Zone. He has demonstrated that, before January 1982, the administrative structure of the Zone was riddled with overlapping responsibilities. Since then, the administrative structure has been simplified 'to attract more overseas investors' (Chu, 1983a:182).

Planning and development problems. Economic planning for Shenzhen has been discussed only by Chu Kim Yu (1983d). He points out that the targets set for industrial and agricultural growth are extremely high although their achievement may not be impossible. He also criticizes the mere target-setting of the plan. The more

popular topics of physical planning and development have been discussed by Yeh Gar On (1983), Lam Kin Che (1983b) and Wong Kwan Yiu (1983b,c). Yeh (1983) has considered land development in the Shenzhen Zone by detailing the Master Outline Plan, the procedure of land development, and canvassing Shenzhen's growth, factors of investment and the need to compromise between the planning standards of both China and Hong Kong. Lam (1983b), however, has discussed massive land development and justifies it in terms of the Leninist philosophy, the financial situation in China and the principles underlying the development of Shenzhen. In contrast, Wong (1983b, 1983c) has concentrated his attention on two development models: Shekou which has been managed by the China Merchants Steam Navigation Company; and Chiwan which has been developed as a supply base for South China Sea oil exploration. It is anticipated by Wong that these models will be incorporated into plans for other sections of the Zone. Shenzhen Old Town, however, will be redeveloped into a low density commercial and tourist centre with an 'oriental style'. He has also described the resettlement process of affected households.

Economic activities. Studies of industry (Hu Youqing, 1984b), agriculture (Zhang Zhangcai and Hu Youqing), tourism (Wang Yanyu), property development (Zhen Qinfeng) and commerce (Zhang Zhangcai) have been incorporated in Zhao and Chen's (1984) edited readings entitled *Zhongguo Tequ Jingji* [The Economy of China's Special Economic Zones]. All authors have discussed characteristics, trends, progress, strategies, problems and contribution of the particular sector to the Zones' overall development. Zhang's (1984) analysis of commercial activities was an exception as he considered the transformation of the supply and management systems. Another special feature is Chen's (1984) discussion of the policy of land use fees and commodification of housing in conjunction with property development. Other studies on agriculture and tourism have been undertaken by Lee Fong Mo Kwan (1983a, 1983b and 1983c). Although these studies provide interesting information, the interconnections between individual sectors have not been specified.

External and internal relations. Both external and internal relations have to be discussed in examining the Special Economic Zones. Those with Hong Kong are discussed before considering the degree of integration between zonal and non-zonal China.

(a) Relations with Hong Kong. Economic relations with Hong Kong have received some attention in two semi-academic journals published in Hong Kong: *Wide Angle* and *The Seventies* (now renamed as *The Nineties*). In *Wide Angle*, Chen Kun Yao (1983) has argued that Shenzhen Special Economic Zone could be seen as a weapon to force Hong Kong to concentrate on capital-intensive industry. The slow progress of

Shenzhen's development, however, has undermined this proposition. In *The Seventies*, Liu Pui King (1982b) has compared Shenzhen's industrial environment with industrial estates in Hong Kong and concludes the former will become a strong competitor unless the colonial government improves its land policy and assistance to firms.

(b) Relations with China. A comprehensive account of the Special Economic Zones' economic relations with China has been provided by Hu Youqing (1984a). After detailing the scale of the economic integration, Hu has outlined its purposes and significance. In particular, he has highlighted that the integration was intended to increase the attractiveness of the Zones to foreign investors. In the process, the transmission of advanced technology to the interior would be enhanced. Also Hu has emphasized that the initial results of integration had been favourable to both the Zones and the non-zonal area of China.

Development strategies. Prediction of the future economic success of the policy of creating Special Economic Zones has been provided by Yuan Shibang (1979) and Sun Ru (1980). Both have attempted to justify the policy, drawing precedents from Lenin's Concession Area Program introduced under the New Economic Policy (1921-29). They have argued that socialist countries should and could make use of the material wealth, advanced technology and scientific management of the more developed capitalist economies to enhance their economies. In particular, Yuan has emphasized that the policy of Special Economic Zones would not result in any loss in sovereignty and would ultimately provide the basis for breaking away from control and suppression exercised by imperialist countries. This viewpoint has been challenged by Chossudovsky (1982). According to his analysis, the Zones' policy has merely established extraterritorial rights for foreigners similar to those set up after the Opium War (1839-42). At best, the Zones have encouraged an 'overflow' of small scale manufacturing firms from Hong Kong. As a result, the Zones are likely to have a backwash effect on the economic development of the interior as the enclaves have prevented forward and backward linkages being generated. Even the much anticipated transfer of technology has not materialized. Smuggling and bribery engendered in the Zones have also strained China's balance of payments. As Chossudovsky's (1982) claims have not been supported by empirical evidence, his negative statements remain unsubstantiated. This controversial nature of the Zones has been underlined by Sit Fung Suen's (1981) open-ended projection of their future.

More recent empirical analysis of the Zones by Sun Ru (1982), He Jiasheng (1984a), and Chen Zhaobin (1984a) have argued that they have provided a successful development strategy. In particular, Sun and He contended that the objectives of absorbing foreign capital, foreign exchange, foreign technology, management skills and

technicians have been realized in Shenzhen. Indeed, both authors have argued that the Zones will serve as test-grounds for spreading management reforms throughout the country. In particular, Sun has pinpointed that the Shekou Zone has not only stimulated and improved enterprise management but also bureaucratic reforms. Also He (1984b) has detailed that the zone policy has developed industry and agriculture, increased revenues, expanded the resources of the local regions, and provided jobs in construction and retailing. As there are some doubts over the statistics used by both Sun and He, their case as yet, is rather unconvincing. Chen also argued that although the Zones were quite far from achieving all the goals, they had already made several breakthroughs in management and development. Hence, he was very confident that the Zone would make an ample contribution to China's modernization.

Social Issues

Population. Zonal population has been discussed by Ng Yen Tak (1983a) and Zheng Tianxiang and others (1981). Ng has focused on the recent population patterns by detailing growth rates, rural-urban ratios, population planning, migration and types of labour forces. Zheng and others have emphasized population problems and stressed the importance of well-designed plans for attracting labour to the Zones. In particular, Zheng and others have highlighted the adverse effect on the rural area, prompting them to advocate labour-intensive industry using superseded technology in the recruitment areas.

Living conditions. There have only been two studies on living conditions in the Zones, by Ng Yen Tak (1983b) and Chiu (1983). Although incomes have increased in Shenzhen, Ng (1983b) has argued that the average salaried worker has found it difficult to keep pace with the rising prices of basic necessities. Factory workers, however, have coped with the situation more easily as they have enjoyed rising wages. Nevertheless, housing, medical, recreational and education facilities were inadequate. Not surprisingly, Ng has recommended improved facilities for the rapidly expanding population that is continuously being fuelled by high immigration. Chiu (1983) has assessed the extent of social and spatial changes taking place in Shenzhen Town in the context of development and modernization. Judging from rising wage levels and living standards, better supply of goods, and changes in attitude and economic ideology, Chiu proposes that development and modernization have taken place, although different sectors are advancing at different rates. However, leisure facilities need to be improved if socialist attitudes and ideology are to be preserved.

Labour policy. Four authors have focused their attention on labour policy: the wage system has been discussed by Zhang Yongming (1981) and Luo Fuqun (1981), and

the general labour policy by Wu (1982) and Chen Suhui (1984). In discussing wages, Zhang (1981) has detailed the new system experimented in the Shekou Industrial Zone. In contrast, Luo (1981) has outlined the nature of the two main wage systems used in the Zones: the rigid system used in state enterprises, and the more flexible system used in foreign enterprises. On the basis of this evidence, Luo has proceeded to recommend reforms to the wage system. In examining general labour policy, Wu has considered China as a whole and Shenzhen in particular with regard to recruitment, housing, welfare arrangements, employment security and sources of workers. Chen (1984) has gone on to detail the reforms introduced in employment, wages and insurance to bring out the contrast between the old incentive-oriented systems and the new, flexible and decentralized system.

Spiritual civilization. The construction of socialist spiritual civilization has been a perennial concern of the Chinese authorities and socialist ideologists. Yet, there has only been one important study on the subject, prepared by Li Foyan and others (1984). After examining the provision and condition of education, technology-related and cultural activities in Shenzhen, they comment that spiritual civilization is in progress, but further measures are recommended to quicken the process.

Resume

The topical studies have provided a wide-ranging series of insights into the Special Economic Zones. Their emphasis has been on characteristics, trends, progress, reforms and problems. They have not highlighted, however, linkages between different economic sectors and the connections between the Zones and the world economy. Besides an improved statistical base, therefore, there is a pressing need for an holistic conceptual framework to cover both economic issues and social problems.

Appendix III

**STATEMENT OF FULLY FOREIGN-OWNED
ENTERPRISES IN FOUR SPECIAL ECONOMIC
ZONES IN CHINA, 1979-1983**

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Yongming Foodstuff Factory	Shenzhen City	Yongming Foodstuff Factory H.K.	47	5	1980.9
Lmk Nam Sang Dyeing Factory	Shenzhen City	Lmk Nam Sang Dyeing Factory Ltd H.K.	927	25	1980.5
Xiadong Shrimps Raising Pond	Shenzhen City	China Resource Co., Ltd. H.K.	206	20	1980.11
Hai Fung Building	Shenzhen City	Overseas Construction Co. H.K.	2,434	commercial 30/ residential 45	1981.1
Astoria Building	Shenzhen City	Astoria Development Co., Ltd	1,146	30	1981.1
Commerce & Dwelling Building	Shenzhen City	Huanguang Co. H.K.	1,217	30	1981.1
Hing Yip Building	Shenzhen City	Ta Kung Pao Bao Gang Development Co. H.K.	1,217	commercial 30/ residential 45	1981.1
Tun Hing Building	Shenzhen City	Luen Hing Lee Co. H.K.	1,146	commercial 30/ residential 40	1981

Note: Including some fully foreign-owned enterprises, which enjoy the treatment of special zones, located in Shenzhen outside the special zone.

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Hoi Sing Building	Shenzhen City	Hoi Sing Co. H.K.	730	30	1981
Holiday Building	Shenzhen City	Store and Transportation Co. H.K.	5,370	commercial 30/ residential 45	1981
Vinco Commerce & Dwelling Building	Shenzhen City	Vinco Trading Co. H.K.	816	commercial 30/ residential 45	1981
Sen Lee Bau Sewing Machine Co., Ltd. She Kou Branch	Shenzhen City	Sen Lee Bau Sewing Machine Co., Ltd. H.K.	54	-	1981.10
Chia Tai Conti Feed Factory	Shenzhen City	Chia Tai Conti Co., Ltd. H.K.	2,685	30	1981.1
Chiwan Cement Prefabricated Components Plant	Shenzhen City	Huatai Enterprise Co. H.K.	358	-	1981
Linyou Quarry	Shenzhen City	Union Trading Co. H.K.	15	-	1981
Asia Amusement Sport Center	Shenzhen City	Boading Investment Co. H.K.	8,950	30	1981.5

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Linyou Motor Repair Shop	Shenzhen City	Union Trading Co. H.K.	18	-	1981
Commerce & Dwelling Building	Shenzhen City	Boading Investment Co. H.K.	1,217	commercial 20/ residential 50	1982.1
Guangdong Building	Shenzhen City	Guangdong Enterprises Ltd. H.K.	1,371	-	1982.1
Mr Lu Industry (Shekou) Co., Ltd	Shenzhen City	Mr Lu Industry Co., Ltd. H.K.	252	25	1982.4
Kai Da Enterprise Co., Ltd	Shenzhen City	Hoi Da Industry Co., Ltd. H.K.	672	25	1982.6
Chungmei Electronics Co., Ltd.	Shenzhen City	Lowde Electronics (Far East) Co., Ltd. H.K.	252	25	1982.7
Far East Gold Coin Feed China Co., Ltd.	Shenzhen City	Far East Gold Coin Co., Ltd. H.K.	252	25	1982.11
Wineshop & Restaurant	Shenzhen City	Huahai International Trading Co. H.K.	617	15	1982.4

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Holhong Vessels Engineering Co., Ltd.	Shenzhen City	Hoi Tung Co., Ltd. H.K.	269	-	1982.1
Huangbeiling Chemical Industry Storehouse	Shenzhen City	Sun Hing Co. H.K.	-	-	1982.4
Shahe export Products Warehouse	Shenzhen City	Twee Co. H.K.	-	-	1982.4
Nantou Flower Nursery	Shenzhen City	Ruqun Co. H.K.	67	20	1982.1
Xiamen Floor Tile Factory	Xiamen, Fujian	Yen Wah Enterprise Co. Singapore	450	30	1982
Hong Kong and Shanghai Building	Shenzhen City	Central Construction Co. H.K.	2,251	30	1983.11
Pioneer Corporation	Shenzhen City	Pioneer Enterprise Co., Ltd. H.K.	179	25	1983.4
Far East China Flour Mill & Co., Ltd.	Shenzhen City	Far East Flour Mill & Co., Ltd. H.K.	636	25	1983.3

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Sanyo Electric Machinery (Shekou) Co., Ltd.	Shenzhen City	Sanyo Electric Machinery (H.K.) Co., Ltd.	382	25	1983.4
Far East Biscuit Factory Co., Ltd.	Shenzhen City	Far East Biscuit Factory Co., Ltd. H.K.	191	25	1983.9
Chung Pak Aged Sanatorium	Shenzhen City	Chung Pak Aged Sanatorium H.K.	10	60	1983.7
Overseas Chinese Continuation School	Shenzhen City	Washington-Yabli Co. USA	153	50	1983.5
Wing Koo Decoration Enterprise Co. H.K.	Shenzhen City	Wing Koo Fitting & Designing Co. H.K.	6	10	1983.1
Feed Factory	Shantou City	Chia Tai Con International Co., Ltd. H.K.	100	30	1983.5
Huagai Products Factory & Co., Ltd	Shantou City	Sunyick Industry Co. H.K.	14	12	1983.7
Shantou-Fencheng Industry Co., Ltd	Shantou City	Fencheng Industry Co., Ltd. H.K.	14	30	1983.7

Name of Enterprises	Location	Name and Country (Region) of the Foreign Partner	Agreed (Contracted) Amount of Foreign Investment (US\$10,000)	Duration (Year)	Approved Date (Year, Month)
Guangming (Shantou) Co., Ltd	Shantou City	Guangming Co., Ltd. H.K.	14	3	1983.8
Multiple-Commercial Building	Shenzhen City	Changlee Engineering Co. H.K.	-	-	1983.3
Guest House and Commerce & Dwelling Building	Shenzhen City	Chang Shun Trading	-	20	1983.9
Zhongmei Electronics (China) Co., Ltd.	Shenzhen City	Giant Panda Co., Ltd. H.K.	191	-	-
Shenzhen City Xinhua Brickfield	Shenzhen City	Sin Yu Trading Co., Ltd. H.K.	-	-	1983.2
Nanyang Commercial Bank Ltd.	Shenzhen City	Nanyang Commercial Bank Ltd. H.K.	54	-	-
Store of Elfa Soldering Tin Co., Ltd.	Shenzhen City	American Elfa Soldering Tin Co. H.K.	183	-	1980
Xincun (New Housing Estate) Flower Nursery	Shenzhen City	Yeeziyun Promoting - Center, H.K.	9	-	-

Source: 1984 Almanac of China's Foreign Economic Relations and Trade:1146-51.

Appendix IV

MAIN FACTORS OF SHEKOU'S SUCCESS

The success of Shekou has given rise to the so-called 'Shekou Model'. This has been copied by the rest of the country. Under the management of the experienced China Merchant Steam Navigation Company, the main factors attributed to Shekou's success have been its efficient administration and effective labour policy. Three administrative characteristics have been identified as significant: the separation of politics and business, the streamlining of bureaucracy, and reforms in the cadre system. Basically, the separation of politics and business has underlined that the China Merchant Navigation Company has been able to govern Shekou without financial and administrative constraints. In turn, the State has agreed not to interfere nor subsidize the industrial zone provided that the zone's operation complied with the general policy of the country. Closely related to the segregation of business and politics has been the streamlining of the bureaucratic system.

Within the bureaucracy, the top organs have been the Party Committee and Management Committee. The actual administration, however, has rested with the Management Committee, which can decide all matters without consulting higher authorities (*Shenzhen Special Zone Herald*, 11 April 1984). As a bid to eliminate superfluous personnel, less than fifty cadres have been employed in the Committee's three offices (i.e. the General Office, the Chief Engineers' Office and the Accountants' Office). Under the administration of these offices have been thirteen specialized companies that have managed differing zonal facilities. Although these companies have been subject to the financial supervision and inspection by the Management Committee, they have been granted full power to run their businesses (*Shenzhen Special Zone Herald*, 11 April 1984; *Yangcheng Wanbao*, 22 September 1982). Also, these companies have been held accountable for profits and losses.

Reforms in the cadre system has been another means used to promote efficient management. As a corollary, there has been an emphasis on recruiting younger and more energetic personnel. In 1982, the average age of cadres had been lowered to 46 years in both the Party Committee and the Management Committee. Subsequently, recruitment has been opened to the whole country and applicants are chosen on the basis of merit rather than seniority (*Shenzhen Special Zone Herald*, 11 April 1984). The

appointees have been given a one-year training program before they have started full-time work. Similar changes have also been introduced in the labour policy.

Workers have been recruited from public advertisements. Employment conditions have been bound by the terms stipulated in the contract. Workers have been sacked where they have violated the contract (*Economic Reporter*, 9 July 1984). On the whole, changes in the wage system have gone through three phases. Before 1981, wages comprising both the basic and subsidized wages were little different from the conventional wage system. Between 1981 and October 1983, however, the policy of 'one plus one-point-one-five' was implemented. It was simply the addition of the 'industrial estate wage' which was 1.15 times that of the basic wage. This policy has reinforced work incentives but still retained many of the drawbacks inherent in the egalitarian wage system. Finally, in 1983, a revolutionary wage system was introduced in the zone - a system which was comprised of a basic wage, a duty wage and a floating wage. The most notable component was the floating wage which has accounted for 30 per cent of the total wage; it has been calculated in accordance with the performance of the enterprise and the worker himself (*Shenzhen Special Zone Herald*, 11 April 1984). Thus, the success of Shekou owes much to its administrative and labour reforms which have produced a less hierarchical, more efficient and performance-oriented workforce.